

## **Celiac Disease**

**Prepared for:**

Agency for Healthcare Research and Quality  
U.S. Department of Health and Human Services  
540 Gaither Road  
Rockville, MD 20850  
www.ahrq.gov

**Contract No. 290-02-0021**

**Prepared by:**

University of Ottawa Evidence-based Practice Center, University of Ottawa, Ottawa, Canada

*Co-directors:* David Moher, PhD and Howard M. Schachter, PhD

*Investigators*

Alaa Rostom,\* MD, MSc, FRCPC  
Catherine Dubé,\* MD, MSc, FRCPC  
Ann Cranney,\*<sup>†</sup> MD, MSc, FRCPC  
Navaaz Saloojee,\* MD, FRCPC  
Richmond Sy,\* MD, FRCPC  
Chantelle Garritty, BA, DCS  
Margaret Sampson, MLIS  
Li Zhang, MLIS  
Fatemeh Yazdi, MSc  
Vasil Mamaladze, MD, PhD  
Irene Pan, MSc  
Joanne McNeil,\* RN  
David Moher, PhD  
David Mack,\* MD, FRCPC  
Dilip Patel,\* MD, FRCPC

Chalmers Research Group; \*Gastrointestinal Clinical Research Unit; <sup>†</sup>Division of Rheumatology

**AHRQ Publication No. 04-E029-2**  
**September 2004**

This report may be used, in whole or in part, as the basis for development of clinical practice guidelines and other quality enhancement tools, or a basis for reimbursement and coverage policies. AHRQ or U.S. Department of Health and Human Services endorsement of such derivative products may not be stated or implied.

AHRQ is the lead Federal agency charged with supporting research designed to improve the quality of health care, reduce its cost, address patient safety and medical errors, and broaden access to essential services. AHRQ sponsors and conducts research that provides evidence-based information on health care outcomes; quality; and cost, use, and access. The information helps health care decisionmakers—patients and clinicians, health system leaders, and policymakers—make more informed decisions and improve the quality of health care services.

This document is in the public domain and may be used and reprinted without permission except those copyrighted materials noted for which further reproduction is prohibited without the specific permission of copyright holders.

**Suggested Citation:**

Rostom A, Dubé C, Cranney A, Saloojee N, Sy R, Garritty C, Sampson M, Zhang L, Yazdi F, Mamaladze V, Pan I, McNeil J, Moher D, Mack D, Patel D. Celiac Disease. Evidence Report/Technology Assessment No. 104. (Prepared by the University of Ottawa Evidence-based Practice Center, under Contract No. 290-02-0021.) AHRQ Publication No. 04-E029-2. Rockville, MD: Agency for Healthcare Research and Quality. September 2004.

## Preface

The Agency for Healthcare Research and Quality (AHRQ), through its Evidence-Based Practice Centers (EPCs), sponsors the development of evidence reports and technology assessments to assist public- and private-sector organizations in their efforts to improve the quality of health care in the United States. This report on *Celiac Disease* was requested and funded by the Office of Medical Applications of Research, National Institutes of Health (NIH) for the Consensus Development Conference on Celiac Disease as well as the National Institute of Diabetes and Digestive and Kidney Diseases, NIH. **Marian D. James, Ph.D., served as AHRQ's Task Order Officer in charge of overseeing the report development process.** The reports and assessments provide organizations with comprehensive, science-based information on common, costly medical conditions and new health care technologies. The EPCs systematically review the relevant scientific literature on topics assigned to them by AHRQ and conduct additional analyses when appropriate prior to developing their reports and assessments.

To bring the broadest range of experts into the development of evidence reports and health technology assessments, AHRQ encourages the EPCs to form partnerships and enter into collaborations with other medical and research organizations. The EPCs work with these partner organizations to ensure that the evidence reports and technology assessments they produce will become building blocks for health care quality improvement projects throughout the Nation. The reports undergo peer review prior to their release.

AHRQ expects that the EPC evidence reports and technology assessments will inform individual health plans, providers, and purchasers as well as the healthcare system as a whole by providing important information to help improve health care quality.

We welcome written comments on this evidence report. They may be sent to: Director, Center for Outcomes and Evidence, Agency for Healthcare Research and Quality, 540 Gaither Road, Rockville, MD 20850. **Questions regarding this report should be sent to [epc@ahrq.gov](mailto:epc@ahrq.gov).**

Carolyn M. Clancy, M.D.  
Director  
Agency for Healthcare Research and Quality

Jean Slutsky, P.A., M.S.P.H.  
Director, Center for Outcomes and  
Evidence  
Agency for Healthcare Research and Quality

Barnett S. Kramer, M.D., M.P.H.  
Director  
Office of Medical Applications  
of Research, NIH

Allen M. Spiegel, M.D.  
Director  
National Institute of Diabetes and Digestive and  
Kidney Diseases, NIH

The authors of this report are responsible for its content. Statements in the report should not be construed as endorsement by the Agency for Healthcare Research and Quality or the U.S. Department of Health and Human Services of a particular drug, device, test, treatment, or other clinical service.

## Acknowledgments

The authors would like to thank several individuals for their support of the present project: Keith O'Rourke, who helped with the statistical analysis; Karen Patrias, who helped with conducting the literature search; Gabriela Lewin, who assisted with the quality assessment; and Christine Murray and Isabella Steffensen, who assisted in the editing of the report and the generation of evidence tables.

## Author Contribution

Dr. Alaa Rostom was the lead investigator. He was involved in all aspects of the study design, management, planning, analysis and write-up, including article screening, data extraction, quality assessment, statistical analysis, and report write-up. Drs. Catherine Dubé and Ann Cranney were the second investigators. Dr. Catherine Dubé was involved in all aspects of study design, and planning and organization, including task management, article screening, data extraction, and quality assessment. She was the lead writer of Celiac 2 and 3. Dr. Ann Cranney was involved in all aspects of study design and planning, including article screening, data extraction, and quality assessment. She was the lead writer of Celiac 4, and oversaw the screening and data extraction for Celiac 3, 4, and 5. Dr. Navaaz Saloojee was involved in study planning, article screening, data extraction, and quality assessment, and was the lead writer of Celiac 5. Dr. Richmond Sy was involved in study planning, article screening, data extraction, and contributed to the writing of Celiac 4. Drs. David Mack and Dilip Patel were involved in study planning and article screening, in addition to being content experts in pediatric and adult celiac disease, respectively. They also reviewed and advised on the report write-up. JoAnne McNeal was involved in article screening and data extraction for Celiac 1 (serology) and Celiac 2 (prevalence).

Dr. David Moher was involved in all aspects of study design, management, planning, analysis, and write-up. He was the methodological content expert and reviewed and advised on all report conduct and documents. Chantelle Garrity was involved in all aspects of project planning and management, including liaison with all key partners. She oversaw the screening progress, document retrieval, and assisted in report management, review and write-up. Margaret Sampson was the lead information specialist and was involved in all aspects of the search strategy/key word design and refinement, in association with the information specialists at the NLM. She was involved in all aspects of article database management, including article retrieval, set-up of the online computerized SRS article screening and extraction system, and the development and write-up of the QUOROM Flow. Li Zhang was the information specialist involved in all aspects of SRS system management, article retrieval, and implementation of the SRS system. Dr. Vasil Mamaladze and Fatemeh Yazdi performed the data extraction of Celiac 1–serology and Celiac 2–prevalence. Irene Pan performed data extraction and quality assessment of Celiac 2–prevalence.

## Structured Abstract

**Context.** Celiac disease (CD) is a disorder of small bowel malabsorption. It is characterized by mucosal inflammation, villous atrophy and crypt hyperplasia that occur upon exposure to gluten, and clinical and histological improvement with withdrawal of gluten from the diet. The classical presentation of CD has now been shown to be less common than silent or atypical presentation, in which patients do not have intestinal symptoms. Untreated CD is associated with multiple important short- and long-term complications including nutritional derangements, anemia, reduced bone density, as well as intestinal lymphoma. In the vast majority of patients, CD is effectively treated with dietary modifications that eliminate gluten. Mounting evidence suggests that CD is actually considerably more common than previously believed and, therefore, this disorder warrants consideration for screening of at-risk patients, as well as possibly the general population.

**Objectives.** To conduct a comprehensive systematic review on five areas of CD: (1) sensitivity and specificity of serological tests; (2) prevalence and incidence of CD; (3) CD associated lymphoma; (4) consequences of testing for CD; and, (5) interventions for the promotion and monitoring of adherence to a gluten-free diet (GFD).

**Data Sources.** Staff of the National Library of Medicine performed a series of searches in support of the literature review of CD. Searches were run in the MEDLINE® (1966 to Oct 2003) and EMBASE (1974 to Dec 2003) databases for each of the five objectives and their respective sub-objectives separately.

**Study Selection.** Study selection for each objective was performed using three levels of screening with predetermined increasingly more strict criteria to ensure that all relevant articles were captured. Following a calibration exercise, two reviewers independently screened all studies using a web-based system allowed automatic identification of review disagreements. These disagreements were resolved by consensus.

**Data Extraction.** For each CD objective, a detailed and standardized data abstraction form was developed. For each objective, data abstraction was conducted by one reviewer and verified by another. The extracted data was further verified by one of the principal investigators. Quality assessments were performed using specific instruments for each of the included study types.

**Data Synthesis.** The data obtained from this review fell into several broad categories, which correspond in large part to the individual study objectives. Data for the sensitivity and specificity of each serological marker was considered separately, and studies were further divided according to the age group of the study population. Attempts were made to identify, explain, and minimize clinical and statistical heterogeneity in the included studies. A Pearson's Chi Square with  $n-1$  degrees of freedom, where  $n$  represents the number of included studies in an analysis, was calculated to assess statistical heterogeneity. Pooled estimates were only calculated if clinically and statistically appropriate. In situations where pooling was not performed, a qualitative systematic review was conducted.

To produce clinically useful pooled statistics, a weighted mean of the overall sensitivity and specificity from the included studies was calculated, along with 95% confidence intervals (CIs). The pooled estimates for the sensitivity and specificity were compared with a summary receiver operating characteristic (ROC) curve, calculated for the same group of studies as a second check of the estimates.

**Results/Conclusions.** This report has provided a systematic review of five broad areas (and corresponding sub-areas) of CD. Perhaps one of the most important findings of this report is the significance of how one chooses to define CD in the era of serological testing, and how this apparently clear-cut task has profound implications on all the results presented in this report. Specifically, can CD be diagnosed solely on the basis of serology? Is some degree of villous atrophy necessary for a diagnosis of CD. These questions have important implications downstream of the diagnosis as well. For example, do CD patients without symptoms or villous atrophy have the same risk of complications as those with villous atrophy. Is serological improvement on a GFD sufficient to reduce CD complications, or must there be documented histological improvement, and what degree of histological improvement is necessary?

The results of the Celiac 1 objective suggest that in the era of EMA and tTG antibody testing, AGA antibody testing in both children and adults has a limited role. The sensitivity and specificity of EMA and tTG are quite high (over 95% for sensitivity, and close to 100% for specificity), as are their positive and negative predictive values; however, one has to be aware that the reported diagnostic parameters are taken from studies in which the prevalence of CD was, for the most part, much higher than that seen in usual clinical practice. The positive predictive values reported for these tests will certainly not be as high as that reported when these tests are used to screen the general population. The bulk of the evidence on the diagnostic characteristics of these tests was derived from studies that defined CD as having at least some degree of VA.

HLA DQ2/DQ8 testing appears to be a useful adjunct in the diagnosis of CD. The test has high sensitivity (in excess of 90%-95%), however, since approximately 30% of the general population, and an even higher proportion of “high-risk” subjects (e.g., diabetics and family members) also carry these markers, the specificity of this test is not ideal. The greatest diagnostic utility of this test appears to be its negative predictive value.

Biopsy itself, when used with a strict cut-off requiring villous atrophy, appears to have high specificity, but poor sensitivity. Using a lower grade cut-off clearly improves sensitivity, but because of the wide differential of causes of histological lesions similar to Marsh I to IIIa, the specificity suffers. The use of histomorphometric measures such as quantification of gamma delta positive intraepithelial lymphocytes ( $\gamma\delta+$  IELs) are likely to allow for the use of lower grade cut-offs, while maintaining reasonable specificity. Ultimately, a trial utilizing multiple diagnostic tests in an attempt to capture as many CD patients in a clinically-relevant population as possible, along with a time dimension such as a response to a GFD or gluten challenge, is required to fully assess the diagnostic characteristics of biopsy alone. This type of study would be able to characterize the false-positive and false-negative rates, provided that all studied patients are followed forward in time.

The included prevalence studies demonstrated important differences between the studies including, execution, tests for prevalence assessment, and patient sampling. Thus, results have to be interpreted in the light of some of the limitations that have been identified regarding the diagnostic performance of the tests for CD. Nonetheless, the results of this report suggest that

CD is a very common disorder with a prevalence in the general population that is likely close to 1:100 (1%). Several high-risk groups with a prevalence of CD greater than that of the general population have been identified and include: those suspected of having CD; family members of CD patients; type I diabetics; and, those with iron-deficiency anemia (IDA) or low bone mineral density (BMD). Additionally, the review identified many other high-risk groups, including those with Down Syndrome, short stature, and infertility, to name a few. Their inclusion was however, beyond the scope of this report

The results of this report confirm that, apart from a few limitations, there is a strong association between CD and GI lymphoma. The report identified standard incidence ratios (SIR) for lymphoma that ranged from 4 to 40, and standard mortality ratios (SMR) that ranged from 11 to 70. A diagnostic delay—in particular a diagnosis of CD in adulthood as apposed to in childhood—is associated with poorer outcomes. Fortunately, several studies suggest that adherence to a GFD reduces the risk of lymphoma in CD patients.

The consequences of testing for CD in at-risk and symptomatic patients appears to be more straightforward, since these patients appear to be more compliant with a GFD and would be expected to benefit from this intervention. The data is less clear for asymptomatic screen-identified patients, particularly those who have truly silent CD and/or don't have fully-developed villous atrophy. On the one hand the outcome of such patients has not been extensively studied, and on the other hand compliance with a GFD appears problematic, particularly for those diagnosed in adulthood.

Finally, no specific interventions have been identified that promote adherence to a GFD, but education of patients and family members about CD and about the intricacies of a GFD, and participation in local celiac societies, has been shown to improve compliance. Although somewhat controversial, biopsy monitoring of adherence to a GFD appears to be important, since improvement in histological grade has been associated with improved BMD, IDA, and nutritional status. The serological markers appear to be adequate for detecting gross dietary indiscretion, and respond to a gluten challenge, but appear to have poor sensitivity for detecting lesser degrees of dietary indiscretion, and inadequately correlating with histological improvement at least in the short-term. It should, however, be noted, that we could not identify a controlled study that objectively determined the level of histological improvement that would be associated with improved outcomes, and this is an area for future study. Nonetheless, based on this report it would appear that follow-up biopsy, at least 1 year after a GFD in adults to document improvement of the histological grade, would be valuable.

# Contents

## Evidence Report

Chapter 1. Introduction .....	3
Overview .....	3
Definition of CD .....	4
General Definitions .....	5
Report Purpose and Target Population .....	6
Methodological Considerations .....	6
Chapter 2. Methods .....	9
Overview .....	9
Key Questions Addressed in This Report .....	9
Study Criteria Used in this Review .....	10
Histological .....	10
Populations .....	11
HLA DQ2/DQ8 .....	11
Analytical Framework .....	12
Study Identification .....	13
Search Strategy .....	13
Study Selection and Eligibility Criteria .....	14
Data Abstraction .....	17
Quality Assessment .....	19
Data Synthesis and Analysis .....	19
Chapter 3. Results .....	21
Celiac 1: Sensitivity and Specificity of Tests for CD .....	21
Serology .....	21
HLA DQ2/DQ8 .....	55
Biopsy .....	65
Quality Assessment .....	65
Celiac 2: Incidence and Prevalence of CD .....	66
Incidence of CD in the General Population .....	67
Prevalence of CD in the General Population—Different Geographic and Racial/Ethnic Populations .....	71
Prevalence of CD in Patients with Suspected CD .....	79
Prevalence of CD in with Type I Diabetes .....	81
Prevalence of CD in Relatives of Patients with CD .....	89
Prevalence of CD in Patients with IDA .....	92
Prevalence of CD in Patients with Low Bone Mineral Density (BMD) .....	95
Quality Assessment .....	96
Celiac 3: Risk of Lymphoma in CD .....	97
Literature Search .....	97
Measures of Risk .....	99

Study Characteristics .....	99
Types of Lymphomas .....	99
Incidence of Lymphoma and Related Mortality Data.....	100
Role of a GFD.....	102
Risk of Lymphoma Versus Symptoms .....	102
Impact of the Age at Diagnosis of CD.....	102
Risk of Lymphoma in Refractory CD.....	103
Quality Assessment.....	103
Celiac 4: Consequences of Testing for CD.....	104
Part A .....	104
Part B .....	109
Quality Assessment.....	117
Celiac 5: Promoting or Monitoring Adherence to a GFD.....	118
Monitoring Adherence to a GFD .....	118
Interventions to Promote Adherence to a GFD.....	121
Quality Assessment.....	122
Chapter 4. Discussion.....	123
Celiac 1: Sensitivity and Specificity of Tests for CD .....	123
Serology .....	123
HLA DQ2/DQ8.....	128
Biopsy .....	129
Celiac 2: Incidence and Prevalence of CD .....	139
Incidence in the General Population—Different Geographic and Racial/Ethnic Populations .....	139
Prevalence in the General Population—Different Geographic and Racial/Ethnic Populations .....	140
Prevalence of CD in Patients with Suspected CD .....	140
Prevalence of CD in Patients with Type I Diabetes.....	141
Prevalence of CD in Relatives of Patients with CD .....	141
Prevalence of CD in Patients with Anemia.....	142
Prevalence of CD in Patients with Low BMD.....	142
Celiac 3: Risk of Lymphoma in CD .....	143
Celiac 4: Consequences of Testing for CD.....	146
Expected Outcomes of Treatment of CD.....	148
Fractures/BMD/Osteoporosis/Osteopenia .....	149
Mortality .....	150
Celiac 5: Promoting or Monitoring Adherence to a GFD.....	150
Monitoring Adherence to a GFD .....	150
Interventions to Promote Adherence to a GFD.....	152
Strength of the Body of Evidence.....	153
Celiac 1 .....	153
Celiac 2 .....	154
Celiac 3 .....	154
Celiac 4 .....	154

Celiac 5 .....	154
Future Research.....	155
Conclusion.....	156
References and Included Studies .....	159
Abbreviations and Acronyms.....	183

## Tables

Table 1: Inclusion/exclusion criteria by level of screening .....	16
Table 2: Included studies for IgA-AGA in children .....	23
Table 3: Included studies for IgA-AGA in adults .....	24
Table 4: Included studies for IgA-AGA in studies including both children and adults.....	25
Table 5: Included studies for IgG-AGA in adults .....	27
Table 6: Included studies for IgG-AGA in children .....	28
Table 7: Included studies for IgG-AGA in studies including both children and adults.....	29
Table 8: Included studies for IgA-EMA-ME in adults .....	32
Table 9: Included studies for IgA-EMA-ME in children.....	33
Table 10: Included studies for IgA-EMA-ME in studies including both children and adults .....	34
Table 11: Included studies for IgG-EMA-ME in adults .....	36
Table 12: Included studies for IgG-EMA-ME in children.....	36
Table 13: Included studies for IgA-EMA-HU in adults.....	37
Table 14: Included studies for IgA-EMA-HU in children.....	37
Table 15: Included studies for IgA-EMA-HU in studies including both children and adults .....	38
Table 16: Included studies for IgA-tTG-GP in adults.....	41
Table 17: Included studies for IgA-tTG-GP in children .....	41
Table 18: Included studies for IgA-tTG-GP in studies including both adults and children .....	41
Table 19: Included studies for IgG-tTG-GP in studies including both children and adults .....	43
Table 20: Included studies for IgG-tTG-HR in studies including both children and adults .....	45
Table 21: Included studies for IgA-tTG-HR in adults .....	45
Table 22: Included studies for IgA-tTG-HR in children.....	45
Table 23: Included studies for IgA-tTG-HR in studies including both children and adults .....	46
Table 24: Included studies for combination IgA and IgG AGA, when either test is positive .....	49
Table 25: Included studies for combination IgA and IgG tTG-HR, when either test is positive..	49
Table 26: Included studies for combination IgA-AGA and IgG-EMA-HU, when either test is positive.....	49
Table 27: Weighted pooled estimates with 95% CIs and heterogeneity identified .....	52
Table 28: HLA studies with biopsied cases and controls.....	56
Table 29: Prevalence/frequency of HLA DQ2 and HLA DQ8 in prevalence and mixed-design studies, and in case-control studies with HLA DQ8 data.....	59
Table 30: Sensitivity/specificity (calculated) for HLA DQ2 in case-control studies .....	60
Table 31: Sensitivity/specificity (calculated) for HLA DQ2 in mixed-design studies .....	62
Table 32: Sensitivity/specificity (calculated) for HLA DQ8 .....	63
Table 33: Sensitivity/specificity (calculated) for HLA DQ2 or DQ8 .....	64
Table 34: Included studies of incidence of CD in the general population.....	68
Table 35: Prevalence of CD by country .....	73

Table 36: Prevalence of CD by serological screening test.....	76
Table 37: Prevalence of CD by statistical percentiles.....	77
Table 38: Included studies for prevalence of CD in patients with suspected CD.....	81
Table 39: Included studies of prevalence of CD in type I diabetes .....	84
Table 40: Summary of prevalence of CD in type I diabetes by age groups and screening test....	88
Table 41: Prevalence of CD in relatives of CD patients .....	91
Table 42: Included studies of CD in adult patients with anemia .....	93
Table 43: Summary of prevalence of CD in adult patients with anemia by population and screening test .....	95
Table 44: Prevalence of CD in patients with low BMD .....	96
Table 45: Included studies for risk of lymphoma in CD.....	98
Table 46: Results of study assessing $\gamma\delta$ + IELs in patients with and without CD .....	132
Table 47: Results of study assessing density of $\gamma\delta$ + IELs in patients with untreated CD, treated CD and control patients .....	133
Table 48: Results of study comparing density of $\gamma\delta$ + IELs in patients with confirmed CD, those undergoing investigation for CD, and control subjects .....	133
Table 49: Results of study comparing IEL density and villous/crypt ratio in patients with a suspicion of CD, and 59 biopsy-negative controls with dyspepsia .....	134
Table 50: Results of study assessing IEL density in routinely stained specimens compared with specimens stained with the CD3 antibody.....	134
Table 51: Results of study comparing IEL density and villous distribution among patients suspected of CD.....	135
Table 52: Results of study assessing patients with suspected CD and Marsh I or II, before and after a GFD .....	137

## Figures

Figure 1: Analytic framework.....	12
Figure 2: IgA-AGA in children with CD .....	25
Figure 3: IgA-AGA in adults with CD.....	26
Figure 4: IgA-AGA in adults and children with CD .....	26
Figure 5: IgG-AGA in adults with CD.....	29
Figure 6: IgG-AGA in children with CD .....	30
Figure 7: IgG-AGA in children and adults with CD .....	30
Figure 8: IgA-EMA-ME in adults with CD .....	34
Figure 9: IgA-EMA-ME in children with CD.....	35
Figure 10: IgA-EMA-ME in adults and children with CD .....	35
Figure 11: IgA-EMA-HU in adults with CD .....	38
Figure 12: IgA-EMA-HU in children with CD.....	39
Figure 13: IgA-EMA-HU in adults and children with CD.....	39
Figure 14: IgA-tTG-GP in adults with CD .....	42
Figure 15: IgA-tTG-GP in children with CD.....	42
Figure 16: IgA-tTG-GP in adults and children with CD.....	43
Figure 17: IgG-tTG-GP in adults with CD .....	44
Figure 18: IgA-tTG-HR in adults with CD .....	46

Figure 19: IgA-tTG-HR in children with CD .....	47
Figure 20: IgA-tTG-HR in adults and children with CD .....	47
Figure 21: PPV and prevalence from individual studies.....	53
Figure 22: NPV and prevalence from individual studies.....	53
Figure 23: PPV based on the pooled estimates of sensitivity and specificity .....	54
Figure 24: HLA DQ2 .....	64
Figure 25: HLA DQ2 and DQ8.....	65
Figure 26: Frequency distribution of prevalence of CD by serology among included studies.....	77
Figure 27: Frequency distribution of prevalence of CD by biopsy among included studies.....	78
Figure 28: Prevalence of CD by country.....	78
Figure 29: General population prevalence in relation to sample size .....	79
Figure 30: Prevalence of CD in diabetes by study size.....	89
Figure 31: PPV based on pooled estimates of sensitivity and specificity .....	147

## Appendixes

- Appendix A: Histological Data
- Appendix B: Search Strategies
- Appendix C: Data Assessment and Data Abstraction Forms
- Appendix D: Quality Assessment Forms
- Appendix E: Summary ROC Curves
- Appendix F: Modified QUOROM Flow Chart
- Appendix G: Raw Pooled Data
- Appendix H: Biopsy Results
- Appendix I: Evidence Tables
- Appendix J: Quality Assessment
- Appendix K: Additional Acknowledgments
- Appendix L: List of Excluded Studies

**Appendixes and Evidence Tables are provided electronically at**  
**<http://www.ahrq.gov/clinic/tp/celectp.htm>**



# Celiac Disease

## Summary

### Introduction

Celiac disease (CD) is a disorder of small bowel malabsorption. It is characterized by mucosal inflammation, villous atrophy, and crypt hyperplasia, which occur upon exposure to gluten, and clinical and histological improvement with withdrawal of gluten from the diet.<sup>1-4</sup> CD—also referred to as celiac sprue, gluten-sensitive enteropathy, non-tropical sprue, in addition to a host of other names—is thought to result from the activation of both a cell-mediated (T-cell) and humoral (B-cell) immune response upon exposure to the gluteins (prolamins and glutenins) of wheat, barley, rye, and oats, in a genetically susceptible person.<sup>5,6</sup> Genetic susceptibility is suggested by a high concordance among monozygotic twins of close to 70 percent,<sup>7</sup> and an association with certain type II human leukocyte antigens (HLA).<sup>8,9</sup> HLA DQ2 is found in up to 95 percent of CD patients, while most of the remaining patients have HLA DQ8.<sup>8-10</sup> However, there is only a 30 percent HLA concordance among siblings, suggesting that other genetic factors are also at play.<sup>11</sup> More recent evidence suggests that the presence of auto-antibodies to a connective tissue element surrounding smooth muscle called endomysium is highly specific for CD. The target of this autoantibody is now known to be an enzyme called tissue transglutaminase (tTG). This enzyme may play a prominent role in the pathogenesis of CD by modifying gliadin, resulting in a greater proliferative response of gliadin specific T-cells, which contributes to mucosal inflammation and further B-cell activation.<sup>5,6,12,13</sup>

CD appears to represent a spectrum of clinical features and presentations. Although “classical” CD (i.e., fully developed gluten-induced villous atrophy and classical features of intestinal malabsorption) is most commonly described, it appears that most patients have atypical CD (i.e.,

fully developed gluten-induced villous atrophy found in the setting of another presentation such as iron deficiency, osteoporosis, short stature, or infertility) or silent CD (i.e., fully developed gluten-induced villous atrophy discovered in an asymptomatic patient by serologic screening or perhaps an endoscopy for another reason). Other authors describe a latent form of CD that is characterized by a previous diagnosis that responded to a gluten-free diet (GFD) and retained a normal mucosal histology upon later introduction of gluten. Latent CD can also represent patients with currently normal intestinal mucosa who will subsequently develop gluten-sensitive enteropathy.<sup>13,14</sup>

The true prevalence of CD is difficult to estimate because of the variable presentation of the disease, particularly since many patients can have little or no symptoms. With this limitation in mind, the prevalence of the disease is highest in Celtic populations where estimates of 1:300 to 1:122 have been described. The prevalence of CD in North America has been estimated to be 1:3000, but a recent American study found the prevalence among the general not-at-risk population to be 1:105, while the prevalence in at-risk groups such as first-degree relatives of CD patients was 1:22, suggesting that CD is greatly under diagnosed. CD can affect persons of many ethnic backgrounds, but appears to rarely affect persons of purely Chinese, Japanese, or Afro-Caribbean descent.<sup>13</sup>

The diagnosis of CD in adults is classically made on the basis of clinical suspicion—that is, recognizing atypical presentations such as isolated iron deficiency, combined iron and folate deficiency, and osteoporosis—compatible with a duodenal biopsy while taking a gluten-containing diet, followed by clinical and histological improvement following commencement of a GFD.<sup>2,4</sup> However, several serologic markers have become available that have altered the classic



diagnostic pathway. The sensitivity of IgA anti-gliadin antibodies (AGA) is reported to range from 70 to 85 percent, whereas the specificity ranges from 70 to 90 percent. IgA anti-endomysial (EMA) and anti-tissue transglutaminase (tTG) antibodies have sensitivities in excess of 90 percent and specificities of over 95 percent.<sup>14</sup> Significant variability seems to exist in the reported values among the different studies, and these IgA-based tests can be negative in IgA-deficient patients, accounting for about 3 percent of CD cases.

The sensitivity and specificity of the anti-EMA and anti-tTG antibodies, along with the perceived under diagnosis of CD, has led to suggestions of using these tests for population screening. Aside from the recognized influence of CD prevalence on the predictive value of a serologic test result, little consensus exists regarding the value of population screening. Furthermore, specific questions regarding clinically important outcomes resulting from screening remain unclear. In particular, little data is available on adherence to a GFD in asymptomatic CD patients detected by screening.

The major complications of CD include intestinal and extraintestinal malignancies, ulcerative jejunoileitis, and collagenous sprue. Unlike most gastrointestinal (GI) lymphomas that are typically of B-cell origin, lymphomas associated with CD appear to be most commonly of T-cell origin. Unfortunately, the prognoses for patients with CD-associated T-cell lymphomas, ulcerative jejunoileitis, and collagenous sprue, appear grim. It is widely believed that strict adherence to a GFD reduces the risk of these complications. It is suggested that by 5 years of dietary adherence the risk of lymphoma in CD patients approaches that of the general population.<sup>14</sup>

The challenge of CD remains to determine which patient populations should be screened, the best means of screening, and whether early detection of patients with CD leads to improved patient outcomes. For patient outcomes to improve as a result of screening, the degree to which “positively” screened individuals, particularly those who were asymptomatic, adhere to the stringent GFD, needs to be determined.

## Methods

We completed a series of systematic reviews on five areas of CD: (1) sensitivity and specificity of serological tests; (2) prevalence and incidence of CD; (3) CD-associated lymphoma; (4) consequences of testing for CD; and (5) interventions for the promotion and monitoring of adherence to a gluten-free diet (GFD). Staff at the National Library of Medicine performed a series of searches in support of the literature review of CD. Searches were run in the MEDLINE® (1966 to Oct 2003) and EMBASE (1974 to Dec 2003) databases for each of the five objectives and their respective sub-objectives separately. Furthermore, for the 4th and 5th objectives, PsycINFO (1840 forward), AGRICOLA (1970 forward), CAB (1972 forward), and Sociological Abstracts (1963 forward) database searches

were run in December 2003. Study selection for each objective was performed using three levels of screening with predetermined increasingly more strict criteria to ensure that all relevant articles were captured. Following a calibration exercise, two reviewers independently screened all studies using a Web-based system that allowed automatic identification of review disagreements. These disagreements were resolved by consensus. For each CD objective, a detailed and standardized data abstraction form was developed. For each objective, data abstraction was conducted by one reviewer and verified by another. The extracted data was further verified by one of the principal investigators. Quality assessments were performed using specific instruments for each of the included study types. The data obtained from this review fell into several broad categories, which correspond in large part to the individual study objectives. Data for the sensitivity and specificity of each serological marker was considered separately, and studies were further divided according to the age group of the study population. Attempts were made to identify, explain, and minimize clinical and statistical heterogeneity in the included studies. A Pearson's Chi Square with n-1 degrees of freedom, where n represents the number of included studies in an analysis, was calculated to assess statistical heterogeneity. Pooled estimates were only calculated, if clinically and statistically appropriate. In situations where pooling was not performed, a qualitative systematic review was conducted.

To produce clinically useful pooled statistics, a weighted mean of the overall sensitivity and specificity from the included studies was calculated, along with 95 percent confidence intervals (CIs). The pooled estimates for the sensitivity and specificity were compared with a summary receiver operating characteristic (ROC) curve, calculated for the same group of studies as a second check of the estimates.

## Results and Discussion

Perhaps one of the most important findings of this report is the significance of how one chooses to define CD in the era of serological testing, and how this apparently clear-cut task has profound implications on all the results presented in this report. Specifically, can CD be diagnosed solely on the basis of serology? Is some degree of villous atrophy necessary for a diagnosis of CD? These questions have important implications downstream of the diagnosis as well. For example, do CD patients without symptoms or villous atrophy have the same risk of complications as those with villous atrophy? Is serological improvement on a GFD sufficient to reduce CD complications, or Must there be documented histological improvement? What degree of histological improvement is necessary?

Out of 3,982 citations identified by the search strategy for the Celiac 1 objective, 60 studies fulfilled the level 3 inclusion criteria. Overall, the quality of the diagnostic studies assessed in the Celiac 1 objective was quite good, due largely to our stringent inclusion criteria. However, 59 percent of the

included studies reported using a selected patient population that may not be representative of a clinically relevant population. This is likely related to study design. In addition, only 11 percent of the studies reported on whether the reference test was reported without knowledge of the index test. However, we felt that this was not a major threat to the validity of the studies.

Two other factors that affect the interpretation of these results, are (1) the threshold effects for determining the positivity of a serological test and (2) the high prevalence of CD in these studies (see above). With these considerations in mind, the overall strength of the evidence is quite good.

To minimize clinical and statistical heterogeneity, the included articles of a particular antibody test were divided into groups by age of the included population (adults, children, mixed), the study design (case control, or relevant clinical population/cohort), by antibody type (IgA or IgG), and by test methodology (e.g., monkey esophagus [ME] or human umbilical cord [HUC]). Within these groups, further differences in study population, country of origin, and biopsy definitions (especially whether or not mild grades without villous atrophy were included) were assessed systematically. Studies that reported using the ESPGAN criteria for the diagnosis of CD were categorized as including patients with some degree of villous atrophy. Other potential causes of heterogeneity, such as the cut-offs used to define a positive test, were assessed. The results of the Celiac 1 objective suggest that in the era of EMA and tTG antibody testing, AGA antibody testing in both children and adults has a limited role. The sensitivity and specificity of EMA and tTG are quite high (over 95 percent for sensitivity, and close to 100 percent for specificity), as are their positive and negative predictive values; however, the reported diagnostic parameters are taken from studies in which the prevalence of CD was, for the most part, much higher than that seen in usual clinical practice. The positive predictive values reported for these tests will certainly not be as high as that reported when these tests are used to screen the general population. The bulk of the evidence on the diagnostic characteristics of these tests was derived from studies that defined CD as having at least some degree of villous atrophy.

HLA DQ2/DQ8 testing appears to be a useful adjunct in the diagnosis of CD. The test has high sensitivity (in excess of 90 to 95 percent); however, since approximately 30 percent of the general population, and an even higher proportion of “high-risk” subjects (e.g., diabetics and family members) also carry these markers, the specificity of this test is not ideal. The greatest diagnostic utility of this test appears to be its negative predictive value.

Biopsy itself, when used with a strict cut-off requiring villous atrophy, appears to have high specificity, but poor sensitivity. Using a lower grade cut-off clearly improves sensitivity, but because of the wide differential of causes of histological lesions similar to Marsh I to IIIa, the specificity suffers. The use of

histomorphometric measures such as quantification of gamma delta positive intraepithelial lymphocytes (gd+ IELs) are likely to allow for the use of lower grade cut-offs, while maintaining reasonable specificity. Ultimately, a trial utilizing multiple diagnostic tests in an attempt to capture as many CD patients in a clinically relevant population as possible, along with a time dimension such as a response to a GFD or gluten challenge, is required to fully assess the diagnostic characteristics of biopsy alone. This type of study would be able to characterize the false-positive and false-negative rates, provided that all studied patients are followed forward in time.

The literature search yielded 2,116 references to address the Celiac 2 objective. Studies were included if they reported the prevalence and/or incidence of CD in the following groups: (1) general populations from North America or Western Europe; (2) first-degree relatives of patients with CD; (3) patients with type 1 diabetes; (4) patients being investigated for anemia; (5) patients with osteoporosis or osteopenia; and (6) patients with suspected CD on the basis of their clinical presentations. We did not use any geographic restriction for the studies of populations at risk (first-degree relatives and type 1 diabetics) or of associated clinical presentations (suspected CD, anemia, or metabolic bone disease). Studies of prevalence or incidence that used AGA tests conducted prior to 1990 were excluded after discussion with AHRQ because of potential problems with the reliability of older AGA assays. One hundred and nineteen studies were included.

The overall quality of reports of the included studies in the Celiac 2 objective was found to be marginal to fair. For example, most of the studies did not report on whether the patients were consecutively enrolled, a factor that could contribute to selection bias. However, setting aside the quality of individual studies, from a policy perspective, the strength of the evidence is fairly good in that the study populations were selected to reflect that of a North American/Western European descent, that should reflect the demographics of the U.S. population.

The crude incidence of CD in adults varied from lows of 1.27 in Denmark<sup>15</sup> and 3.08 in England,<sup>16</sup> to a high of 17.2 cases per 100,000 patient years in Finland,<sup>17</sup> where specific efforts had been undertaken to encourage screening for CD (see Table 34). The crude incidence of CD in children age 0 to 15 years varied from 2.15 to 51 cases per 100,000 patient years.<sup>18-20,21,16,22</sup> When reported, the relative risk (RR) of CD was greatest for the 0- to 2-year age group, as well as for women, and varied from 32.26 to 42.4<sup>18,19,22</sup> and from 1.9 to 3.34,<sup>23,18,20</sup> respectively. The cumulative incidence at age 5, when reported, varied between 0.089 and 9 cases per 1,000 live births.<sup>23,24,25,26</sup>

The included prevalence studies demonstrated important differences between the studies including execution, tests for prevalence assessment, and patient sampling. Thus, results have to be interpreted in light of some of the limitations that have been identified regarding the diagnostic performance of the tests for CD. Nonetheless, the results of this report suggest that

CD is a very common disorder with a prevalence in the general population that is likely close to 1:100 (1 percent). Several high-risk groups with a prevalence of CD greater than that of the general population have been identified and include: (1) those suspected of having CD; (2) family members of CD patients; (3) type I diabetics; and (4) those with iron-deficiency anemia (IDA) or low bone mineral density (BMD).

Additionally, the review identified many other high-risk groups, including those with Down Syndrome, short stature, and infertility, to name a few. Their inclusion was, however, beyond the scope of this report.

Out of 379 references resulting from the literature search on CD and lymphoma, our third objective, eight cohort studies and one case-control study were selected for data extraction. The studies included in the Celiac 3 objective were found, overall, to be of good quality. Again, the overall strength of the evidence is due largely to the stringent inclusion criteria, such as the requirement for the reporting of standardized rates for the outcomes based on rates from the local general population, and the overall good quality of the included studies.

Out of 1,199 citations that were identified by the search strategy for the Celiac 4 objective, 35 articles satisfied the screening criteria. The majority of studies included in this objective were single group “before–after” studies, although some also had a comparative healthy control group. We could not identify any quality instruments for this type of study design and, in general, this type of study is considered weak, particularly in the absence of a control group. Overall, however, the strength of the evidence for this objective is fair to good and suggests that the results can be used for policy decisions with the understanding that this area of CD research is still relatively new and requires further high-quality studies.

The results of this report confirm that, apart from a few limitations, there is a strong association between CD and GI lymphoma. The report identified standard incidence ratios (SIR) for lymphoma that ranged from 4 to 40, and standard mortality ratios (SMR) that ranged from 11 to 70. A diagnostic delay—and possibly a diagnosis of CD in adulthood as opposed to in childhood—may be associated with poorer outcomes. Fortunately, several studies suggest that adherence to a GFD reduces the risk of lymphoma in CD patients.

The consequences of testing for CD in at-risk and symptomatic patients appears to be more straightforward, since these patients appear to be more compliant with a GFD and would be expected to benefit from this intervention. The data are less clear for asymptomatic screen-identified patients, particularly those who have truly silent CD and/or don't have fully developed villous atrophy. On the one hand, the outcome of such patients has not been extensively studied; on the other hand, compliance with a GFD appears problematic, particularly for those diagnosed in adulthood.

Out of 502 citations identified by the search strategy for the Celiac 5 objective, 20 studies met level 3 inclusion criteria. The majority of studies in this objective were also of a “before–after”

design. However, in this setting, this design may not pose a major limitation, since the purpose of the study is to assess the change in serology and histology after introduction of a GFD. In this regard, the strength of the evidence for monitoring adherence to a GFD is fairly good. However, there is almost a complete absence of studies of interventions for the promotion of adherence to a GFD.

No specific interventions have been identified that promote adherence to a GFD, but education of patients and family members about CD and about the intricacies of a GFD, and participation in local celiac societies, has been shown to improve compliance. Although somewhat controversial, biopsy monitoring of adherence to a GFD appears to be important, since improvement in histological grade has been associated with improved BMD, IDA, and nutritional status. The serological markers appear to be adequate for detecting gross dietary indiscretion and respond to a gluten challenge, but appear to have poor sensitivity for detecting lesser degrees of dietary indiscretion and inadequately correlate with histological improvement, at least in the short-term. Children, on the other hand, show more rapid and complete histological improvement on a GFD. Therefore, monitoring adherence using serology is reasonable in this age group. It should, however, be noted, that we could not identify a controlled study that objectively determined the level of histological improvement that would be associated with improved outcomes; this is an area for future study. Nonetheless, based on this report it would appear that followup biopsy at least 1 year after a GFD in adults to document improvement of the histological grade would be valuable.

This review has allowed us to identify several areas in need of future research. Perhaps the most important of these is a need for the development of a consensus on the definition of CD in the era of advanced serological testing. As discussed in the report, this distinction of what one calls CD has profound implications for each of the requested task order objectives. Do screen-positive patients without villous atrophy have CD? Certainly, the preliminary evidence suggests that this is the situation in many cases. However, what is required is a new definition of a gold standard for the diagnosis of CD. This new gold standard may include a combination of serology, biopsy, and HLA testing. Such a gold standard, when used in studies with a time dimension (e.g., response to a GFD or gluten challenge; extended followup), would help answer some of the uncertainties identified in this report including: the real performance of the serological tests when low-grade lesions are considered CD; the diagnostic performance of biopsy alone; the outcomes of patients with these low-grade lesions; and those that would be “missed” using current screening strategies. Even in the absence of a new gold standard, we could not identify a well-conducted study of the diagnostic performance of the various serological markers when applied to an average population (i.e., one with a prevalence of CD in keeping with the range identified for average risk), with the entire cohort

being investigated equally (i.e., all are biopsied). Such a study would at least be able to shed light on the performance of these tests in average-risk patients, and since all patients are biopsied, the relationship of histology to serology could be further assessed.

On a similar theme, we have identified multiple studies that suggest the importance of histological improvement on a GFD. This is a controversial area because in common clinical practice clinicians are moving away from routine followup biopsy. It seems reasonable to believe that improvement in clinical parameters with loss of serological markers is adequate evidence of response to a GFD. In children, this issue may be less important since histological improvement is much more rapid and complete than in adults, and correlation with serology seems better. However, we have identified multiple studies in adults that suggest poor correlation between serology and improvement of histology on a GFD, and other studies that suggest that serology is useful for detecting gross dietary indiscretion, but not minor occurrences. Therefore, the questions that arise are What constitutes adequate improvement on a GFD?, and What are the criteria to define this improvement? Based on the lymphoma literature that suggests that this malignancy may arise from chronic antigenic stimulation and immune activation, what are the outcomes of adults with clinical improvement, yet persistent histological abnormalities? Are some histological features, such as reduction of mucosal lymphocytes, more important markers of improvement and possibly prognosis than other features such as villous height?

## Availability of the Full Report

The full evidence report from which this summary was taken was prepared for the Agency for Healthcare Research and Quality (AHRQ) by the University of Ottawa Evidence-based Practice Center, under Contract No. 290-02-0021. It is expected to be available in July 2004. At that time, printed copies may be obtained free of charge from the AHRQ Publications Clearinghouse by calling 800-358-9295. Requesters should ask for Evidence Report/Technology Assessment No. 104, *Celiac Disease*. In addition, Internet users will be able to access the report and this summary online through AHRQ's Web site at [www.ahrq.gov](http://www.ahrq.gov).

## Suggested Citation

Rostom A, Dubé C, Cranney A, Saloojee N, Sy R, Garritty C, Sampson M, Zhang L, Yazdi F, Mamaladze V, Pan I, McNeil J, Moher D, Mack D, Patel D. Celiac Disease. Summary, Evidence Report/Technology Assessment No. 104. (Prepared by the University of Ottawa Evidence-based Practice Center, under Contract No. 290-02-0021.) AHRQ Publication No. 04-E029-1. Rockville, MD: Agency for Healthcare Research and Quality. June 2004.

## References

1. Marsh MN. Gluten, major histocompatibility complex, and the small intestine: A molecular and immunobiologic approach to the spectrum of gluten sensitivity ('celiac sprue'). *Gastroenterology* 1992;102(1):330-54.
2. McNeish AS, Harms HK, Rey J, Shmerling DH, Visakorpi JK, Walker-Smith JA. The diagnosis of coeliac disease. A commentary on the current practices of members of the European Society for Paediatric Gastroenterology and Nutrition (ESPGAN). *Archives of Disease in Childhood* 1979;54(10):783-6.
3. Oberhuber G, Granditsch G, Vogelsang H. The histopathology of coeliac disease: time for a standardized report scheme for pathologists. *European Journal of Gastroenterology & Hepatology* 1999;11(10):1185-94.
4. Walker-Smith JA, Guandalini S, Schmitz J, Shmerling DH, Visakorpi JK. Revised criteria for diagnosis of coeliac disease. *Arch Dis Child* 1990;65(8):909-11.
5. van de WY, Kooy Y, van Veelen P, Vader W, Koning F, Pena S. Coeliac disease: it takes three to tango! *Gut* 2000;46(5):734-7.
6. Papadopoulos GK, Wijmenga C, Koning F. Interplay between genetics and the environment in the development of celiac disease: perspectives for a healthy life. *Journal of Clinical Investigation* 2001;108(9):1261-6.
7. Sollid LM, McAdam SN, Molberg O, Quarsten H, Arentz-Hansen H, Louka AS, et al. Genes and environment in celiac disease. *Acta Odontologica Scandinavica* 2001;59(3):183-6.
8. Sollid LM, Markussen G, Ek J, Gjerde H, Vartdal E, Thorsby E. Evidence for a primary association of celiac disease to a particular HLA-DQ alpha/beta heterodimer. *Journal of Experimental Medicine* 1989;169(1):345-50.
9. Ploski R, Ek J, Thorsby E, Sollid LM. On the HLA-DQ(alpha 1\*0501, beta 1\*0201)-associated susceptibility in celiac disease: a possible gene dosage effect of DQB1\*0201. *Tissue Antigens* 1993;41(4):173-7.
10. Ploski R, Ascher H, Sollid LM. HLA genotypes and the increased incidence of coeliac disease in Sweden. *Scand J Gastroenterol* 1996;31(11):1092-7.
11. Holopainen P, Mustalahti K, Uimari P, Collin P, Maki M, Partanen J. Candidate gene regions and genetic heterogeneity in gluten sensitivity. *Gut* 2001;48(5):696-701.
12. Kagnoff MF. Celiac disease pathogenesis: the plot thickens. *Gastroenterology* 2002;123(3):939-43.
13. Feldman M, Friedman LS, Sleisenger MH. *Sleisenger and Fordtran's Gastrointestinal and Liver Disease*. 7th edition W.B. Saunders; 2003.
14. Fasano A, Catassi C. Current approaches to diagnosis and treatment of celiac disease: an evolving spectrum. *Gastroenterology* 2001;120(3):636-51.
15. Bode S, Gudmand-Hoyer E. Incidence and prevalence of adult coeliac disease within a defined geographic area in Denmark. *Scand J Gastroenterol* 1996;31(7):694-9.
16. Hawkes ND, Swift GL, Smith PM, Jenkins HR. Incidence and presentation of coeliac disease in South Glamorgan. *Eur J Gastroenterol Hepatol* 2000;12(3):345-9.
17. Collin P, Reunala T, Rasmussen M, Kyronpalo S, Pehkonen E, Laippala P, et al. High incidence and prevalence of adult coeliac disease. Augmented diagnostic approach. *Scand J Gastroenterol* 1997;32(11):1129-33.
18. Ivarsson A, Persson LA, Nystrom L, Ascher H, Cavell B, Danielsson L, et al. Epidemic of coeliac disease in Swedish children. *Acta Paediatr* 2000;89(2):165-71.

19. Maki M, Holm K. Incidence and prevalence of coeliac disease in Tampere. Coeliac disease is not disappearing. *Acta Paediatrica Scandinavica* 1990;79(10):980-2.
20. Ivarsson A, Persson LA, Nystrom L, Hernell O. The Swedish coeliac disease epidemic with a prevailing twofold higher risk in girls compared to boys may reflect gender specific risk factors. *Eur J Epidemiol* 2003;18(7):677-84.
21. Maki M, Kallonen K, Lahdeaho ML, Visakorpi JK. Changing pattern of childhood coeliac disease in Finland. *Acta Paediatrica Scandinavica* 1988;77(3):408-12.
22. Lopez-Rodriguez MJ, Canal Macias ML, Lavado Garcia JM, Sanchez BM, Robledo AP, Pedrera Zamorano JD. Epidemiological changes in diagnosed coeliac disease in a population of Spanish children. *Acta Paediatr* 2003;92(2):165-9.
23. Hoffenberg EJ, MacKenzie T, Barriga KJ, Eisenbarth GS, Bao F, Haas JE, et al. A prospective study of the incidence of childhood celiac disease. *J Pediatr* 2003;143(3):308-14.
24. Weile B, Krasilnikoff PA. Extremely low incidence rates of celiac disease in the Danish population of children. *J Clin Epidemiol* 1993;46(7):661-4.
25. Corrao G, Usai P, Galatola G, Ansaldi N, Meini A, Pelli MA, et al. Estimating the incidence of coeliac disease with capture-recapture methods within four geographic areas in Italy. *J Epidemiol Community Health* 1996;50(3):299-305.
26. Magazzu G, Bottaro G, Cataldo F, Iacono G, Di Donato F, Patane R, et al. Increasing incidence of childhood celiac disease in Sicily: results of a multicenter study. *Acta Paediatr* 1994;83(10):1065-9.



www.ahrq.gov  
 AHRQ Pub. No. 04-E029-1  
 June 2004

ISSN 1530-440X

# **Evidence Report**





# Chapter 1. Introduction

## Overview

Celiac disease (CD) is a disorder of small bowel malabsorption. It is characterized by mucosal inflammation, villous atrophy and crypt hyperplasia, which occur upon exposure to gluten, and clinical and histological improvement with withdrawal of gluten from the diet.<sup>1-4</sup> CD—also referred to as celiac sprue, gluten-sensitive enteropathy, non-tropical sprue, in addition to a host of other names—is thought to result from the activation of both a cell-mediated (T-cell) and humoral (B-cell) immune response upon exposure to the glutens (prolamins and glutenins) of wheat, barley, rye, and oats, in a genetically susceptible person.<sup>5,6</sup> Genetic susceptibility is suggested by a high concordance among monozygotic twins of close to 70 percent,<sup>7</sup> and an association with certain type II human leukocyte antigens (HLA).<sup>8,9</sup> HLA DQ2 is found in up to 95 percent of CD patients, while most of the remaining patients have HLA DQ8.<sup>8-10</sup> However, there is only a 30 percent HLA concordance among siblings, suggesting that other genetic factors are also at play.<sup>11</sup> More recent evidence suggests that the presence of auto-antibodies to a connective tissue element surrounding smooth muscle called endomysium is highly specific for CD. The target of this autoantibody is now known to be an enzyme called tissue transglutaminase (tTG). This enzyme may play a prominent role in the pathogenesis of CD by modifying gliadin, resulting in a greater proliferative response of gliadin specific T-cells, which contributes to mucosal inflammation and further B-cell activation.<sup>5,6,12,13</sup>

CD appears to represent a spectrum of clinical features and presentations. Although “classical” CD (i.e., fully developed gluten-induced villous atrophy and classical features of intestinal malabsorption) is most commonly described, it appears that most patients have atypical CD (i.e., fully developed gluten-induced villous atrophy found in the setting of another presentation such as iron deficiency, osteoporosis, short stature, or infertility) or silent CD (i.e., fully developed gluten-induced villous atrophy discovered in an asymptomatic patient by serologic screening or perhaps an endoscopy for another reason). Other authors describe a latent form of CD that is characterized by a previous diagnosis that responded to a gluten-free diet (GFD) and retained a normal mucosal histology upon later introduction of gluten. Latent CD can also represent patients with currently normal intestinal mucosa who will subsequently develop gluten-sensitive enteropathy.<sup>13,14</sup>

The true prevalence of CD is difficult to estimate because of the variable presentation of the disease, particularly since many patients can have little or no symptoms. With this limitation in mind, the prevalence of the disease is highest in Celtic populations where estimates of 1:300 to 1:122 have been described. The prevalence of CD in North America has been estimated to be 1:3000, but a recent American study found the prevalence among the general not-at-risk population to be 1:105, while the prevalence in at-risk groups such as first-degree relatives of CD patients was 1:22, suggesting that CD is greatly under-diagnosed. CD can affect persons of many ethnic backgrounds, but appears to rarely affect persons of purely Chinese, Japanese, or Afro-Caribbean descent.<sup>13</sup>

**Note:** Appendixes and Evidence Tables are provided electronically at <http://www.ahrq.gov/clinic/tp/celectp.htm>

The diagnosis of CD in adults is classically made on the basis of clinical suspicion—that is, recognizing atypical presentations such as isolated iron deficiency, combined iron and folate deficiency, and osteoporosis—compatible with a duodenal biopsy while taking a gluten-containing diet, followed by clinical and histological improvement following commencement of a GFD.<sup>2,4</sup> However, several serologic markers have become available which have altered the classic diagnostic pathway. The sensitivity of IgA anti-gliadin antibodies (AGA) is reported to range from 70 to 85 percent, whereas the specificity ranges from 70 to 90 percent. IgA anti-endomysial (EMA) and anti-tissue transglutaminase (tTG) antibodies have sensitivities in excess of 90 percent and specificities of over 95 percent.<sup>14</sup> Significant variability seems to exist in the reported values among the different studies, and these IgA-based tests can be negative in IgA-deficient patients, accounting for about 3 percent of CD cases.

The sensitivity and specificity of the anti-EMA and anti-tTG antibodies, along with the perceived under diagnosis of CD, has led to suggestions of using these tests for population screening. Aside from the recognized influence of CD prevalence on the predictive value of a serologic test result, little consensus exists regarding the value of population screening. Furthermore, specific questions regarding clinically important outcomes resulting from screening remain unclear. In particular, little data is available on adherence to a GFD in asymptomatic CD patients detected by screening.

The major complications of CD include intestinal and extraintestinal malignancies, ulcerative jejunoileitis, and collagenous sprue. Unlike most gastrointestinal (GI) lymphomas that are typically of B-cell origin, lymphomas associated with CD appear to be most commonly of T-cell origin. Unfortunately, the prognoses for patients with CD-associated T-cell lymphomas, ulcerative jejunoileitis and collagenous sprue, appear grim. It is widely believed that strict adherence to a GFD reduces the risk of these complications. It is suggested that by 5 years of dietary adherence the risk of lymphoma in CD patients approaches that of the general population.<sup>14</sup>

The challenge of CD remains to determine which patient populations should be screened, the best means of screening, and whether early detection of patients with CD leads to improved patient outcomes. For patient outcomes to improve as a result of screening, the degree to which “positively” screened individuals, particularly those who were asymptomatic, adhere to the stringent GFD, needs to be determined.

## **Definition of CD**

As briefly described in the Overview, CD can take on a variety of forms. Paramount to the conduct of this review and subsequent interpretation of the literature is the identification of clear definitions of the many faces of CD. Implicit to a definition of CD (with a few exceptions that are detailed below) is the concept that the clinical and the small intestinal pathological features are present in patients who consume a gluten-containing diet, normalize with the introduction of a GFD, and recur with the re-introduction of dietary gluten.<sup>2,4</sup> The historical tendency to rely on biopsy features as part of the definition of CD, creates difficulties (as discussed below) in accurately addressing the sensitivity and specificity of biopsy for the diagnosis of CD, and in assessing the sensitivity and specificity of the serologic

markers, if different studies use different criteria to define CD. For the purpose of this review, the following definitions have been used.

## General Definitions

- 1) **Classical CD.** The most commonly described form. It describes patients with the classical features of intestinal malabsorption who have fully developed gluten-induced villous atrophy and the other classic histological features. These patients present because of GI symptoms, and are identified as CD sufferers through the investigation of these symptoms. This group can also be said to have symptomatic CD.
- 2) **Atypical CD.** Appears to be one of the most common forms. These patients generally have little to no GI symptoms, but seek medical attention because of another reason such as iron deficiency, osteoporosis, short stature, or infertility. These patients generally have fully developed gluten-induced villous atrophy. Because these patients are “asymptomatic” from the GI perspective, if their atypical CD feature is not recognized, they may be difficult or impossible to distinguish from “true” silent (asymptomatic) CD patients.
- 3) **Silent CD.** A very common form of CD. Refers to patients who are asymptomatic but are discovered to have fully developed gluten-induced villous atrophy after having undergone serologic screening or perhaps an endoscopy and biopsy for another reason. These patients are clinically silent, in that they do not manifest any clear GI symptoms or associated atypical features of CD such as iron deficiency or osteoporosis. These patients can be confused with atypical CD if their atypical features are not recognized in an early stage. As well, Fasano et al.<sup>15</sup> have shown that many of these patients do not manifest fully developed villous atrophy.
- 4) **Latent CD.** Represents patients with a previous diagnosis of CD that responded to a GFD and who retain a normal mucosal histology upon later re-introduction of gluten. Latent CD can also represent patients with currently normal intestinal mucosa who will subsequently develop gluten-sensitive enteropathy.
- 5) **Refractory CD.** For the purpose of this review, patients with refractory CD are patients with true CD and villous atrophy (i.e., not a misdiagnosis) who do not, or no longer, respond to a GFD. Although the most common reason for failure to respond to a GFD is dietary indiscretion or unknown exposure to gluten, refractory CD also occurs in patients on a GFD who have developed a complication such as ulcerative-jejunoileitis, or enteropathy-associated lymphoma. Patients with refractory CD do not necessarily have positive serology for CD. Refractory CD was reviewed in the context of the requested objectives.

In order to utilize the above definitions, there needs to be clear and valid histological criteria for the diagnosis of CD. The histological patterns, particularly the more mild lesions, are not specific for CD and can be seen in a variety of other disorders (Table 1, Appendix A).

To help standardize the histological criteria for the diagnosis of CD, several scoring systems have been developed. The classic Marsh criteria,<sup>1</sup> and its modification by Rostami,<sup>16</sup> are presented in Table 2 (Appendix A). The revised ESPGAN criteria<sup>4</sup> use histological, serological and clinical criteria (Table 3, Appendix A).

## **Report Purpose and Target Population**

The purpose of this report is to systematically review the available CD literature in order to provide organized evidence relating to a number of objectives put forth by the AHRQ. The findings of the report are intended to assist an assembled group of American and world experts in the field of CD in the development of a National Institute of Health (NIH) Consensus Development Conference Guidelines sponsored by AHRQ and OMAR.

## **Methodological Considerations**

At first glance, the determination of the sensitivity and specificity of the various diagnostic modalities for CD seems straightforward. There are a multitude of studies that have assessed the diagnostic characteristics of each of the serological markers using a variety of different laboratory methods. However, these studies are remarkably heterogeneous on a number of levels.

For example, there appears to be notable heterogeneity in the actual definition of CD, an issue that has important consequences on all of the task order objectives. Central to the classic definition of CD is the recognition that biopsy is the gold standard for diagnosis. However, it has become clear over the years that the majority of patients with CD do not have the classically described features of intestinal malabsorption, and that a large proportion of patients do not have the classic flat mucosa (sub-total or total villous atrophy). To further aid in the diagnosis of CD, multiple authors have devised and modified histological criteria to grade the mucosal lesions of patients with CD. But still at issue is the broad differential of disorders that can cause villous atrophy, particularly the milder histological grades. To help address this issue, others have attempted to address specific features of the biopsy, such as the number of intraepithelial lymphocytes (IELs), the number of gamma delta positive ( $\gamma\delta$ +) IELs and other lymphocyte subtypes, as well as the localization of IELs towards the villous tip, just to name a few.

The serological screening studies, together with the recognition that a low-grade histological lesion can be consistent with CD, have helped bring to light the concept of a spectrum of CD and the so-called “celiac iceberg.” In brief, it is recognized that classic CD with the typical symptoms of malabsorption and a fully developed mucosal lesion represents a small proportion of patients. The majority of patients are asymptomatic and are classified as having either atypical CD, silent CD, or less commonly latent CD. Some authors question whether most, if not all cases of silent CD, are in fact atypical CD, although the associated consequence of this has not been recognized. To further complicate the issue, Fasano<sup>15</sup> has clearly characterized patients with silent CD without fully developed mucosal lesions, and found that only 34 percent of the patients had subtotal or total villous atrophy.

It should be recognized that the majority of studies assessing the diagnostic characteristics of the serological markers have defined CD by a biopsy with Marsh III or modified IIIa

lesions or greater. These studies have reported a high sensitivity and specificity for these tests, particularly for the anti-EMA and anti-tTG antibody tests. However, some studies have looked at the characteristics of these tests in lower-grade lesions, and have found that while 100 percent of patients with Marsh IIIc histology show antibodies to endomysium, only 60 percent of patients with Marsh IIIa histology have anti-EMA antibodies.<sup>17,18</sup> Furthermore, it is apparent that serological markers can be used to monitor adherence to a GFD; for example, EMA and tTG antibodies fall to normal or non-diagnostic levels on a GFD, but the correlation with improvement of villous height is not as clear-cut. Finally, with the discovery by Sollid et al.<sup>8</sup> and others, that over 95 percent of patients with CD have HLA DQ2 and most of the remainder having HLA DQ8, it became hopeful that a reliable confirmatory test based on HLA typing would be available. Unfortunately, up to 40 percent of the general population and a much higher proportion of those with autoimmune disorders such as type I diabetes also have HLA DQ2 and/or HLA DQ8. Therefore, the specificity of this test can be quite low, making its positive predictive value relatively low. It is also becoming apparent that HLA DQ2/8 may not be the true risk-genes, and researchers are actively studying other candidate genes that may be associated with DQ2/8, or in patients without DQ2/8, other genes altogether.

The preceding overview was presented to simply illustrate the complexity involved in separately assessing the sensitivity and specificity of the serological markers, HLA typing, and biopsy itself, in the diagnosis of CD. Over time, the status of the biopsy as the gold standard for the diagnosis of CD has been eroded. Yet at the same time, most of what we know about the sensitivity and specificity of serological markers and HLA typing rely on biopsy as the gold standard. Therefore, one is locked in a circular argument of how best to choose the gold standard test(s), when each has important shortcomings and is dependent on another to define its own diagnostic characteristics. The major problem in accurately evaluating the diagnostic characteristics of these tests, is the issue of identifying all possible CD patients in a general screened population to use as a benchmark. Serology would be the most convenient strategy, but appears to lose sensitivity in patients with low-grade lesions. Screening a general population with biopsy has significant practical/cost issues, as well as potential ethical problems; however, if such a study was performed along with measuring the serological and HLA status of patients, this would allow for identification of Marsh I or II lesions that would need to be characterized further. HLA DQ2/8-negative patients could likely be excluded from having CD. But those patients with Marsh I-II lesions would have to be followed, whether or not they were serology positive or HLA DQ2/8 positive, to see if CD develops; alternatively, they could be tested with a GFD and subsequently rechallenged to see whether they truly have CD. Only in this way can the true sensitivity of biopsy be determined. Using this multi-test gold standard with follow-up of equivocal cases, would also be the best way of assessing the sensitivity and specificity of serology markers and HLA DQ2/DQ8 typing.

Finally, a question which needs to be addressed is: “What are the implications of identifying a truly asymptomatic individual, for example with serological screening, who has no other obvious complications such as iron deficiency or osteoporosis, and is then found to have a Marsh I or II lesion?” This returns the circular argument back to “What is truly CD?”—a question that is beyond the scope of this review.



# Chapter 2. Methods

## Overview

The UO-EPC’s evidence report on CD is based on a systematic review of the scientific-medical literature to identify, and synthesize the results from studies addressing the key questions put forth by the AHRQ. The Celiac Review Team, together with content experts, identified specific issues integral to the review. A Technical Expert Panel (TEP) refined the research questions, as well as highlighted key variables requiring consideration in the evidence synthesis. Evidence tables presenting the key study characteristics and results were developed. Summary tables were derived from the evidence tables. The methodological quality of reports of the included studies was appraised, and individual study results were summarized. For some objectives a narrative interpretation of the literature was provided.

## Key Questions Addressed in This Report

The AHRQ task order requested answers to the questions outlined below:

### 1) Objective 1 – Sensitivity and specificity of tests for CD (Celiac 1)

- a) What is the sensitivity and specificity of the following tests for CD:
  - i) AGA;
  - ii) EMA;
  - iii) human tTG IgA antibodies;
  - iv) HLA (DQ2/DQ8);
  - v) duodenal/jejunal biopsy (see section below on celiac definition)
- b) Do sensitivity and specificity vary in different target populations (e.g., symptomatic vs. asymptomatic; geographic populations)?

### 2) Objective 2 – Prevalence and incidence of CD (Celiac 2)

- a) What is the prevalence and incidence of symptomatic and “clinically silent” CD in:
  - i) the general population;
  - ii) high-risk populations:
    - (1) family member of patient with CD;
    - (2) type 1 diabetes mellitus;
    - (3) iron deficiency anemia (IDA);
    - (4) osteoporosis?
- b) How does prevalence and incidence in the general population vary in different geographic and racial/ethnic populations?

### 3) Objective 3 – Celiac associated lymphoma (Celiac 3)

**Note:** Appendixes and Evidence Tables are provided electronically at <http://www.ahrq.gov/clinic/tp/celectp.htm>

- a) What is the association between CD and GI lymphoma?
  - i) What is the cumulative risk of developing GI lymphoma in patients with CD?
  - ii) Does the cumulative risk vary with clinical presentation?

#### 4) Objective 4 – Expected consequences of testing for CD (Celiac 4)

- a) What are the expected consequences of testing for CD in the following populations:
  - i) patients with symptoms suggestive of CD;
  - ii) asymptomatic, at-risk populations (affected family members, patients with type 1 diabetes);
  - iii) the general population?
- b) “Consequences” include:
  - i) false-positive results;
  - ii) follow-up testing;
  - iii) invasive procedures (biopsies);
  - iv) cases diagnosed;
  - v) patients complying with treatment; and
  - vi) response to treatment.

#### 5) Objective 5 – Promoting or monitoring adherence to a GFD (Celiac 5)

- a) What interventions are effective for promoting or monitoring adherence to a GFD?

## Study Criteria Used in this Review

### Histological

From the preceding discussion in the methodological consideration section it is clear that current histological criteria using a cut-off grade to define CD have important shortcomings. We therefore adopted an open histological definition of CD when selecting a study for inclusion, as long as the authors’ explicitly stated or described the criteria used to define CD (see inclusion criteria below). *However, with the help of the TEP, we defined a “standard” histological definition of CD as a biopsy grade showing a modified Marsh IIIa or greater.* This definition was NOT used as an inclusion/exclusion criterion, but simply to frame our results and to allow for the evaluation of the effect of different histological criteria on the performance of the various CD tests.

The choice of biopsy criteria and/or histological grade “cut-off” used to define CD has important implications for the interpretation of the studies of serology, HLA, and biopsy. It is recognized that some patients with CD may have Marsh I or II lesions, and by definition patients with latent CD have Marsh 0 lesions. However, as emphasized by Marsh,<sup>1</sup> and as is discussed further below, in order to correctly interpret these early lesions, prospective follow-up studies are required, and an individual patient follow-up and documented response to gluten withdrawal would be required to firmly establish the diagnosis of CD.

The practical importance of the histological definition is evident from our preliminary review of articles that demonstrated considerable heterogeneity in the histological criteria used within the studies to define CD. Some used strict definitions, whereas, others accepted milder grade lesions. Furthermore, since the existence of latent CD and some silent CD without fully developed histology is now recognized, a study that aims to assess the sensitivity and specificity of biopsy itself in CD needs to use a design that incorporates the most sensitive and specific serologic and HLA tests available. The biopsy and serology should be performed simultaneously, with patients having discordant test results being further evaluated. Those with normal biopsy and positive serology would have to be followed over time to see if they have a latent form of CD. Conversely, patients with positive biopsies and normal serology would have to demonstrate improvement in histology on a GFD, and ideally, certification of relapse by biopsy with reintroduction of gluten. This type of study design was sought in order to address the objective of the sensitivity and specificity of biopsy.

## Populations

- 1) **Unselected general population.** The unselected general population implies a representative sample of a given population, such as a random sample of healthy blood donors or healthy school children. Some unselected populations are better than others for determining the true prevalence or incidence of CD. For example, blood donors are required to have normal hemoglobin and no iron deficiency, and therefore may underestimate the true numbers of patients with CD.
- 2) **Suspected CD.** Patients with suspected CD include patients with GI symptoms, such as diarrhea or symptomatic malabsorption, who are being investigated for the possibility of CD. These patients are typically undergoing other investigations in addition to being worked-up for CD.
- 3) **High-risk populations.** High-risk populations include populations with an expectedly higher prevalence of CD. Such populations include asymptomatic family members of patients with CD, patients with type I diabetes where identified CD would likely be silent or latent, and populations such as those with iron deficiency or osteoporosis where identified CD would be in the atypical CD classification.

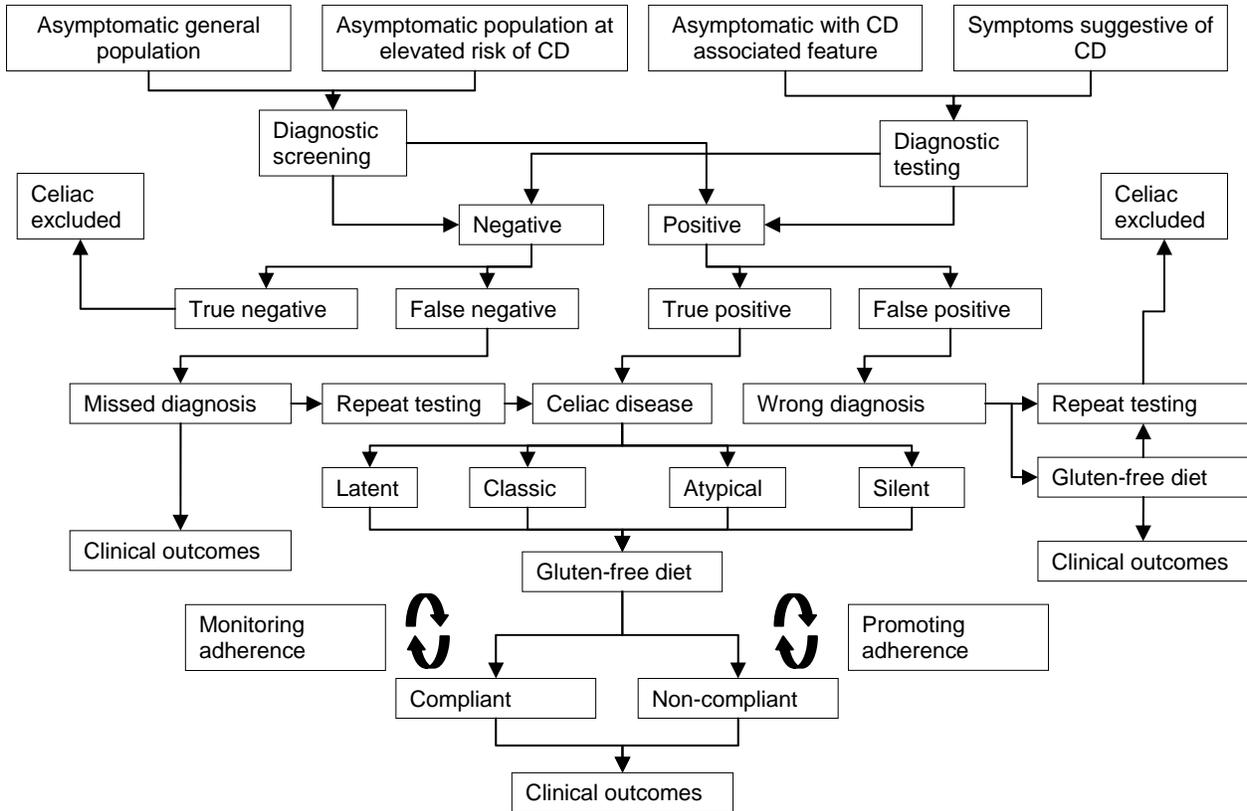
## HLA DQ2/DQ8

The HLA DQ2 haplotype represents the occurrence of HLA class II heterodimer alleles DQA1\*0501 and DQB1\*0201. These typically occur in a cis position as HLA DR3-DQ2 or in a trans position as HLA DR5/DR7-DQ2. The HLA DQ8 haplotype DQA1\*0301/DQB1\*302 typically occurs in association with DR4.

# Analytical Framework

The analytical framework is presented in Figure 1. In this framework, we wanted to represent the diagnostic pathways and the potential outcomes of testing various populations for CD. Each step of the pathway represents a portion of this systematic review, starting with the identification of the populations of interest, their diagnostic pathways, and ultimately the clinical outcomes, as well as consequences of testing.

**Figure 1: Analytic framework**



## Study Identification

Although the objectives of this task order are contained within a request for a single evidence report, we conducted five separate reviews, from the literature search onwards, as the objectives of this mandate were more orthogonal than overlapping.

### Search Strategy

A series of searches were performed by National Library of Medicine staff in support of the literature review for CD. Strategies were developed using the guidelines supplied by the UO-EPC, and were divided into the five questions posed by AHRQ. All searches were limited to human studies published in English language journal articles. The specific strategies used for each search are located in Appendix B.

1. What is the sensitivity and specificity of the following tests for CD:
  - a. EMA
  - b. human tTG IgA antibodies
  - c. AGA
  - d. HLA DQ2/DQ8
  - e. small bowel biopsy

Searches were run in the MEDLINE® and EMBASE databases for each of the five tests. With the exception of the search for small bowel biopsy, a reference to CD or its synonyms was not a requirement for retrieval in order to obtain the widest possible information on these tests. Because of their complexity, a separate search was run for each test, then the results combined into one Pro-Cite file and duplicates eliminated. Individual case reports and letters to the editor were also removed.

The MEDLINE® searches were run in October 2003 for the year 1966 forward and yielded a total of 2885 citations, with a follow-up search for HLA DQ2 and DQ8 performed in November 2003 that yielded an additional 390 citations. The EMBASE searches were run in December 2003 for the year 1974 forward and yielded a total of 1,046 citations after duplicates to MEDLINE® were removed.

2. What is the prevalence and incidence of symptomatic and clinically silent CD in the general population and in the following identified high-risk populations:
  - a. patients with an affected family member
  - b. type 1 diabetes mellitus
  - c. IDA
  - d. osteoporosis

Searches were run in the MEDLINE® and EMBASE databases. The MEDLINE® search was performed in October 2003 for the year 1966 forward and retrieved a total of 1,584 citations. The EMBASE search was run in December 2003 for the year 1974 forward and yielded 467 citations after duplicates to the MEDLINE® retrieval were removed. Individual case reports and letters to the editor were also removed from both searches.

3. What is the association between CD and GI lymphoma?

Searches were run in the MEDLINE® and EMBASE databases. The MEDLINE® search was performed in October 2003 for the year 1966 forward and retrieved a total of 230 citations. The EMBASE search was run in December 2003 for the year 1974 forward and yielded 97 citations after duplicates to the MEDLINE® retrieval were removed. Individual case reports and letters to the editor were also removed from both searches.

4. What are the expected consequences of testing for CD in the following populations:
  - a. patients with symptoms suggestive of CD
  - b. asymptomatic, at-risk populations
  - c. general population

Searches were run in the MEDLINE®, EMBASE, PsycINFO, AGRICOLA, CAB, and Sociological Abstracts databases. In order to obtain the widest possible retrieval, all articles on screening for celiac and its synonyms were included, not just those discussing consequences.

The MEDLINE® search was performed in October 2003 for the year 1966 forward and retrieved a total of 917 citations. The EMBASE (1974 forward), PsycINFO (1840 forward), AGRICOLA (1970 forward), CAB (1972 forward), and Sociological Abstracts (1963 forward) database searches were run in December 2003 and yielded a combined total of 204 citations after duplicates to the MEDLINE® retrieval were removed. Individual case reports and letters to the editor were also removed from both searches.

5. What interventions are effective for promoting or monitoring adherence to a GFD?

Searches were run in the MEDLINE®, EMBASE, PsycINFO, AGRICOLA, CAB, and Sociological Abstracts databases. Because of the small number of citations retrieved, a few selected articles discussing adherence to dietary limitations for other conditions were included. The MEDLINE® search was performed in October 2003 for the year 1966 forward and retrieved a total of 152 citations. The EMBASE (1974 forward), PsycINFO (1840 forward), AGRICOLA (1970 forward), CAB (1972 forward), and Sociological Abstracts (1963 forward) database searches were run in December 2003 and yielded a combined total of 168 citations after duplicates to the MEDLINE® retrieval were removed. Individual case reports and letters to the editor were also removed from both searches.

Some citations fulfilled the criteria of more than one celiac objective. Duplicates within each celiac objective were electronically removed. The obtained citations were uploaded into an internal web-based review system (SRS) for online collaborative citation screening and abstraction. Articles passing the first level screen were retrieved in full for further screening (see below).

Reference lists of included studies, book chapters, and narrative or systematic reviews retrieved after having passed the first level of relevance screening, were manually searched to identify additional unique references. Through contact with content experts, and the TEP, attempts were made to identify other studies not identified by the search.

## **Study Selection and Eligibility Criteria**

Study selection was performed using three levels of screening with increasingly more strict criteria to ensure that all relevant articles were captured (Table 1). Each celiac objective had its own selection criteria for each level of screening and, as discussed previously, each celiac objective was treated as a separate sub-review. Following a calibration exercise, two reviewers

independently screened all studies using the SRS web-based system. This system allows automatic identification of review disagreements. Any disagreements were resolved by the two reviewers by consensus; rarely, a third reviewer was used to break an impasse. The specific screening questions for each screen level are included in Appendix C.

**Level 1 broad screening.** Level 1 screening was used to identify any potentially relevant citation, based on review of the title, abstract and key words. For each objective, the SRS system displayed the corresponding task order questions alongside the citation details. Reviewers answered a broad question of whether the citation potentially related to the current objective. Furthermore, the SRS system was set-up in such a way that articles which were identified in one celiac objective silo, that could also be relevant to another objective, could be identified and moved/copied to the other silo. The review team was divided up so that two members could be simultaneously reviewing each objective.

**Level 2 refined screening.** Potentially relevant articles identified at level 1 were obtained in full for level 2 screening. Again, using the SRS system with the actual articles on hand, reviewers selected articles that related to each of the specific objectives. The reviewers were asked to err on the side of inclusion for this level, and to classify articles as “original” or “review”. Original articles meeting level 2 inclusion also had basic demographic data—such as screening test used, celiac definition, and study population identified—recorded into the SRS system.

**Level 3 final screening.** Level 3 screening identified articles that specifically allowed for the answering of the task order questions. These articles fulfilled the final inclusion/exclusion criteria, allowed actual extraction of the required data, and did not have fatal methodological flaws.

**Table 1: Inclusion/exclusion criteria by level of screening**

<b>Objective</b>	<b>Level</b>	<b>Inclusion</b>	<b>Exclusion</b>
Celiac 1	1	Any article reporting sensitivity/specificity of AGA, EMA, tTG, HLA DQ2/DQ8, or biopsy.	Clearly unrelated citation.
	2	For serology and HLA – articles where sensitivity and specificity could be extracted.  For biopsy – articles were included if some measure of diagnostic utility could be obtained.	
	3	Articles that allowed determination of sensitivity or specificity for all tests were included.	<ul style="list-style-type: none"> <li>• Articles with major methodological flaws excluded</li> <li>• Control group did not have gold standard test (biopsy) applied</li> <li>• No description of biopsy criteria given</li> <li>• Celiac group known to be positive for test under evaluation</li> <li>• Control group known to be negative for the test under evaluation</li> <li>• Control groups included patients with Marsh I or II biopsy lesions</li> <li>• AGA test performed without commercial ELISA kit or before 1990</li> </ul>
Celiac 2	1	Any potential citation of prevalence or incidence of CD in general and high-risk populations or association of CD with other disorders	Clearly unrelated citation.
	2	Citations limited to those that gave evidence of the prevalence or incidence of CD in the general population or the AHRQ identified high-risk populations (e.g., diabetes, relatives, iron deficiency, osteoporosis).  Countries: North America, western Europe, Australia, New Zealand.	<p>Any studies of other CD-associated disorders not identified by the task order.</p> <p>Citations of the prevalence of specific disorders in patients with celiac (i.e., reverse of the inclusion).</p> <p>Any other country.</p>
	3	Incidence and/or prevalence could be extracted from the article.	<p>Serious methodological flaws:</p> <ul style="list-style-type: none"> <li>• patients identified by surveys, through solicitation of celiac societies</li> <li>• incidence studies without a population density denominator</li> </ul>

**Table 1 (cont'd): Inclusion/exclusion criteria by level of screening**

Objective	Level	Inclusion	Exclusion
Celiac 3	1	Any potential citation of the association, prevalence or risk of lymphoma in CD, including articles on outcome of refractory sprue and ulcerative jejunoileitis.	Clearly unrelated citation.
	2	Measure of risk or prevalence/incidence of lymphoma in a population with CD.	Prevalence of CD in a population of lymphoma.  Case reports and non-comparative case series.
	3	Extractable prevalence, incidence, or cumulative risk of lymphoma in CD.	Clonality of lymphocytes in ulcerative jejunoileitis-ileitis not determined or stated (as per TEP).  Serious methodological flaw.
Celiac 4	1	Any potential citation of possible consequences of testing for CD.	Clearly unrelated citation.
	2	Consequences extractable from article.	
	3	Consequences limited to the AHRQ list.	Consequences obtainable from the other celiac objective sub-review – i.e., false positive and negative results, etc.
Celiac 5	1	Any potential citation of interventions for the monitoring or promotion of adherence.	Clearly unrelated citation.
	2	Studies of monitoring adherence were included if they assessed monitoring, by biopsy, serology (AGA publication date 1990 or later, EMA, tTG), or both.  Any promotion intervention.	Serology prior to 1990.
	3	Data from article could be extracted. Data included follow-up by biopsy alone or serology with biopsy confirmation.	Articles assessing adherence through the measures of intestinal permeability.  Studies that reported changes in mean serological titers with a GFD or gluten challenge, but did not address the potential usefulness of a serologic test to assess compliance.

Important articles answering a stated objective but not meeting inclusion criteria (i.e., containing potential threats to internal validity), were presented and discussed in the discussion section.

## Data Abstraction

For each objective, a detailed and standardized data abstraction form was developed with the assistance of content experts and the TEP panel. The data abstraction forms included baseline study characteristics as well as questions allowing for the abstraction of all relevant study results and characteristics. The electronic data extraction forms began with basic study and patient

demographic questions that were common across the five sub-review forms. These included reviewer name, author name, publication year, publication type, study design type, and basic study population demographics such as race, age, gender, and type of CD population. The extraction forms then moved to specific questions geared at extracting data to answer the respective objective's questions. The individual data abstraction forms are included in Appendix C.

**Celiac 1 (sensitivity and specificity) data abstraction form.** Separate data abstraction forms were developed for serology, HLA, and the biopsy sub-questions. Two-by-two tables were used to abstract data on sensitivity and specificity, and to determine positive and negative predictive values and the prevalence of CD in the tested population. The biopsy studies were quite heterogeneous, and did not allow for direct numeric extraction of data.

**Celiac 2 (prevalence and incidence) data abstraction form.** For this objective, the data extraction form included questions for detailing the screened study population, the number of individuals screened, the number of CD cases identified and how CD was confirmed. For incidence studies, the comparison population and time period were recorded.

**Celiac 3 (lymphoma) data abstraction form.** In addition to the basic demographic, and study design data, the extraction form contained fields for the extraction of risk data linking GI lymphoma to CD. Types of data sought were prevalence and incidence of lymphoma in CD in the setting of comparison data from a control population. Fields for extracting standardized incidence, morbidity, and mortality ratios were included.

**Celiac 4 (consequences of screening) data abstraction form.** The extraction forms for this objective included text fields to detail the consequences of testing for CD. The form contained fields that identified the specific consequence of testing which was addressed by the study, as well as a data field to report the study findings. The general field approach was chosen to allow extraction of the expected varied data for this objective.

**Celiac 5 (monitoring and promoting adherence) data abstraction form.** For this objective, standard demographic data was collected, as well as the methods used to monitor adherence to a GFD, the response of those measures to the diet, and the correlation of serological methods with biopsy findings. Space was provided to detail the sensitivity and specificity of the monitoring method when that data was available. For the objective of promoting adherence to a GFD, a text-based form was used to allow the extractor to describe the intervention and the results of its use.

**Electronic forms.** The abstraction forms were developed in Microsoft Excel to allow for electronic data entry and recording, and to allow exporting the evidence table data into Microsoft Word. For each celiac objective, data abstraction was conducted by one reviewer and verified by another. The extracted data was further verified by one of the principal investigators.

## Quality Assessment

The quality of reporting of diagnostic test studies was assessed using the QUADAS tool.<sup>19</sup> This tool is the first to be published that allows for the assessment of the quality of studies of diagnostic tests. The instrument was developed using a Delphi procedure. The Delphi panel consisted of nine experts in diagnostic research who refined an initial list of items in four rounds, after which agreement was reached on the items to be included in the tool. The QUADAS tool consists of 14 questions that are answered “yes,” “no,” or “unsure.” The tool addresses the items individually and does not incorporate an overall quality score (Appendix D).

Cohort and case-control study reports were assessed using the Newcastle-Ottawa scale (NOS; Appendix D). The NOS is an ongoing collaboration between the Universities of Newcastle, Australia and Ottawa, Canada. It was developed to assess the quality of non-randomized studies with its design, content and ease-of-use directed to the task of incorporating the quality assessments in the interpretation of meta-analytic results. A “star system” has been developed in which a study is judged on three broad perspectives: the selection of the study groups; the comparability of the groups; and the ascertainment of either the exposure or outcome of interest for case-control or cohort studies, respectively. The goal of this project is to develop an instrument that provides an easy and convenient tool for quality assessment of non-randomized studies for use in a systematic review.

The inter- and intra-rater reliability of the NOS have been established. The face content validity of the NOS has been reviewed based on a critical review of the items by several experts in the field, who evaluated its clarity and completeness for the specific task of assessing the quality of studies to be used in a meta-analysis. Furthermore, the validity of the NOS criteria has been established by comparisons to more comprehensive but cumbersome scales. An assessment plan is being formulated for evaluating its construct validity, with consideration of the theoretical relationship of the NOS to external criteria and the internal structure of the NOS components.<sup>20</sup>

Quality assessments of cross-sectional reports were assessed using a 19-item instrument adapted from Ophthalmology (Appendix D).<sup>21</sup>

We did not conduct any sensitivity analysis of quality assessments on the observational studies, as there is little by way of guidance to suggest what a poor quality study score would be based on for these assessment instruments.

One reviewer assessed the quality of an entire celiac objective to maintain internal consistency. Quality assessment was not performed under masked conditions.

## Data Synthesis and Analysis

The data obtained from this review fell into several broad categories, which correspond in large part to the individual study objectives. These will be addressed in turn.

Data for the sensitivity and specificity of each serological marker was considered separately. In addition, studies were subdivided by the population age group (adults, children, mixed population), and by study design (case control, relevant clinical population/cohort).

Attempts were made to identify, explain, and minimize clinical and statistical heterogeneity in the included studies. Heterogeneity was assessed graphically by plotting receiver operator (ROC) curves for each of the included studies in a given analysis. A Pearson’s Chi Square with

n-1 degrees of freedom, where n represents the number of included studies in an analysis was calculated to assess statistical heterogeneity.

Pooled estimates were only calculated if clinically and statistically appropriate. In situations where pooling was not performed, a narrative systematic review was conducted.

There are several potential ways to pool the results of studies of diagnostic tests, each having both advantages and disadvantages. The simplest and most intuitive is to simply perform a weighted mean of the sensitivity and specificity for the studies in question. This method provides a pooled estimate that is easy to interpret by clinicians. Several other techniques involve the pooling of diagnostic odds ratios or likelihood ratios. These methods have the distinct disadvantage of difficulty in interpretation, and the inability to derive a pooled sensitivity or specificity from the resulting estimates. Lastly, one can use one of several methods to produce a summary ROC curve. The method described by Littenberg and Moses,<sup>22,23</sup> has the advantage of being able to produce a summary curve while taking into account a threshold effect. This can occur when different studies use different thresholds to define a positive test, or even from differences in labs using the same cut-off. To interpret summary ROC curves it is necessary to know the sensitivity or specificity of the test in question in the population in which it will be applied. Since neither of these values is estimable without conducting yet another diagnostic accuracy study for the given population, the clinical usefulness of using this method alone is limited.<sup>24,25</sup>

In order to produce clinically useful pooled statistics, we calculated a weighted mean of the sensitivity and specificity from those of the included study. For both sensitivity and specificity, this pooling relies on the assumption that the test statistic is the same in all of the included studies. For each pooled estimate, a 95% confidence interval (CI) was calculated using both a fixed and random effects model. The results of which were compared as a further test for heterogeneity. The pooled estimates for the sensitivity and specificity were also compared with a summary ROC curve calculated for the same group of studies as a second check of the estimates (summary ROC Curves are included in Appendix E).

The prevalence and incidence data from the Celiac 2 objective, and the CD-lymphoma data from the Celiac 3 objective, were anticipated to be quite heterogeneous considering the different, countries, age groups, and risk characteristics of the studied patients. Attempts were made to group studies of prevalence by age group, study population, and serological screening method. If the grouped studies did not show evidence of heterogeneity, pooled estimates of the prevalence were produced for that group of studies, otherwise a descriptive presentation of the data with a qualitative systematic review was conducted. Likewise, the outcome measures of the Celiac objectives 4 and 5 were presented in a qualitative systematic review, except in cases where it was possible to pool the sensitivity and specificity data as measures of monitoring of patients at various stages of recovery on a GFD.

# Chapter 3. Results

## Celiac 1: Sensitivity and Specificity of Tests for CD

### Serology

Out of 3,982 citations identified by the search strategy for the Celiac 1 objective, 907 met level 2 screening criteria. Of these, 204 diagnostic test studies of one or more of the serological markers of interest (AGA, EMA, tTG) were identified. Sixty studies fulfilled the level 3 inclusion criteria (Appendix F; Evidence Table 1, Appendix I).<sup>26-85</sup> The most common reasons for failing level 3 inclusions were AGA studies conducted before 1990, studies utilizing an improper or an unbiopsied control group, or studies that did not give any description of the biopsy criteria defining CD. Five pairs of duplicate publications were identified.<sup>27,28,45,46,58,65,73,74,84,86</sup> Out of each duplicate pair, the study with the most complete data was abstracted,<sup>27,45,46,58,74</sup> bringing the total of included unique studies to 55. The majority of these studies assessed more than one serological marker, and some studied more than one age group. Of the included articles, 20 were conducted in or included an adult population, 33 were conducted in a population of children, and eight in a mixed population of adults and children of varying proportions. The statements in this section that relate to mixed studies or studies in children and adults refer to these eight studies, and not to a sample that we pooled from different studies.

To minimize clinical and statistical heterogeneity, the included articles of a particular antibody test were divided into groups by age of the included population (adults, children, mixed), the study design (case control, or relevant clinical population/cohort), by antibody type (IgA or IgG), and by test methodology (e.g., monkey esophagus [ME] or human umbilical cord [HUC]). Within these groups, further differences in study population, country of origin, and biopsy definitions (especially whether or not mild grades without villous atrophy were included) were assessed systematically. Studies that reported using the ESPGAN criteria for the diagnosis of CD were categorized as including patients with some degree of villous atrophy. Other potential causes of heterogeneity such as the cut-offs used to define a positive test were assessed.

Two articles were identified that assessed the diagnostic value of various antibodies in children<sup>64</sup> and in mixed-age populations<sup>40</sup> with IgA deficiency. As well, one study enrolled biopsy-proven CD patients who were known to be EMA negative.<sup>66</sup> These studies were considered separately from the others. Studies of using antibodies in combination were also assessed separately.

Pooled statistical estimates (with 95% CIs) are provided for studies without clinical and statistical heterogeneity, and summary ROC curves for the studied antibodies are provided in Appendix E. Sensitivity analyses by study design did not show a significant difference except for the analysis of IgA-tTG-guinea pig (GP) in adults. Therefore, apart from studies of IgA-tTG-GP in adults, pooled estimates, when available, included data from both study designs.

**Note:** Appendixes and Evidence Tables are provided electronically at <http://www.ahrq.gov/clinic/tp/celectp.htm>

**AGA.** The diagnostic characteristics of IgA were assessed in 35 studies and the diagnostic characteristics of IgG-AGA were assessed in 30 studies. Of the 35 IgA-AGA studies, 11 were conducted in an adult population,<sup>30,33,45,50,54,61-63,71,77,80</sup> 21 in a population of children,<sup>26,27,29,31,34,36,38,42,43,50,52,56,59,60,64,67,68,83,85,87,88</sup> and five in a mixed population.<sup>27,37,40,74,75</sup>

Of the 30 IgG-AGA studies, seven were conducted in an adult population,<sup>30,33,54,62,63,71,80</sup> 19 were conducted in population of children,<sup>26,27,29,31,34,36,38,42,43,50,52,58,59,64,66,68,69,83,85</sup> and five in a mixed population.<sup>27,37,40,74,75</sup> Some studies provided data for more than one age group.

Some studies only provided summary statistics without the raw two-by-two table results,<sup>33,34,54,58,59,69</sup> however, the raw data was calculated from the presented sensitivity and specificity, and from the group sizes.

One study<sup>66</sup> was conducted in CD patients who were known to be IgA-EMA negative, and was not included in the main analysis. In this study of children, the sensitivity for IgA-AGA was 22% and the sensitivity for IgG-AGA was 33%, whereas, the specificity for IgA-AGA was 67% and the specificity for IgG-AGA was 58%; these values are considerably lower than those reported in other studies. Another two studies were conducted in patients with IgA deficiency.<sup>40,64</sup> The first demonstrated a sensitivity of 0% using IgA-AGA, but a sensitivity and specificity of 100% using IgG-AGA,<sup>40</sup> whereas the second showed a sensitivity of 0% with IgA-AGA, but a sensitivity of 100% and a specificity of 80% using IgG-AGA.

Despite clinical subdivision of the identified studies, significant heterogeneity was identified for each of the pooled AGA subgroup results (Tables 2 to 7). Heterogeneity can be visualized graphically in the ROC curves (Figures 2 to 4) and suggests that the heterogeneity is in part related to a serological test cut-off threshold effect. As well, two studies included CD patients with less than a Marsh IIIa grade;<sup>37,45</sup> these studies had lower than average sensitivities (61% and 67% for IgA-AGA) than that reported in other studies. The remaining heterogeneity likely represents a combination of the effects of different test kits, inter-lab variability, and differences in the study groups. For example, within the child population, two of the outlier studies were conducted in Turkey,<sup>26,85</sup> although apparently using standard methodology. Therefore, overall pooled estimates do not represent true summary statistics in these situations.

**IgA-AGA.** Despite the apparent heterogeneity, one can make some broad statements regarding the diagnostic value of AGA antibodies. IgA-AGA appears to offer fair to good performance in children (Table 2; Figure 2).<sup>26,27,29,31,34,36,38,42,43,50,52,58,59,64,66,68,69,83,85</sup> Ten of the 19 studies demonstrated a sensitivity of IgA-AGA of greater than 80%, and six of the studies demonstrated a sensitivity of greater than 90%. However, nine studies demonstrated sensitivities of less than 80%. The specificity was greater than 80% in 15 of the 19 studies, and greater than 90% in 11 studies. Only four studies showed a specificity of less than 80%.

Ten studies assessed IgA-AGA in adults (Table 3; Figure 3).<sup>30,33,54,62,63,71,80</sup> Five of the ten studies demonstrated sensitivities greater than 80%, and three of the studies demonstrated sensitivities of greater than 90%. However, four studies demonstrated sensitivities of less than 65%. The specificity was greater than 80% in eight studies and greater than 90% in three. Five studies had specificities between 80% and 90%, and only two studies had specificities less than 80%.

Among the studies that assessed IgA-AGA in a mixed population of adults and children,<sup>27,37,74,75</sup> two demonstrated poor sensitivities of less than 70% but with specificities between 90% and 92%, one demonstrated a sensitivity of 85% and a specificity of 85%, and the last demonstrated a sensitivity of 91% and a specificity of 98% (Table 4; Figure 4).

**Table 2: Included studies for IgA-AGA in children**

Author, year; country	Study type	Biopsy criteria	Sens	Spec	PPV	NPV	Prev
Picarelli, 2000; Italy	Case-control	ESPGAN	22.2*	66.7*	50*	36.3*	0.60*
Gaetano, 1997; Italy	Case-control	ESPGAN	92	68	85.2	80.9	0.67
Carroccio, 1993; Italy	Case-control	Biopsies confirmed at diagnosis, on GFD, and rechallenge (severity grade - not reported)	68	91.7	86.1	79.7	0.43
Hansson, 2000; Sweden	Case-control	ESPGAN	95.5	73.9	77.8	94.4	0.49
Berger, 1996; Switzerland	Case-control	ESPGAN revised with complete villous atrophy	76	67	74	59	0.55
Lerner, 1994; USA, Israel	Case-control	Criteria of Townley modified by Ingkaran	52	94	87	74	0.52
Bahia, 2001; Brazil	Relevant clinical population	Severe villous atrophy	95.5	95.6	91.3	97.9	0.31
Russo, 1999; Canada	Relevant clinical population	ESPGAN	83.3	84.5	64.5	93.8	0.25
Bode, 1993; Denmark	Relevant clinical population	ESPGAN	64	99	90	97	0.07
Poddar, 2002; India	Relevant clinical population	ESPGAN (villous atrophy and unequivocal response to GFD)	94	91.5	92	93.5	0.52
Ascher, 1996; Sweden	Relevant clinical population	ESPGAN	100	94.4	95.7	100	0.55
Lindberg, 1985; Sweden	Relevant clinical population	ESPGAN; Alexander grading	88	88			0.31
Altuntas, 1998; Turkey	Relevant clinical population	Subtotal or total villous atrophy, crypt hyperplasia, increased IEL	23	90	75	48	0.55
Artan, 1998; Turkey	Relevant clinical population	ESPGAN ;	58	51	42.4	66.7	0.38
Rich, 1990; USA	Relevant clinical population	Not recorded - state "severe" lesion	53	93	72.7	85.7	0.25
Gonczy, 1991; Australia	Relevant clinical population (184 children with suspected CD)	ESPGAN no details on biopsy findings	95	92.4	76	98.6	0.20
Wolters, 2002; Netherlands	Relevant clinical population (identified retrospectively)	Subtotal villous atrophy with crypt hyperplasia	83	86	81	81	0.51
Lindquist, 1993; Sweden	Relevant clinical population (suspected celiac)	ESPGAN; subtotal or partial villous atrophy	86.5	92.7	93.7	85	0.55
Chirido, 1999; Argentina	Relevant clinical trial	Total or subtotal villous atrophy	75	87.1	84	80	0.47
Chartrand, 1997; Canada	Relevant clinical population	ESPGAN - with flat mucosal biopsy	80	92	67	96	0.17
Meini, 1996; Italy	Relevant clinical population	Partial villous atrophy or total villous atrophy	0	100	0	91.7	0.08

\*30 IgA-EMA-negative patients suspected of CD; 9 of 18 CD patients IgA deficient

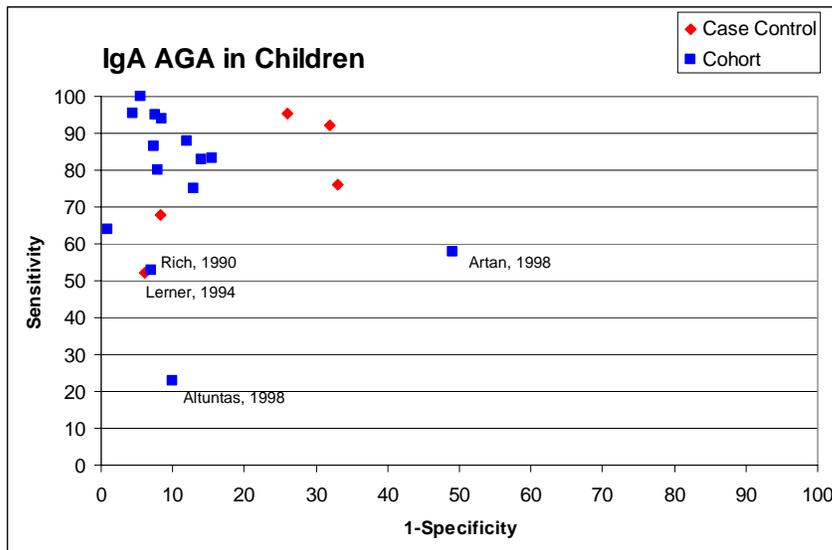
**Table 3: Included studies for IgA-AGA in adults**

Author, year; country	Study type	Biopsy criteria	Sens	Spec	PPV	NPV	Prev (%)
Sategana-Guidetti, 1995; Italy	Case-control	Roy-Choudhury criteria; partial or total villous atrophy	55	100	100	55.9	35.0
Dahele, 2001; Scotland	Case-control	Included 6 with IEL, rest partial villous atrophy or greater	61	86	88.5	42.7	43.6
Bode, 1994; Denmark	Relevant clinical population	Crypt hyperplasia, villous atrophy and increase inflammatory cells	46	98	75	92	25.7
Kaukinen, 2000; Finland	Relevant clinical population	Villous height to crypt ratio <2.0; IEL and HLA also tested	83	45	75	92	57.0
Maki, 1991; Finland	Relevant clinical population	Severe pathology with crypt hyperplasia to total villous atrophy; mild changes considered normal	30.8	87.2	22.2	91.3	14.8
McMillan, 1991; Ireland	Relevant clinical population	Revised ESPGAN	100	100	100	100	31.5
Bardella, 2001; Italy	Relevant clinical population	Marsh; no grade reported	95	89	76	98	33.3
Gonczy, 1991; Australia	Relevant clinical population (184 children with suspected CD)	ESPGAN no details on biopsy findings	92	88.2	85.2	93.8	45.8
Valdimarsson, 1996; Sweden	Relevant clinical population+ a few dypeptic controls	Alexander's classification; partial or subtotal villous atrophy	79	70	28	96	36.8
Vogelsang, 1995; Austria	Relevant study population	Modified ESPGAN; flat mucosa; crypt hyperplasia raised IELs	81.6	83	81.6	83	48.0

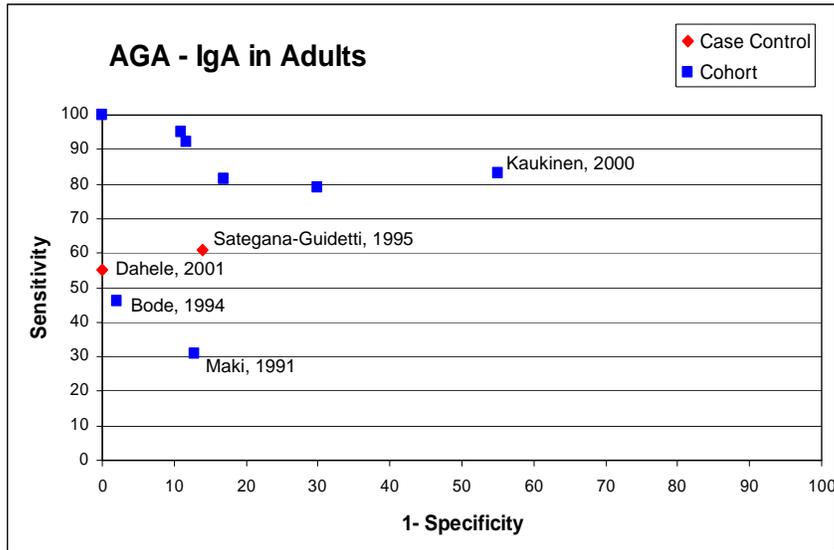
**Table 4: Included studies for IgA-AGA in studies including both children and adults**

Author, year; country	Study type	Biopsy criteria	Notes	Sens	Spec	PPV	NPV	Prev
Cataldo, 2000; Italy	Case-control	Original & revised criteria?	20 IgA-deficient CD vs healthy IgA-deficient non-CD	0	100	0	33.3	0.7
Sulkanen, 1998; Finland	Case-control	ESPGAN		84.5	81.6	75.2	89	0.4
Ascher, 1996; Sweden	Relevant clinical population	ESPGAN		90.9	98.5	98	92.7	0.5
Carroccio, 2002; Italy	Relevant clinical population	Marsh, broken down by criteria; CD was diagnosed as enlarged crypts and/or villous atrophy-with normalization on GFD		67	90	86	75	0.5
Tesei, 2003; Argentina	Relevant clinical population	Marsh II to IV - with confirmation		64	92	92	64	0.6

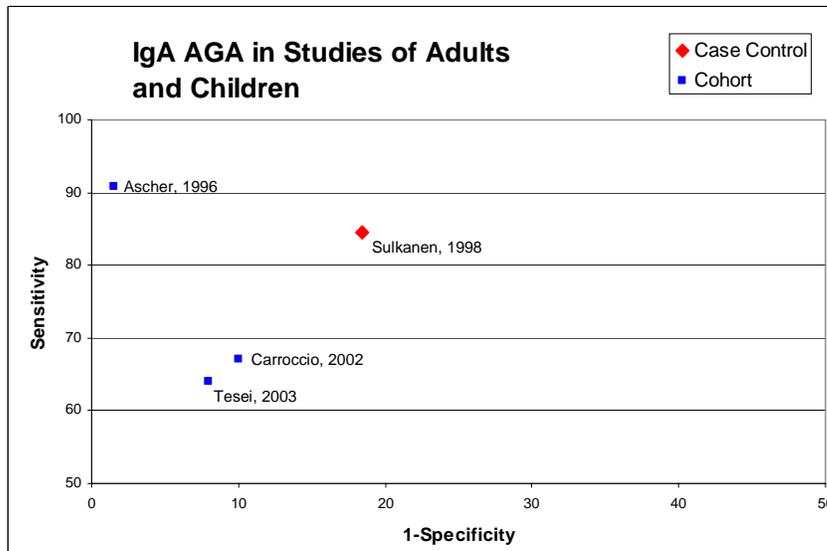
**Figure 2: IgA-AGA in children with CD**



**Figure 3: IgA-AGA in adults with CD**



**Figure 4: IgA-AGA in adults and children with CD**



**IgG-AGA.** The seven studies of IgG-AGA in adults demonstrated considerably greater heterogeneity.<sup>30,33,54,62,63,71,80</sup> The sensitivity ranged from 17% to 100%, with little study grouping. However, there was less variation in the reported specificities. Five of the seven studies demonstrated specificities greater than 80%, whereas, the remaining two studies had specificities of greater than 70%. (Table 5; Figure 5)

In contrast, among the 17 analyzed studies (non-IgA deficient) of IgG-AGA conducted in children,<sup>26,27,29,31,34,36,38,42,43,50,52,58,59,68,69,83,85</sup> there seemed to be greater variability in the specificity than in the sensitivity (Table 6; Figure 6). Fifteen of the 17 studies demonstrated sensitivities that were greater than 80%, and six demonstrated sensitivities greater than 90%. Only two studies showed a sensitivity of less than 80%. In contrast, with regards to specificity, two groupings of studies become apparent. The first group consists of 11 studies, all of which had specificities greater than 79%, and except for one study, had sensitivities that were greater than 80%. In contrast, the second group of six studies all had specificities below 70%, and with the exception of one study, had sensitivities greater than 80%. (Tables and figures)

Four studies looked at IgG-AGA in a non-IgA-deficient mixed population of adults and children.<sup>27,37,74,75</sup> Two of these demonstrated sensitivities greater than 80%, one showed a sensitivity of 84%, whereas the second had a sensitivity of 96%. However, only the first study had specificity greater than 80%. In total, three of the four studies had specificities less than 80% (Table 7; Figure 7).

**Table 5: Included studies for IgG-AGA in adults**

Author, year, country	Study type	Biopsy criteria	Sens	Spec	PPV	NPV	Prev (%)
Sategana-Guidetti, 1995; Italy	Case-control	Roy-Choudhury criteria; partial or total villous atrophy	78	80.7	87.6	67.6	56.7
Bode, 1994; Denmark	Relevant clinical population	Crypt hyperplasia, villous atrophy and increase inflammatory cells	62	97	73	94	34.8
Kaukinen, 2000; Finland	Relevant clinical population	Villous height to crypt ration <2.0; IEL and HLA also tested	17	86	14	93.5	15.1
Maki, 1991; Finland	Relevant clinical population	Severe pathology with crypt hyperplasia to total villous atrophy; mild changes considered normal	46.2	89	33.3	93.3	14.8
McMillan, 1991; Ireland	Relevant clinical population	Revised ESPGAN	57	85	64	81	28.1
Gonczi, 1991; Australia	Relevant clinical population (184 children with suspected CD)	ESPGAN no details on biopsy findings	100	69.7	69.4	100	61.0
Vogelsang, 1995; Austria	Relevant study population	Modified ESPGAN; flat mucosa; crypt hyperplasia raised IELs	73.5	73.6	72	75	49.0

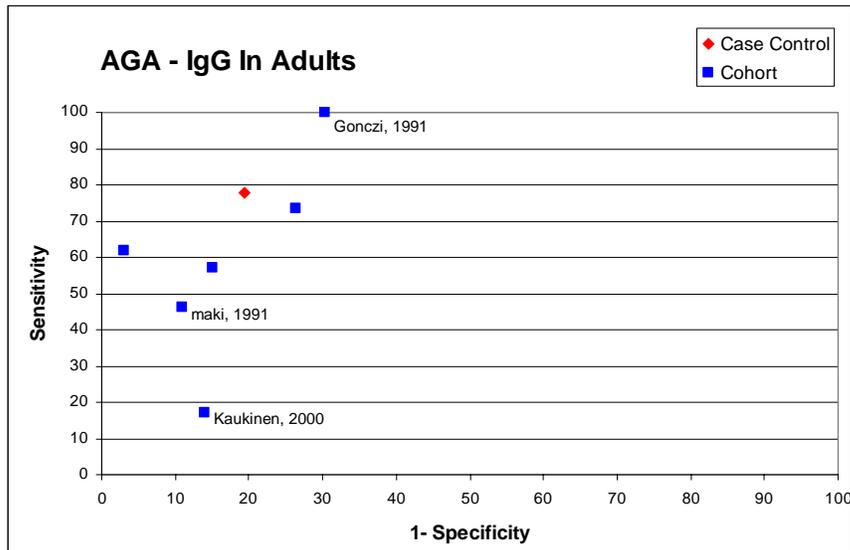
**Table 6: Included studies for IgG-AGA in children**

<b>Author, year; country</b>	<b>Study type</b>	<b>Biopsy criteria</b>	<b>Sens</b>	<b>Spec</b>	<b>PPV</b>	<b>NPV</b>	<b>Prev</b>
Picarelli, 2000; Italy	Case-control	ESPGAN	33.3	58.3	54.5	36.8	0.60
Gaetano, 1997; Italy	Case-control	ESPGAN	100	36	75.7	100	0.67
Carroccio, 1993; Italy	Case-control	Biopsies confirmed at diagnosis, on GFD, and rechallenge (severity grade – not recorded)	88.9	46.7	55.6	84.8	0.43
Hansson, 2000; Sweden	Case-control	ESPGAN	81.8	82.6	81.8	82.6	0.49
Berger, 1996; Switzerland	Case-control	ESPGAN revised with complete villous atrophy	69	59	68	53	0.55
Lerner, 1994; U.S.A, Israel	Case-control	Criteria of Townley modified by Ingkaran	88	92	88	92	0.52
Bahia, 2001; Brazil	Relevant clinical population	Severe villous atrophy	90.9	97.8	95.2	95.7	0.32
Russo, 1999; Canada	Relevant clinical population	ESPGAN	83.3	85.9	66.7	93.8	0.25
Bode, 1993; Denmark	Relevant clinical population	ESPGAN	71	99	100	98	0.07
Ascher, 1996; Sweden	Relevant clinical population	ESPGAN	100	66.7	75.6	100	0.55
Lindberg, 1985; Sweden	Relevant clinical population	ESPGAN; Alexander or Perea et al.	93	89	93.1	88.6	0.31
Altuntas, 1998; Turkey	Relevant clinical population	Subtotal or total villous atrophy, crypt hyperplasia, increased IEL	100	0	55	0	0.55
Artan, 1998; Turkey	Relevant clinical population	ESPGAN	83	59	55.6	85.2	0.38
Rich, 1990; USA	Relevant clinical population	Not reported - state "severe" lesion	100	58	44	100	0.25
Gonczy, 1991; Australia	Relevant clinical population (184 children with suspected CD)	ESPGAN no details on biopsy findings	100	92.4	76.9	100	0.20
Wolters, 2002; Netherlands	Relevant clinical population (identified retrospectively)	Subtotal villous atrophy with crypt hyperplasia	83	80	86	82	0.51
Chirido, 1999; Argentina	Relevant clinical trial	Total or subtotal villous atrophy	85.7	80.6	80	86	0.47
Chartrand, 1997; Canada	Relevant clinical population	ESPGAN - with flat mucosal biopsy	83	79	45	96	0.17
Meini, 1996; Italy	Relevant clinical population	Partial villous atrophy or total villous atrophy	100	80	31.2	100	0.08

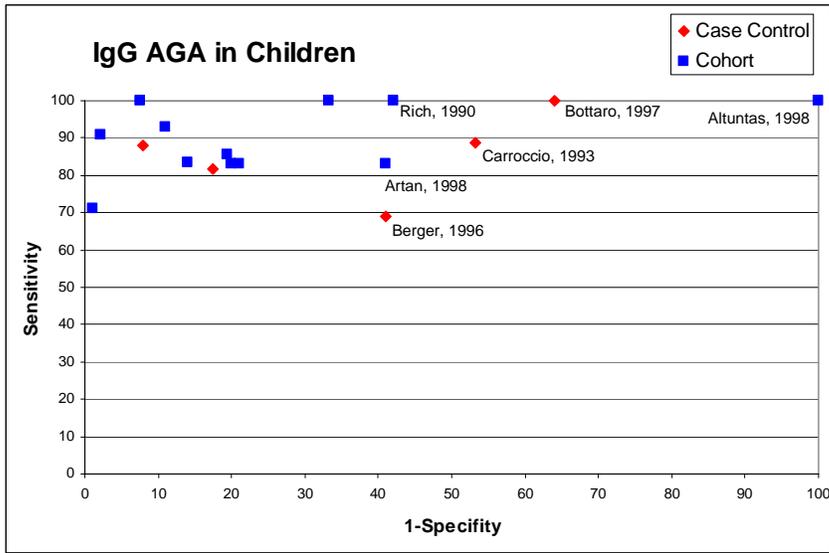
**Table 7: Included studies for IgG-AGA in studies including both children and adults**

Author, year; country	Study type	Biopsy criteria	Notes	Sens	Spec	PPV	NPV	Prev
Cataldo, 2000; Italy	Case-control	Original and revised criteria?	20 IgA-deficient CD vs healthy IgA-deficient non-CD	100	100	100	100	0.7
Sulkanen, 1998; Finland	Case-control	ESPGAN		69	73.4	63	78.3	0.4
Ascher, 1996; Sweden	Relevant clinical population	ESPGAN		96.4	69.2	72.6	95.7	0.5
Carroccio, 2002; Italy	Relevant clinical population	Marsh-broke down by criteria; CD was diagnosed as enlarged crypts and/or villous atrophy - with normalization on GFD		76	75	73.4	77.3	0.5
Tesei, 2003; Argentina	Relevant clinical population	Marsh II to IV - with confirmation		84	86	89	79	0.6

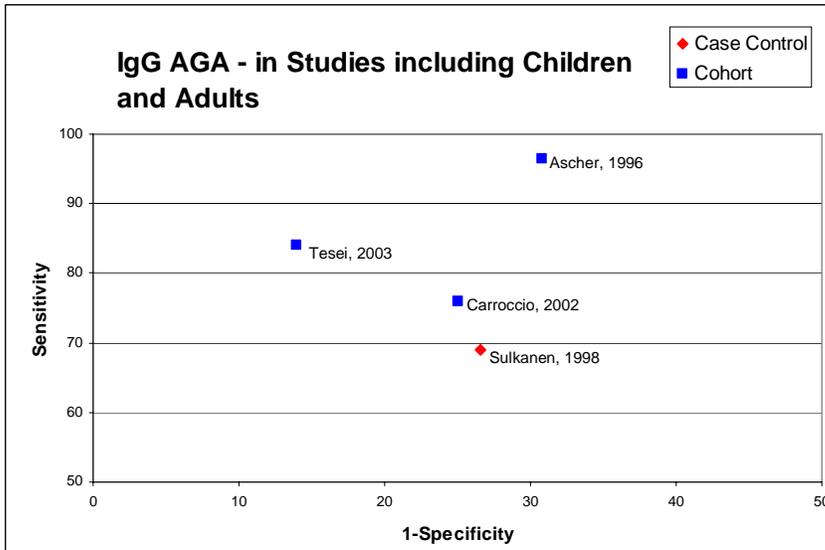
**Figure 5: IgG-AGA in adults with CD**



**Figure 6: IgG-AGA in children with CD**



**Figure 7: IgG-AGA in children and adults with CD**



## EMA

*EMA—ME.* The diagnostic characteristics of IgA-EMA-ME were assessed in 35 studies, and the diagnostic characteristics of IgG-EMA-ME were assessed in three studies. Of these included studies, 11 IgA-EMA-ME studies were conducted in adults,<sup>30,32,39,51,57,63,71,77,78,80,81</sup> 17 in children,<sup>27,35,36,38,41,44,46,51,52,55,56,58,60,69,79,82,83</sup> and five in a mixed population.<sup>27,37,40,47,75</sup> Some studies provided data for more than one age group. One study in children provided data on two different populations (including different control groups).<sup>55</sup> IgG-EMA-ME was assessed in one adult population,<sup>63</sup> one child population,<sup>66</sup> but not in any of the mixed-population studies.

One study was conducted in a population of known CD patients who had previously tested negative for EMA. In this study, the sensitivity and specificity of IgG EMA-ME were both 100%;<sup>66</sup> the performance of IgA-EMA was not reported. Another study that included CD patients with less than a Marsh IIIa grade,<sup>37</sup> demonstrated a sensitivity of 88%. Some studies only provided summary statistics without the raw two-by-two table results,<sup>46,58,69</sup> however, the raw data was abstracted based on the reported sensitivity and specificity, and the group sizes.

*IgA-EMA-ME.* Among the 11 studies of IgA-EMA-ME conducted in adults,<sup>30,32,39,51,57,63,71,77,78,80,81</sup> the specificity of the test was 100% in all except one, which showed a specificity of 97.2% (Table 8; Figure 8). The sensitivity of the test showed some slight variation among the studies. One outlier study demonstrated a sensitivity of only 74%;<sup>77</sup> however, the authors found that in the remaining five of 19 CD patients who tested negative for EMA, three were IgA deficient. If these patients were excluded, the sensitivity rose to 88%. The authors also go on to say that they seem to have a high proportion of IgA-deficient subjects in their referral base. The remaining ten studies showed sensitivities of 89% or greater. In fact, five studies showed a sensitivity of 100%, one a sensitivity of 99%, and another a sensitivity of 97%. In all, eight out of the 11 showed a sensitivity of 95% or greater, matching the very high specificity of this test. There was no statistical heterogeneity for this analysis. The pooled estimates for the sensitivity and specificity along with their 95% CI values were 97% (95% CI: 95.7-98.5) and 99.6% (95% CI: 98.8-99.9), respectively.

Among the 18 studies that assessed IgA-EMA-ME in children,<sup>27,35,36,38,41,44,46,51,52,55,56,58,60,69,79,82,83</sup> all but one outlier<sup>69</sup> were grouped together, and the sensitivities and specificities were both greater than 89% (Table 9; Figure 9). The outlier study demonstrated a sensitivity of only 74%, and also demonstrated low sensitivity for IgA-EMA-HU (see below).<sup>69</sup> The authors comment on the difficulties of interpreting immunofluorescence data as a likely explanation. Ten studies showed sensitivities greater than 95%, and except for one study with a sensitivity of 89%, the remaining seven studies had sensitivities between 90% and 95%. All these studies demonstrated specificities of 89% or greater, 16 had specificities greater than 90%, and 14 had specificities greater than 96%. There was no evidence of statistical heterogeneity in this analysis. The pooled sensitivity and specificity was 96.1% (95% CI: 94.4-97.3) and 97.4% (95% CI: 96.3-98.2), respectively.

Among the four studies in a mixed-age population that assessed IgA-EMA-ME,<sup>27,37,47,75</sup> all showed specificities of greater than 98% (Table 10; Figure 10). However, these studies showed some variation in the reported sensitivities. One study reported a very low sensitivity of 75%.<sup>47</sup> Two other studies showed a sensitivity of 86% and 88%, respectively, whereas the last showed a sensitivity of 98%.

**Table 8: Included studies for IgA-EMA-ME in adults**

<b>Author, year; country</b>	<b>Study type</b>	<b>Biopsy criteria</b>	<b>Sens</b>	<b>Spec</b>	<b>PPV</b>	<b>NPV</b>	<b>Prev (%)</b>
Hallstrom, 1989; Finland	Case-control	Flat mucosa	90.6	100	100	88.9	51.8
Biagi, 2001; Italy	Case-control	Partial villous atrophy or greater	94.6	100	100	94.5	49.1
Ladinsler, 1994; Italy	Case-control	Revised ESPGAN	100	100.0	100	100	21.1
Sategana-Guidetti, 1995; Italy	Case-control	Roy-Choudhury criteria; partial or total villous atrophy	100	100	100	100	63.7
Valentini, 1994; Italy	Case-control	Partial villous atrophy or greater	99	100	100	96.7	76.2
Volta, 1995; Italy	Case-control	Roy-Choudhury criteria	95	100	100	97.1	35.6
Carroccio, 2002; Italy	Relevant clinical population	Ferguson and Murray; partial or total villous atrophy	100	100	100	100	11.6
McMillan, 1991; Ireland	Relevant clinical population	Revised ESPGAN	89.2	100	100	95.3	28.1
Bardella, 2001; Italy	Relevant clinical population	Marsh	100	97.2	93	100	28.7
Valdimarsson, 1996; Sweden	Relevant clinical population+ a few dypeptic controls	Alexander's classification; partial or subtotal villous atrophy	74	100	100	96	9.7
Vogelsang, 1995; Austria	Relevant study population	Modified ESPGAN; flat mucosa; crypt hyperplasia raised IELs	100	100	100	100	48.0

**Table 9: Included studies for IgA-EMA-ME in children**

<b>Author, year; country</b>	<b>Study type</b>	<b>Biopsy criteria</b>	<b>Sens</b>	<b>Spec</b>	<b>PPV</b>	<b>NPV</b>	<b>Prev</b>
Chirido, 2000; Argentina	Case-control	ESPGAN	92.4	100	100	85.2	0.7
Kolho, 1997; Finland	Case-control	Revised ESPGAN	95	100	100	97	0.3
Kolho, 1997; Finland	Case-control	Revised ESPGAN	100	100	100	100	0.5
Whelan, 1996; Ireland	Case-control	Subtotal villous atrophy	100	100	100	100	0.4
Bonamico, 2001; Italy	Case-control	ESPGAN	95.1	98.2	90	44.3	0.5
Gaetano, 1997; Italy	Case-control	ESPGAN	96	96	97.9	92.3	0.7
Carroccio, 1993; Italy	Case-control	Biopsies confirmed at diagnosis, on GFD, and rechallenge (severity grade - not reported)	100	96.7	95.7	100	0.4
Di Leo, 2003; Italy	Case-control	ESPGAN	100	96.5	93.5	100	0.4
Vitoria, 2001; Italy	Case-control	Subtotal villous atrophy	100	100	100	100	0.6
Hansson, 2000; Sweden	Case-control	ESPGAN	95.5	100	100	95.8	0.5
Lerner, 1994; USA, Israel	Case-control	Criteria of Townley modified by Ingkaran	97	98	97	98	0.5
Hallstrom, 1989; Finland	Case-control	Flat mucosa	100	100	100	100	0.4
Chan, 2001; Canada	Relevant clinical population	Villous atrophy, crypt hyperplasia, increased lymphocytes	89	97	80	98	0.1
Russo, 1999; Canada	Relevant clinical population	ESPGAN	75	88.7	69.2	91.3	0.3
Ascher, 1996; Sweden	Relevant clinical population	ESPGAN	95.4	100	100	94.7	0.6
Wolters, 2002; Netherlands	Relevant clinical population (identified retrospectively)	Subtotal villous atrophy with crypt hyperplasia	92	90	90.5	92	0.5
Lindquist, 1993; Sweden	Relevant clinical population (suspected CD)	ESPGAN; subtotal or partial villous atrophy	98.1	92.7	94.4	97.5	0.6
Kumar, 1989; USA, Israel	Relevant clinical population and control cases	ESPGAN + Townley	96.0	89.0	87.0	96.7	0.2

**Table 10: Included studies for IgA-EMA-ME in studies including both children and adults**

Author, year; country	Study type	Biopsy criteria	Notes	Sens	Spec	PPV	NPV	Prev
Cataldo, 2000; Italy	Case-control	Original & revised criteria?	20 IgA-deficient CD vs healthy IgA-deficient non-CD	0	100	0	33.3	0.7
Dickey, 2001; Northern Ireland	Case-control	Villous atrophy		75.3	98.3	98.2	76	0.6
Ascher, 1996; Sweden	Relevant clinical population	ESPGAN		98.2	100	100	98.5	0.5
Carroccio 2002; Italy	Relevant clinical population	Marsh - broke down by criteria; CD was diagnosed as enlarged crypts and/or villous atrophy - with normalization on a GFD		88	99	98.7	90	0.5
Tesei, 2003; Argentina	Relevant clinical population	Marsh II to IV - with confirmation		86	100	100	83	0.6

**Figure 8: IgA-EMA-ME in adults with CD**

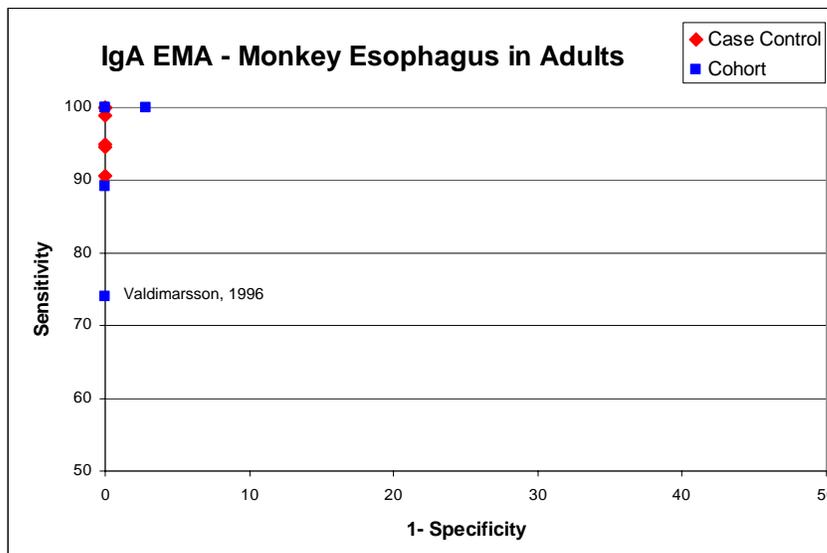


Figure 9: IgA-EMA-ME in children with CD

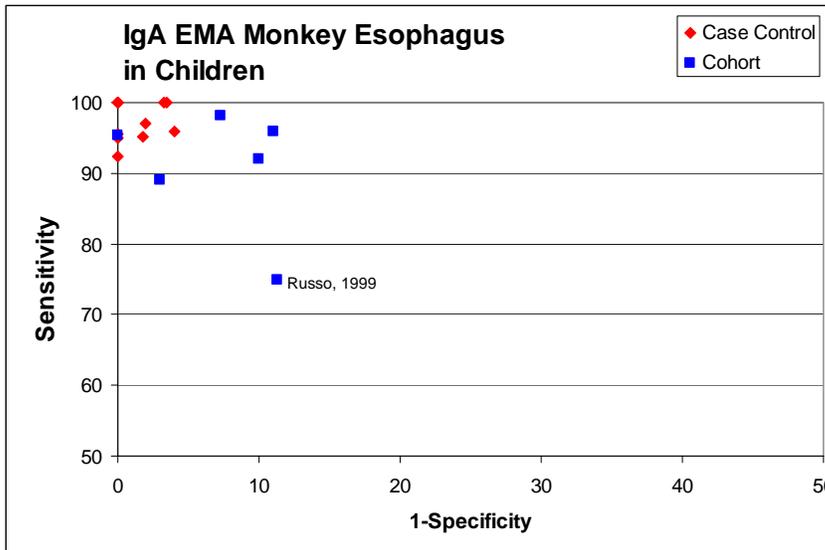
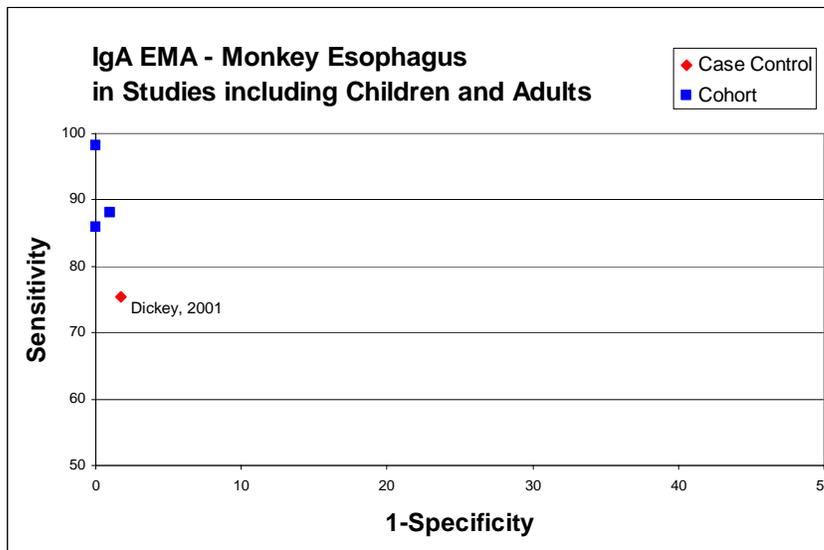


Figure 10: IgA-EMA-ME in adults and children with CD



*IgG-EMA-ME.* Only two studies meeting our inclusion criteria assessed IgG-EMA-ME, one in adults (Table 11),<sup>63</sup> and one in children (Table 12).<sup>66</sup> In the single adult study,<sup>63</sup> the sensitivity of the test was found to be 39%, whereas, the specificity was 98%. In a case-control study design, Picarelli et al. studied 30 IgA-EMA-negative children suspected of having CD.<sup>66</sup> Of these 30 children, 18 were subsequently found to have CD by duodenal biopsy and nine of the 18 were

found to be IgA deficient. In this highly selected population, the reported sensitivity and specificity of IgG-EMA-ME were both 100%.

**Table 11: Included studies for IgG-EMA-ME in adults**

Author, year; country	Study type	Biopsy criteria	Sens	Spec	PPV	NPV	Prev (%)
McMillan, 1991; Ireland	Relevant clinical population	Revised ESPGAN	39	98.3	92	78	13.5

**Table 12: Included studies for IgG-EMA-ME in children**

Author, year; country	Study type	Biopsy criteria	Notes	Sens	Spec	PPV	NPV	Prev
Picarelli, 2000; Italy	Case-control	ESPGAN	30 IgA-EMA neg. pts suspected of CD; 9/18 CD patients IgA deficient	100	100	100	100	0.1

*EMA—HU.* IgA-EMA-HU was assessed in 13 studies. Six of these studies were conducted in adults,<sup>45,49,54,57,61,70,89</sup> five in children,<sup>36,53,55,69,70</sup> and two in a mixed population.<sup>72,74</sup> One study provided summary statistics without the raw two-by-two table results,<sup>69</sup> however the raw data was calculated from the reported sensitivity and specificity and the group numbers. One study provided data on two different populations (including different control groups).<sup>55</sup>

IgG-EMA-HU was not assessed in any of the studies meeting our inclusion criteria.

Two studies included CD patients (both adult and children) with less than a Marsh IIIa grade, and reported IgA-EMA-HU sensitivities of 87% and 100%.<sup>45</sup>

*IgA-EMA-HU.* Six studies in adults assessed IgA-EMA-HU (Table 13; Figure 11).<sup>45,49,54,57,61,70,89</sup> In all six, the specificity was reported to be 100%. There was, however, variability in the reported sensitivities, which ranged from 87% to 100%. Three studies demonstrated sensitivities between 87% and 89%, two between 90% and 95% and one showing a sensitivity of 100%. There was no observed statistical heterogeneity for this analysis. The pooled sensitivity and specificity was found to be 90.2% (95% CI: 85.9-93.4) and 100% (95% CI: 99.1-100), respectively.

Five studies with six separate child populations assessed IgA-EMA-HU (Table 14; Figure 12).<sup>36,53,55,69,70</sup> Four of the six studies were grouped together and revealed sensitivities between 94% and 100%, and specificities of 100%. Of the two outliers,<sup>90</sup> one showed a sensitivity of 100% and a specificity of 77%. The other study,<sup>69</sup> was an outlier in other analyses, and demonstrated a sensitivity of 46% and a specificity of 96%. The authors comment on difficulties of interpretation of the immunofluorescence as a likely explanation. After accounting for this study, there was no statistical heterogeneity documented for sensitivity. The pooled sensitivity for this analysis was 96.9% (95% CI: 93.5-98.6). A pooled specificity for this analysis was not calculated, but is likely close to 100% given that four of the five grouped studies demonstrated a specificity of 100%.

Two studies assessed IgA-EMA-HU in a mixed-age population (Table 15; Figure 13).<sup>72,74</sup> In both these studies, the specificity was 100% (95% CI: 97.5-100) and the sensitivity 93% (95% CI: 88.1-95.4).

**Table 13: Included studies for IgA-EMA-HU in adults**

Author, year; country	Study type	Biopsy criteria	Sens	Spec	PPV	NPV	Prev (%)
Gillbert, 2000; Canada	Case-control	Mild, moderate, severe villous atrophy	100	100	100	100	33.3
Ladinsler, 1994; Italy	Case-control	Revised ESPGAN	90	100	100	98	18.9
Salmaso, 2001; Italy	Case-control	Grades I-IV Marsh with response to a GFD	87	100	100	95.1	24.7
Volta, 1995; Italy	Case-control	Roy-Choudhury criteria	95	100	100	97.1	35.6
Dahele, 2001; Scotland	Case-control	Included 6 with IEL, rest partial villous atrophy or greater	87	100	100	81.3	55.3
Kaukinen, 2000; Finland	Relevant clinical population	Villous height to crypt ration <2.0; IEL and HLA also tested	88.9	100	100	98.9	7.6

**Table 14: Included studies for IgA-EMA-HU in children**

Author, year; country	Study type	Biopsy criteria	Sens	Spec	PPV	NPV	Prev
Kolho, 1997; Finland	Case-control	Revised ESPGAN	95	100	100	97	0.3
Kolho, 1997; Finland	Case-control	Revised ESPGAN	100	100	100	100	0.5
Gaetano, 1997; Italy	Case-control	ESPGAN	94	100	100	89.2	0.7
Salmaso, 2001; Italy	Case-control	Grades I-IV Marsh with response to GFD	100	100	100	100	0.6
Russo, 1999; Canada	Relevant clinical population	ESPGAN	45.8	95.8	78.6	84	0.3
Iltanen, 1999 Finland	Relevant clinical population	ESPGAN - CD confirmed at follow-up	100	77.1	60.1	100	0.3

**Table 15: Included studies for IgA-EMA-HU in studies including both children and adults**

Author, year; country	Study type	Biopsy criteria	Sens	Spec	PPV	NPV	Prev
Sblaterro, 2000; Italy	Case-control	ESPGAN	93	100	100	80	0.8
Sulkanen, 1998; Finland	Case-control	ESPGAN	92.6	99.5	99.2	94.9	0.4

**Figure 11: IgA-EMA-HU in adults with CD**

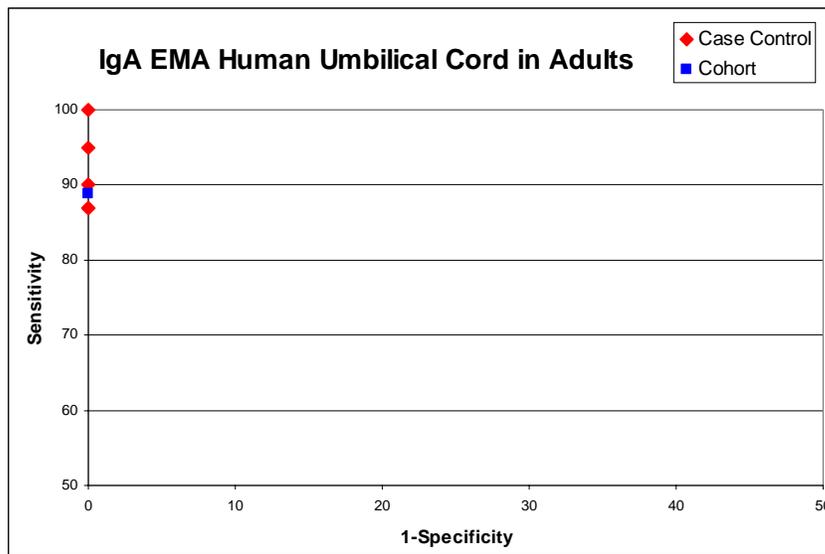


Figure 12: IgA-EMA-HU in children with CD

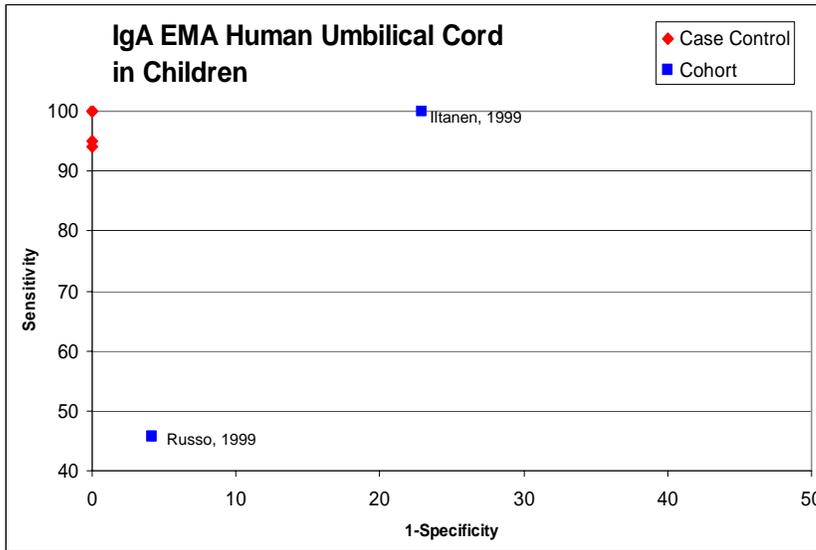
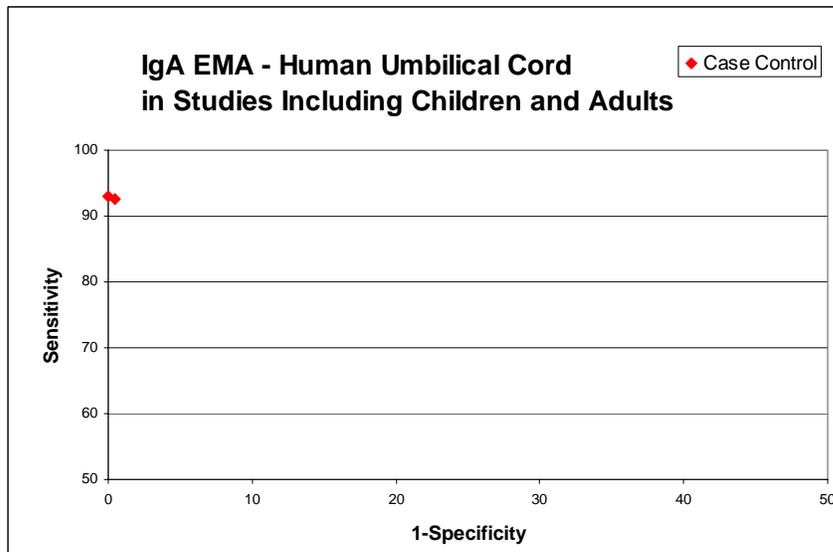


Figure 13: IgA-EMA-HU in adults and children with CD



## tTG antibodies

*tTG—GP liver.* The diagnostic characteristics of IgA-tTG-GP were assessed by ELISA in nine studies, and the diagnostic characteristics IgG-tTG-GP assessed by ELISA in three studies. Of the IgA-tTG-GP studies, five were conducted in adults,<sup>30,32,39,45,70</sup> five in children,<sup>35,41,52,70,83</sup> and four in a mixed population.<sup>47,72,74,76</sup> One study provided separate data for more than one age group.<sup>70</sup>

Of the IgG-tTG-GP studies that met the inclusion criteria, none were in adults or children, although two studies were in a mixed population.<sup>72,76</sup>

Two studies included CD patients with less than a Marsh IIIa grade.<sup>45,70</sup> These studies demonstrated sensitivities of 81% and 95% for IgA-tTG-GP.

*IgA-tTG-GP.* In the analysis of IgA-tTG-GP in adults, five studies grouped themselves by study design.<sup>30,32,39,45,70</sup> The two cohort studies (relevant clinical population)<sup>30,39</sup> both showed sensitivities of 100%, and specificities of 92% and 98%, respectively. On the other hand, the three case-control studies<sup>32,45,70</sup> demonstrated high specificities (97% to 98%), but sensitivities of only 81% to 88% (Table 16; Figure 14). This analysis did not show statistical heterogeneity, but the differences by study design were striking, so a pooled estimate for sensitivity was not performed. The pooled specificity was 95.3% (95% CI: 92.5-98.1).

The analysis of IgA-tTG-GP in children showed very little variability in either the sensitivity, or specificity (Table 17; Figure 15). Among these five studies,<sup>35,41,52,70,83</sup> the sensitivities ranged from 89% to 96%. The specificities were all greater than 92%, with three studies showing specificities greater than 96%,<sup>41,52,83</sup> and two studies having a sensitivity of 100%.<sup>35,70</sup> The pooled estimates of the sensitivity and specificity were 93.1% (95% CI: 88.8-95.9) and 96.3% (95% CI: 93.1-98.0), respectively (Table 17; Figure 15)

Among the studies of mixed-age groups,<sup>47,72,74,76</sup> there was one outlier study with a sensitivity of only 84% but a specificity of 100% (Table 18).<sup>72</sup> The specificities of the remaining studies were all greater than 94% (Table 18; Figure 16), and the sensitivities were between 92% and 95%. Heterogeneity was detected in the estimates of sensitivity, but not for specificity. The pooled specificity was 95.4% (95% CI: 92.7-97.2).

**Table 16: Included studies for IgA-tTG-GP in adults**

Author, year; country	Study type	Biopsy criteria	Sens	Spec	PPV	NPV	Prev (%)
Biagi, 2001; Italy	Case-control	Partial villous atrophy or greater	87.5	98.1	98	87.1	46.3
Salmaso, 2001; Italy	Case-control	Grades I-IV Marsh with response to a GFD	87	97	90.9	94.9	27.2
Dahele, 2001; Scotland	Case-control	Included 6 with IEL, rest partial villous atrophy or greater	81	97	97.9	74.1	52.5
Carroccio, 2002; Italy	Relevant clinical population	Ferguson and Murray; partial or total villous atrophy	100	92	60	100	18.8
Bardella, 2001; Italy	Relevant clinical population	Marsh	100	98.2	83.3	100	10.0

**Table 17: Included studies for IgA-tTG-GP in children**

Author, country; year	Study type	Biopsy criteria	Sens	Spec	PPV	NPV	Prev
Bonamico, 2001; Italy	Case-control	ESPGAN	90.3	100	100	30.3	0.5
Salmaso, 2001; Italy	Case-control	Grades I-IV Marsh with response to a GFD	95	100	100	94.1	0.6
Hansson, 2000; Sweden	Case-control	ESPGAN	90.9	95.7	95.2	91.7	0.5
Chan, 2001; Canada	Relevant clinical population	Villous atrophy, crypt hyperplasia, increase lymphocytes	89	94	67	98	0.1
Wolters, 2002; Netherlands	Relevant clinical population (identified retrospectively)	Subtotal villous atrophy with crypt hyperplasia	96	92	92.6	95.7	0.5

**Table 18: Included studies for IgA-tTG-GP in studies including both adults and children**

Author, year, country	Study type	Biopsy criteria	Sens	Spec	PPV	NPV	Prev
Dickey, 2001; Northern Ireland	Case-control	Villous atrophy	93.2	96.6	97.1	91.8	0.6
Sblatero, 2000; Italy	Case-control	ESPGAN	84	100	100	62.5	0.8
Sulkanen, 1998; Finland	Case-control	ESPGAN	95	93.7	90.8	96.5	0.4
Troncone, 1999; Italy	Relevant clinical population	ESPGAN	91.7	98	98	94	0.4

Figure 14: IgA-tTG-GP in adults with CD

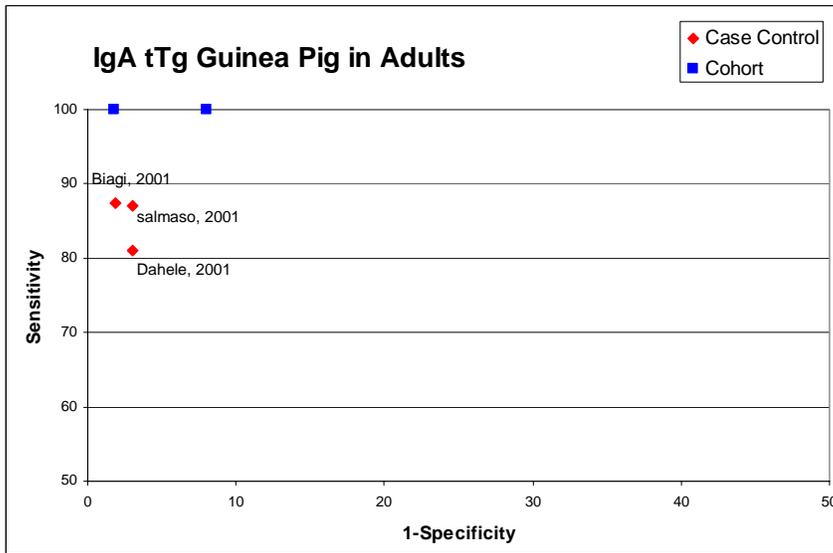


Figure 15: IgA-tTG-GP in children with CD

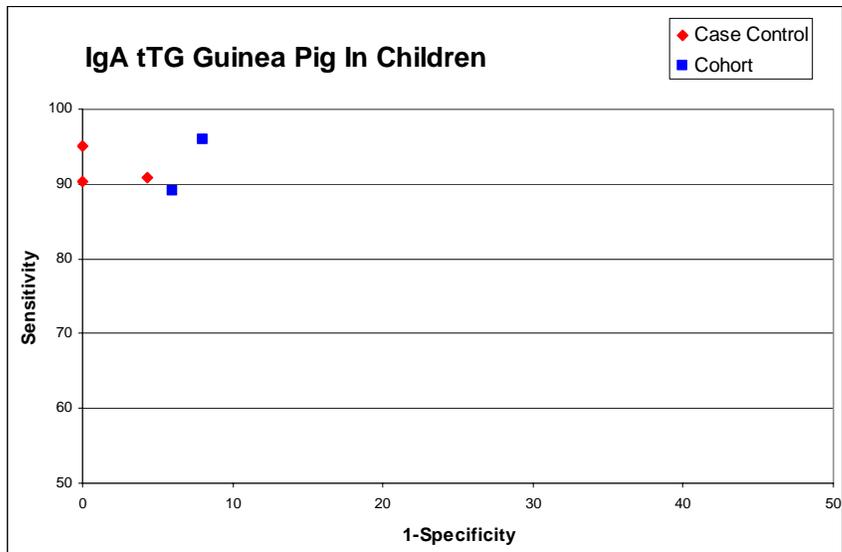
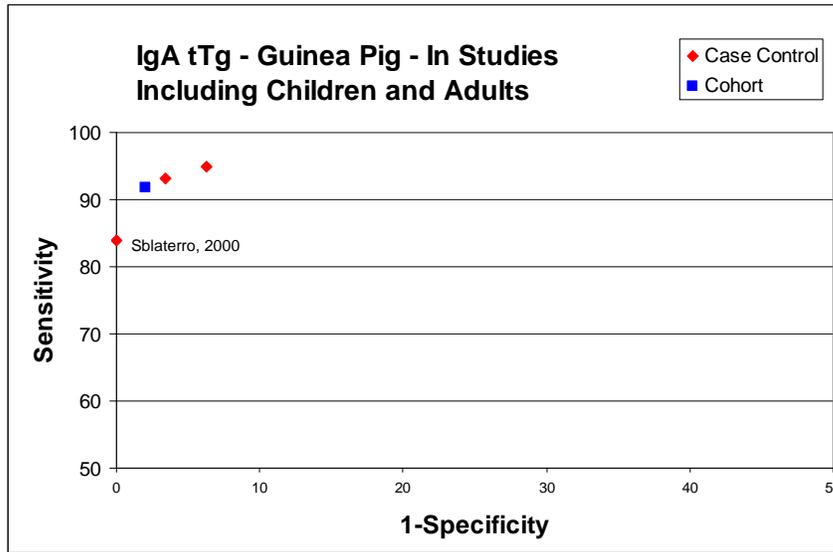


Figure 16: IgA-tTG-GP in adults and children with CD

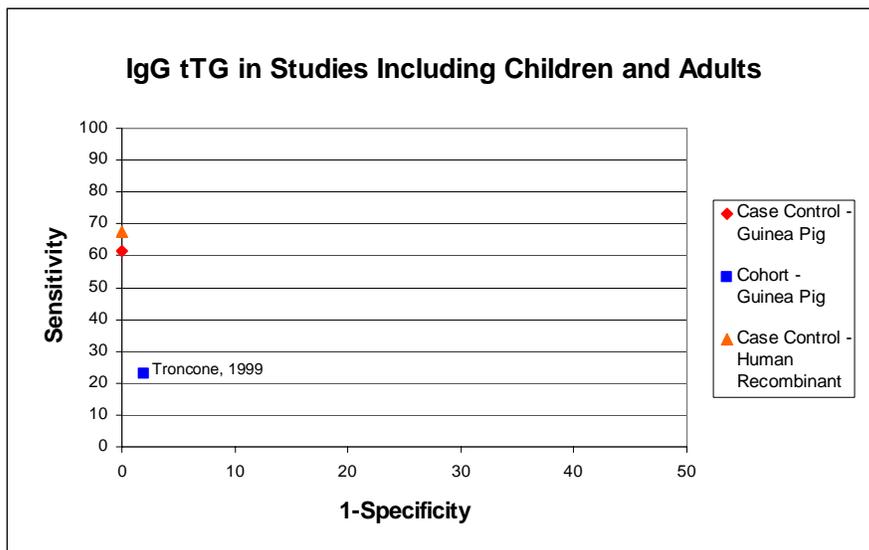


*IgG-tTG-GP*. Two studies in a mixed-age population assessed IgG-tTG- GP (Table 19; Figure 17).<sup>72,76</sup> The specificities in both studies were greater than 98%, but the sensitivities were 23% and 62%, respectively.

Table 19: Included studies for IgG-tTG-GP in studies including both children and adults

Author, year; country	Study type	Biopsy criteria	Sens	Spec	PPV	NPV	Prev
Sblaterro, 2000; Italy	Case-control	ESPGAN	61.5	100	100	44.4	0.8
Troncone, 1999; Italy	Relevant clinical population	ESPGAN	23	98	92	63	0.4

Figure 17: IgG-tTG-GP in adults with CD



### tTG – human recombinant (HR)

*IgG-tTG-HR.* The diagnostic characteristics of IgA-tTG-HR were assessed by ELISA in ten studies, and the diagnostic characteristics IgG-tTG-HR were assessed by ELISA in two studies. Of the IgA-tTG-HR studies, three were conducted in adults,<sup>39,49,54</sup> three in children,<sup>52,79,83</sup> and three in a mixed population.<sup>40,72,75</sup>

Of the IgG-tTG-HR studies, two were conducted in a mixed population (Table 20),<sup>40,72</sup> but none were conducted in adults or children. One study was conducted in IgA-deficient patients and is described below.<sup>40</sup>

Two studies included CD patients with less than a Marsh IIIa grade.<sup>45,70</sup> These studies demonstrated sensitivities of 81% and 95% for IgA-tTG-GP.

One study was conducted in a mixed-age population of patients with known IgA deficiency.<sup>40</sup> In this study, the sensitivity of IgA-tTG-HR was 0%, whereas, the sensitivities and specificities of IgG-tTG-HR were 100% and 80%, respectively.

**Table 20: Included studies for IgG-tTG-HR in studies including both children and adults**

Author, year; country	Study type	Biopsy criteria	Notes	Sens	Spec	PPV	NPV	Prev
Cataldo, 2000; Italy	Case-control	Original & revised criteria?	20 IgA-deficient CD vs healthy IgA-deficient non-CD	100	80	90.1	100	0.7
Sblaterro, 2000; Italy	Case-control	ESPGAN		67.6	100	100	48.7	0.8

*IgA-tTG-HR*. Three studies assessed IgA-tTG-HR in an adult population (Table 21; Figure 18).<sup>39,49,54</sup> There was very little variability in the reported values for the sensitivities and specificities. The sensitivities were 100% in two studies, and 95% in the other. The specificities were 100% in two studies, and 97% in another. The pooled estimates of the sensitivity and specificity were 98.1% (95% CI: 90.1%-99.7%) and 98.0% (95% CI: 95.8-99.1), respectively.

Among the three studies in children (Table 22; Figure 19),<sup>52,79,83</sup> the sensitivities were 96% in two studies and 95% in one. The specificities were 100% in two studies, and 96% in one. The pooled estimates of the sensitivity and specificity were 95.7% (95% CI: 90.3-98.1) and 99.0% (95% CI: 94.6-99.8), respectively.

Only two studies assessed the IgA-tTG-HR in a mixed-age population without IgA deficiency (Table 23; Figure 20).<sup>72,75</sup> The sensitivities and specificities were 92% and 100%, respectively, for the first study, and 91% and 96%, respectively, for the second. The pooled estimates of the sensitivity and specificity were 90.2% (95% CI: 86.4-93.0) and 95.4% (95% CI: 91.5- 97.6), respectively.

Overall, these studies demonstrated a specificity of close to 100% and sensitivity in the range of 90% to 96%.

**Table 21: Included studies for IgA-tTG-HR in adults**

Author, year; country	Study type	Biopsy criteria	Sens	Spec	PPV	NPV	Prev (%)
Carroccio, 2002; Italy	Relevant clinical population	Ferguson and Murray; partial or total villous atrophy	100	97	80	100	14.5
Gillbert, 2000; Italy	Case-control	Mild, moderate, severe villous atrophy	95.2	100	95.2	100	31.7
Kaukinen, 2000; Finland	Relevant clinical population	Villous height to crypt ration <2.0; IEL and HLA also tested	100	100	100	100	8.7

**Table 22: Included studies for IgA-tTG-HR in children**

Author, year; country	Study type	Biopsy criteria	Sens	Spec	PPV	NPV	Prev
Vitoria, 2001; Italy	Case-control	Subtotal villous atrophy	95	100	100	93	0.6
Hansson, 2000; Sweden	Case-control	ESPGAN	95.5	95.7	95.5	95.7	0.5
Wolters, 2002; Netherlands	Relevant clinical population (identified retrospectively)	Subtotal villous atrophy with crypt hyperplasia	96	100	100	96	0.5

**Table 23: Included studies for IgA-tTG-HR in studies including both children and adults**

Author, year; country	Study type	Biopsy criteria	Notes	Sens	Spec	PPV	NPV	Prev
Cataldo, 2000; Italy	Case-control	Original & revised criteria?	20 IgA deficient CD vs healthy IgA-deficient non-CD	0	100	0	33.3	0.7
Sblatero, 2000; Italy	Case-control	ESPGAN		91.5	100	100	76.9	0.8
Tesei, 2003; Argentina	Relevant clinical population	Marsh II to IV - with confirmation		91	96	97	87	0.6

**Figure 18: IgA-tTG-HR in adults with CD**

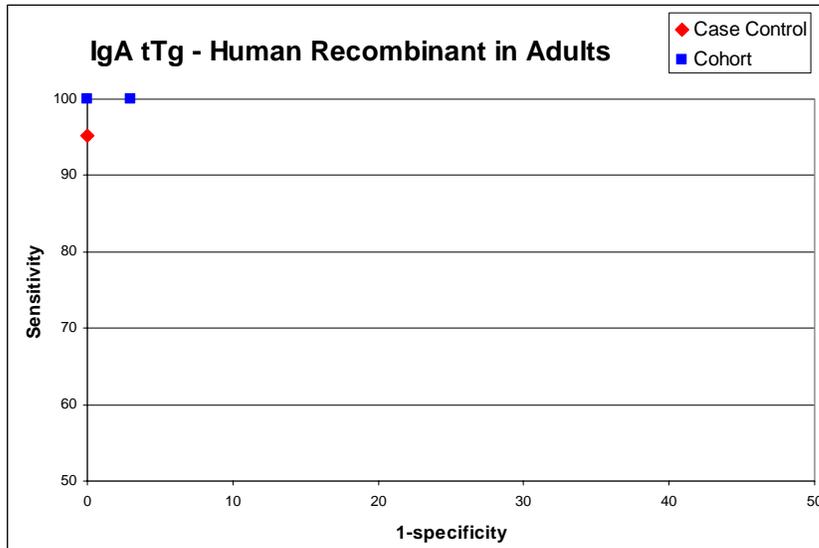


Figure 19: IgA-tTG-HR in children with CD

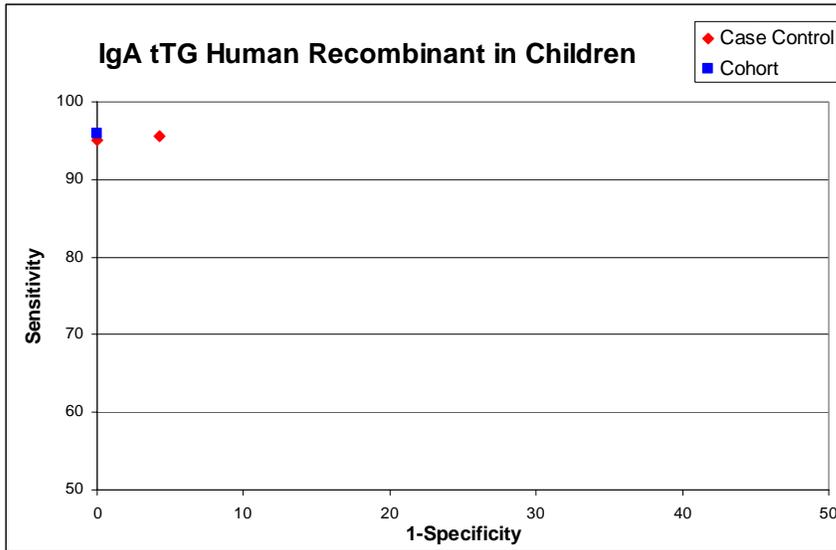
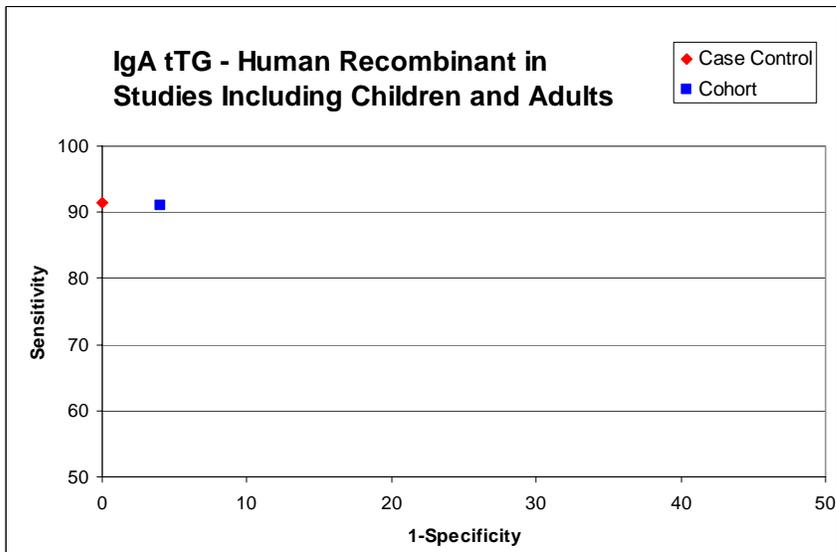


Figure 20: IgA-tTG-HR in adults and children with CD



*IgG-tTG-HR, IgA deficient.* Only one study of IgG-tTG-HR, conducted in an IgA-deficient population, was identified.<sup>72</sup> In this study, the sensitivity and specificity of IgG-tTG-HR was 68% and 100%, respectively.

**Mixed-antibody combinations.** Several studies were identified that tested different antibodies in combination. Six studies in children assessed the use of IgA- and IgG-AGA (Table 24).<sup>34,42,48,50,59,85</sup> When either of these tests were positive, the resulting sensitivities ranged from 83% to 100%, and the specificities ranged from 71% to 99%. One study, that apparently used similar methodologies, had the lowest sensitivity (83%) and specificity (36%) of the group.<sup>85</sup> When the same authors tested the antibodies under the requirement of both tests being concordant, the sensitivity fell, as would be expected, to 50%, and the specificity rose to 67%.<sup>85</sup> Three adult studies were identified that used IgA- and IgG-AGA in an either/or protocol (Table 24).<sup>33,50,78</sup> As was observed in the studies of children, significant between-study differences existed, making pooled estimates inappropriate. Nonetheless, in these studies the sensitivity ranged from 77% to 100%, while the specificity ranged from 90% to 97%.

One study in a mixed-age population assessed the use of a combination of IgA- and IgG-tTG-HR antibodies (Table 25).<sup>72</sup> In this study, the sensitivity when either test was positive was 98.5%, while the specificity remained high at 100%. Another study in children assessed the combination of IgA-AGA and IgA-EMA-HU when either test was positive, and found a sensitivity of 100% and a specificity of 73% (Table 26).<sup>69</sup> This same study assessed the same antibodies under the situation where both tests needed to be concordant. In this circumstance, the sensitivity remained 100% and the specificity rose to 93%.

In general, combining tests when either test is positive tended to improve sensitivity at the cost of specificity, while a requirement for the tests to be concordant tended to improve specificity.

**Table 24: Included studies for combination IgA and IgG AGA, when either test is positive**

Author, year; country	Study type	Biopsy criteria	Notes	Sens	Spec	PPV	NPV	Prev
Valentini, 1994; Italy	Case-control	Partial villous atrophy or greater	Adults	92	90	96.8	77.1	0.76
Bode, 1994; Denmark	Relevant clinical population	Crypt hyperplasia, villous atrophy and increase inflammatory cells	Adults	77	95	71	97	0.41
Gonczy, 1991; Australia	Relevant clinical population (184 children with suspected celiac)	ESPGAN no details on biopsy findings	Adults	100	97.1	96.2	100	0.44
Bode, 1993; Denmark	Relevant clinical population	ESPGAN	Children	86	99	92	99	0.1
Falth-Magnusson, 1994; Sweden	Relevant clinical population	ESPGAN + Alexander grading IV, grade III to IV challenge	Children	88.5	93.7	88.8	93.5	0.4
Lindberg, 1985; Sweden	Relevant clinical population	ESPGAN, Alexander grading	Children	97	83	41.8	98.2	0.3
Artan, 1998; Turkey	Relevant clinical population	ESPGAN	Children: IgA AGA or IgG AGA	83	36	44	77.8	0.3
Gonczy, 1991; Australia	Relevant clinical population (184 children with suspected CD)	ESPGAN no details on biopsy findings	Children	100	98.7	95.2	98.7	0.2
Chartrand, 1997; Canada	Relevant clinical population	ESPGAN – with flat mucosal biopsy	Children	93	71	43	98	0.2

**Table 25: Included studies for combination IgA and IgG tTG-HR, when either test is positive**

Author, year; country	Study type	Biopsy criteria	Notes	Sens	Spec	PPV	NPV	Prev
Sblaterro, 2000; Italy	Case-control	ESPGAN	Adults and children	98.5	100	100	95.2	0.8

**Table 26: Included studies for combination IgA-AGA and IgG-EMA-HU, when either test is positive**

Author, year; country	Study type	Biopsy criteria	Notes	Sens	Spec	PPV	NPV	Prev
Russo, 1999; Canada	Relevant clinical population	ESPGAN	Children	100	73	57	82	0.3

**Prevalence of CD and the positive predictive value (PPV) and negative predictive value (NPV) of serology.** The prevalence of CD in the tested populations is presented in Tables 2 to 26 for the individual studies, and in Table 27 for the pooled estimate for the analysis groups.

The minimum prevalence of CD in individual study populations was greater than 25% in most of the studied analysis groups (i.e., IgA-AGA, IgG-AGA, etc), except for ten analysis groups where the minimum prevalence was between 9% and 12%. In all the analysis groups, the maximum prevalence ranged from 30% to as high as 70%. The pooled prevalence for the analysis groups was predominantly between 30% and 45%.

In assessing the IgA-EMA and IgA-tTG analysis groups, the pooled prevalence ranged from 33% to 46% except for the analysis of IgA-tTG-HR in adults, which showed a pooled prevalence of 16%. Figure 21 is a plot of the individual study prevalence versus the study's PPV, and suggests that below a CD prevalence of about 35% to 40%, the PPV of these IgA-based tests tends to drop from about 90% to 100%, to about 80% or less. As expected, Figure 22 demonstrates the reverse relationship, with the NPV being between 95% and 100% up to a CD prevalence of about 45%, and then dropping off.

**Table 27: Weighted pooled estimates with 95% CIs and heterogeneity identified**

Analysis	Sens	L 95% CI:	U 95% CI:	Spec	L 95% CI:	U 95% CI:	Prev	L 95% CI:	U 95% CI:	PPV	L 95% CI:	U 95% CI:	NPV	L 95% CI:	U 95% CI:
IgA-AGA-ADULT	H	H	H	H	H	H	0.358	0.332	0.385	H	H	H	H	H	H
IgG-AGA-ADULT	H	H	H	H	H	H	0.367	0.335	0.401	H	H	H	H	H	H
IgA-EMA-ME-ADULT	0.974	0.957	0.985	0.996	0.988	0.999	0.398	0.371	0.425	0.974	0.957	0.985	0.996	0.988	0.999
IgG-EMA-ME-ADULT (one study)	0.393	0.236	0.576	0.984	0.913	0.997	0.135	0.079	0.221	0.393	0.236	0.576	0.984	0.913	0.997
IgA-EMA-HU-ADULT	0.902	0.859	0.934	1.000	0.991	1.000	0.331	0.297	0.368	0.902	0.859	0.934	1.000	0.991	1.000
IgA-tTG-GP-ADULT	0.859	0.808	0.898	0.953	0.930	0.969	0.312	0.279	0.348	0.859	0.808	0.898	0.953	0.930	0.969
IgA-tTG-HR-ADULT	0.981	0.901	0.997	0.981	0.958	0.991	0.160	0.126	0.202	0.981	0.901	0.997	0.981	0.958	0.991
IgA-AGA-CHILD	H	H	H	H	H	H	0.363	0.341	0.385	H	H	H	H	H	H
IgG-AGA-CHILD	H	H	H	H	H	H	0.437	0.413	0.462	H	H	H	H	H	H
IgA-EMA-ME-CHILD	0.961	0.945	0.973	0.974	0.963	0.982	0.400	0.378	0.423	0.961	0.945	0.973	0.974	0.963	0.982
IgA-EMA-HU-CHILD	0.969	0.935	0.986	H	H	H	0.447	0.402	0.493	0.969	0.935	0.986	0.949	0.915	0.970
IgA-tTG-GP-CHILD	0.931	0.888	0.959	0.963	0.931	0.980	0.446	0.401	0.493	0.931	0.888	0.959	0.963	0.931	0.980
IgA-tTG-HR-CHILD	0.957	0.903	0.981	0.990	0.946	0.998	0.519	0.452	0.584	0.957	0.903	0.981	0.990	0.946	0.998
IgA-AGA-MIXED	H	H	H	H	H	H	0.415	0.386	0.444	H	H	H	H	H	H

H = significant heterogeneity by Pearson's Chi square

Note: Appendices and Evidence Tables are provided electronically at <http://www.ahrq.gov/clinic/tp/celiactp.htm>

**Table 27 (cont'd): Weighted pooled estimates with 95% CIs and heterogeneity identified**

Analysis	Sens	L 95% CI:	U 95% CI:	Spec	L 95% CI:	U 95% CI:	Prev	L 95% CI:	U 95% CI:	PPV	L 95% CI:	U 95% CI:	NPV	L 95% CI:	U 95% CI:
IgG-AGA-MIXED	H	H	H	H	H	H	0.510	0.480	0.540	H	H	H	H	H	H
IgA-EMA-ME-MIXED	H	H	H	0.995	0.982	0.999	0.467	0.434	0.500	0.859	0.825	0.888	0.995	0.982	0.999
IgA-EMA-HU-MIXED	0.925	0.881	0.954	0.996	0.975	0.999	0.437	0.391	0.484	0.925	0.881	0.954	0.996	0.975	0.999
IgA-tTG-GP-MIXED	H	H	H	0.954	0.927	0.972	0.463	0.425	0.501	0.913	0.877	0.939	0.954	0.927	0.972
IgG-tTG-GP-MIXED	0.451	0.363	0.543	0.988	0.935	0.998	0.265	0.208	0.331	0.451	0.363	0.543	0.988	0.935	0.998
IgA-tTG-HR-MIXED	0.902	0.864	0.930	0.954	0.915	0.976	0.573	0.530	0.616	0.902	0.864	0.930	0.954	0.915	0.976
IgG-tTG-HR-MIXED (one study)	0.677	0.556	0.778	1.000	0.839	1.000	0.518	0.413	0.621	0.677	0.556	0.778	1.000	0.839	1.000
H = significant heterogeneity by Pearson's Chi square Note: see Appendix G for raw pooled data by antibody test															

Figure 21: PPV and prevalence from individual studies

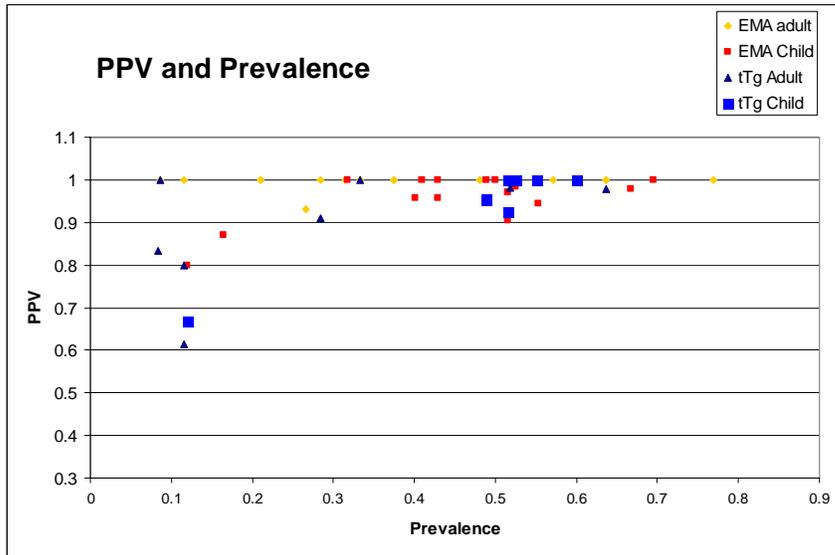


Figure 22: NPV and prevalence from individual studies

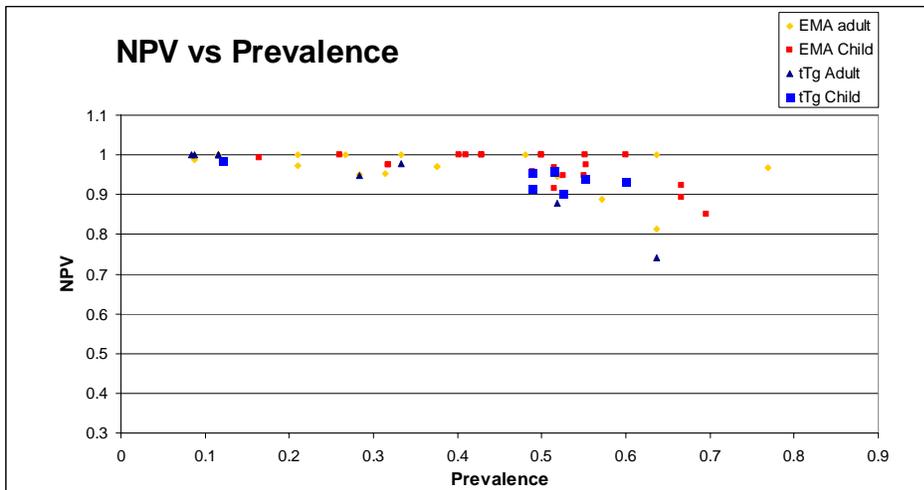
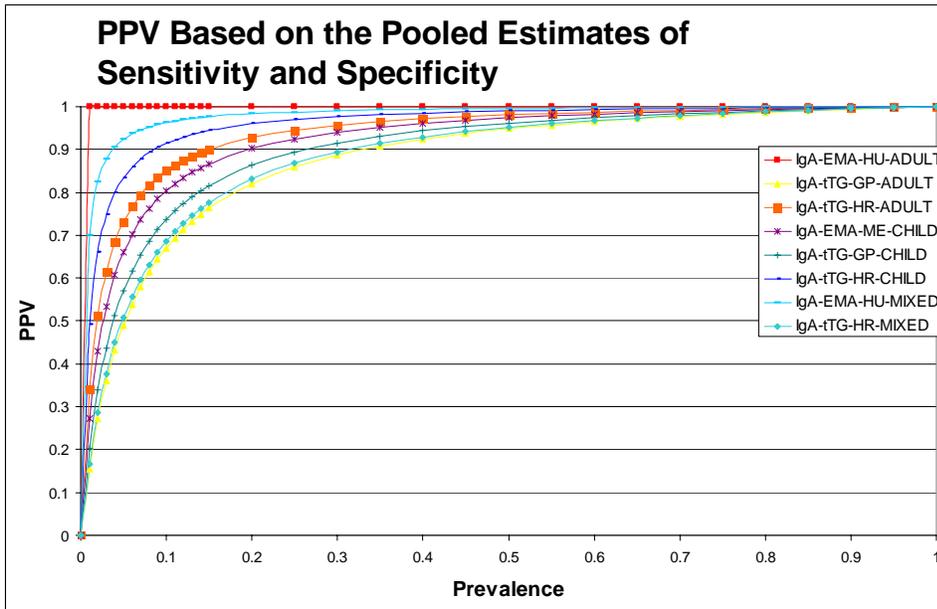


Figure 23: PPV based on the pooled estimates of sensitivity and specificity



## HLA DQ2/DQ8

We identified 99 potentially relevant HLA articles that appeared to address HLA DQ2/DQ8 in a CD population (Appendix F).<sup>8-11,15,53,54,62,91-100,100-177</sup> These studies were not designed to determine the diagnostic utility of DQ2 or DQ8 per se.

Of the identified studies, 54 allowed estimation of the prevalence, sensitivity or specificity of HLA DQ2/DQ8 in the studied population.<sup>8-10,15,53,54,93,100,109,120,134-177</sup> In one study, DQ2 data could not be reliably extracted.<sup>169</sup> The authors of one study<sup>9</sup> explicitly stated that the patients used were the same as in two of their other publications.<sup>8,93</sup> In two other publications by the same authors,<sup>9,10</sup> the patients appear to be different and the authors do not indicate that they used patients from a previous study. However, the possibility that these two studies<sup>9,10</sup> share a subset of patients cannot be excluded. Another two studies addressing different topics but with extractable HLA data, also appeared to have used the same patients.<sup>53,136</sup> In cases of duplicate publications, the studies with the greater number of patients were used.<sup>9,136</sup>

The study designs and strictness of CD diagnosis in these articles varied, as did the inclusion of a control group. Most of the CD cases were diagnosed based on the ESPGAN criteria, although in some studies CD was diagnosed based on serology and then in most cases later confirmed by biopsy.<sup>15,109,120,160,161,164,168,170,172,177</sup> Nine of the studies were classified as cross-sectional studies,<sup>169-177</sup> 32 were case-control studies,<sup>8-10,53,100,120,134-159</sup> and 12 were mixed cross-sectional/case-control studies or could be considered as diagnostic cohort studies.<sup>15,54,109,160-168</sup> Four of the mixed design studies<sup>109,164,166,178</sup> used screen-negative patients as the control group, whereas the rest used a control group that was separate from the screened population. The study populations were also variable. The case-control studies used known CD cases compared with variously defined CD negative controls.

Seven studies used relatives of CD patients,<sup>158,161,164,166,169,172,177</sup> four used a population with Down Syndrome,<sup>109,134,160,170</sup> two used a population with type I diabetes,<sup>165,173</sup> and one used a mixed group of patients with CD including some with Down's and others with diabetes.<sup>173</sup> The mixed-design/cohort studies used patients suspected of CD on clinical grounds or subjects who belonged to a high-risk group, such as type 1 diabetics or first-degree relatives of patients with CD. The remaining articles used a screened healthy population or another specific group.

The articles with extractable data stated the frequency of HLA DQ2, and to a lesser extent the frequency of HLA DQ8, in their CD group. The cross-sectional studies did not include a control group. Only the frequency as a surrogate of sensitivity was available. None of the case-control or mixed-design studies calculated the sensitivity or specificity of HLA DQ2 or DQ8. However, these studies allowed us to derive estimates of these statistics from their results or tables. The considerable degree of clinical and methodological heterogeneity between the identified studies did not allow for statistical pooling of the results.

Two studies fulfilled our inclusion requirement of both cases and control groups undergoing intestinal biopsy (Evidence Table 2, Appendix I; Table 28).<sup>136,152</sup> The remaining studies had various control group types: unbiopsied, healthy controls, disease controls, or serology-negative controls. **These studies provide useful information and are presented at the end of the HLA results section for reference.**

The study by Iltanen et al.,<sup>136</sup> was conducted in a group of Finnish children to assess the density of gamma delta positive intraepithelial lymphocytes ( $\gamma\delta$ + IELs) in: patients with CD by biopsy (ESPGAN); patients with suspected CD where the diagnosis was excluded by biopsy; and, in a group of biopsy-negative patients who underwent endoscopy for dyspepsia. The biopsy

aspect of this study is presented in its respective section. In this study, HLA DQ2 was found in 19 of 21 (90.5%) of patients with CD as apposed to 29 out of 67 (29.9%) of the control patients. Elevated  $\gamma\delta+$  IEL density was significantly associated with DQ2 positivity. The calculated diagnostic measures for this study are presented in Table 28. In this population, DQ2 demonstrated a high sensitivity of 90.5% but a relatively modest specificity of only 70%, which is understandable given that the control population had a fairly high frequency of DQ2 positivity. The prevalence of CD in the study population was 1:4.2 (or 24%). The PPV was 49% and the NPV was 96%, suggesting that a negative DQ2 test result provides the greatest diagnostic information.

Sacchetti et al.<sup>152</sup> studied a group of Italian children suspected of having CD. Patients fulfilling the ESPGAN criteria were classified as having CD (n = 48 of 80), whereas, the remainder (n=32) were considered disease controls. The authors also used a second retrospectively defined group of known CD patients by ESPGAN criteria (n = 74), and a second group control of 180 unbiopsied healthy subjects. HLA DQ2 was determined in the CD group as a whole and in the two control groups, with the results presented in Table 28. In this study, the sensitivity of HLA DQ2 was 88.9% and the specificity was 81% for the comparison with the biopsied controls; the sensitivity of HLA DQ2 was 88.9% and the specificity was 73% for the comparison with the unbiopsied controls. Interestingly, in this study only 18.8% of the biopsy-negative controls were positive for HLA DQ2, whereas, 26.7% of the unbiopsied controls were HLA DQ2 positive. This difference accounts for the higher specificity seen for HLA DQ2 in the comparison with the biopsy-negative control group as compared with the comparison with the healthy controls. The prevalence of CD in the studied population was also quite high in both portions of this study (79% for comparison with biopsied controls and 51% for the comparison with unbiopsied controls). As such the PPV and the NPV of HLA DQ2 in this study were 95% and 62%, respectively. The difference in prevalence between this and the Iltanen study accounts for the differences seen in the PPVs and NPVs.

**Table 28: HLA studies with biopsied cases and controls**

Author, year; country	Prev of CD	DQ2 in CD	DQ2 in controls	Sensitivity	Specificity	PPV	NPV	CD population
Iltanen, 1999; Finland	0.24	90.48	29.85	90%	70%	49%	96%	Known CD versus biopsied controls
Sacchetti, 1998; Italy	0.79	86.89	18.75	87%	81%	95%	62%	Known CD versus biopsied controls
	0.51	86.89	26.72	87%	73%	77%	84%	Versus unbiopsied healthy controls

**HLA all study data.** The following section presents the data of the HLA studies that failed to be included on the basis that the control groups were not assessed with the gold standard test for CD (biopsy). These studies collectively provide useful information on the diagnostic value of HLA testing, but have to be interpreted with caution.

The prevalence of DQ2 and DQ8 in these studies is presented in Table 29, while the results of the diagnostic value of HLA DQ2 and HLA DQ8 are presented in Tables 30 and 31. Unfortunately, none of these studies were actual studies of the diagnostic value of HLA DQ2 or HLA DQ8 for the diagnosis or screening of CD. However, as presented in the Tables, the crude data was abstracted and the diagnostic characteristics were calculated. Significant clinical and statistical heterogeneity existed between these studies, making arithmetic pooling of the studies unjustified. Figure 24 and Figure 25 represent the plotting of each study's sensitivity (true positives) versus 1-specificity (false positives) to create a ROC presentation. The value of these figures lies in the global picture they represent regarding the results of each of the studies. Figure 24 demonstrates that the vast majority of the studies cluster together in a region where the sensitivity of HLA DQ2 is greater than 80%, with most studies lying above the 90% sensitivity mark. In contrast, these same studies have specificities in the range of 55% to 80%. Outlier studies are identified by author name. The best sensitivities and specificities were seen in two studies. The first, by Kaur et al.,<sup>163</sup> was a study from India where only 4.6% of the control population was positive for HLA DQ2. The second study, by Tighe et al.,<sup>149</sup> was conducted in a group of patients with CD and ethnically-matched control subjects from Rome, Italy. The prevalence of CD was quite high in the studied group (51%), and the frequency of HLA DQ2 in the control population of 12.2% was much lower than that observed in other Italian studies.

The remaining outlier studies were divided into a low-sensitivity/high-specificity group (Group 1), and a high-sensitivity/low-specificity group (Group 2). In the first case, all the studies were conducted in a non-Western European population. In particular, the worst performance of HLA DQ2 occurred in a study from Chile,<sup>137</sup> where the frequency of HLA DQ2 was very low in both the patients with CD and the control subjects. It is important to note, however, that not all non-Western populations deviated from the main cluster of studies. For example, Catassi et al.<sup>120</sup> found that 91% of Saharawi Arabs (Algeria) with CD carried HLA DQ2 compared with 38.9% of Saharawi controls. These values are similar to those seen in most Western populations. The second group all showed relatively poor specificity, although the sensitivity was preserved. As would be expected, the control groups of these studies were at high risk of having CD (relatives of CD<sup>158,164,166</sup>), or were a population with a known higher frequency of HLA DQ2 (individuals with diabetes<sup>161,165</sup>). As such, the high frequency of HLA DQ2 in these control populations makes the specificity of HLA DQ2 rather poor.

The frequency of HLA DQ8 in Western European populations with CD varies from approximately 2.7% to 6% (Table 29). The frequency is slightly higher in studies from Italy, the UK, and France (5.6% to 8% of CD patients). The frequency of HLA DQ8 in a subset of patients who had HLA testing in a large American serology screening study for CD was 22%,<sup>15</sup> which is quite a bit higher than that reported in the European studies.

A small group of studies allowed the estimation of the sensitivity and specificity of having either HLA DQ2 or DQ8. The results of these studies are presented in Table 33 and Figure 25. As can be seen in the figure, these studies confer a wide variation. Clearly, the sensitivity of using this strategy is quite high and is likely close to 100% in Western populations. The study by Balas et al.,<sup>155</sup> likely represents the closest to the truth, as this was a typical case-control design in patients with know CD compared with healthy controls. The Fasano et al. study<sup>15</sup>

represents the largest study and gives similar results to those obtained by Balas et al., however, the higher frequency of HLA DQ8 in their control group compared with other studies is of concern. Once again, the remaining studies can be grouped into high-specificity/low-sensitivity (Group 1) and high-sensitivity/low-specificity (Group 2). As was the case for HLA DQ2, Group 1 consists of two studies of non-Western populations, whereas, Group 2 represents studies with first-degree relatives and a study that used patients with diabetes as their control group.

**Table 29: Prevalence/frequency of HLA DQ2 and HLA DQ8 in prevalence and mixed-design studies, and in case-control studies with HLA DQ8 data**

Author	Year	Country	# of CD	% DQ2	% DQ8	% DQ2/8	Population with CD
Lewis	2000	USA	101	90.10	n/a	n/a	Confirmed cases among CD relatives
Book	2001	USA	8	87.50	12.50	100	Down Syndrome
Book	2003	USA	34	n/a	n/a	97.06	Affected 1 <sup>st</sup> -degree relatives of CD sib. pairs
Csizmadia	2000	Netherlands	10	100	20	n/a	Down Syndrome
Fasano	2003	USA	98	83.67	22.45	100	Screened large population only subset tested for HLA
Iltamen	1999	Finland	5	100	n/a	n/a	Sjogren's syndrome
Kaukinen	2000	Finland	6	100	n/a	n/a	Known CD
Maki	2003	Finland	56	85.71	n/a	n/a	Screen of school-age children
Mustalahti	2002	Finland	29	100	n/a	n/a	Relatives of CD or DH
Catassi	2001	Algeria	79	91.3	n/a	95.6	Saharawi Arabs
Lui	2002	Finland	260	96.92	2.69	99.62	Family members of celiacs
Polvi	1996	Finland	45	100	n/a	n/a	Known CD
Ploski / Sollid	1996	Sweden	135	91.85	4.44	96.30	Known CD
Popat	2002	Sweden	62	93.55	n/a	n/a	Known CD
Larizza	2001	Italy	7	100	n/a	n/a	Children with autoimmune thyroid disease, EMA+biopsy
Failla	1996	Italy	7	14.29	n/a	n/a	Down Syndrome (only 7 CD cases)
Farre	1999	Spain	60	93.33	n/a	n/a	1 <sup>st</sup> -degree relatives of celiacs
Balas	1997	Spain	212	94.81	4.25	99.06	Known CD
Zubillaga	2002	Spain	135	92.59	3.70	96.0 (calc)	Mostly CDs, some CD in subjects with Down Syndrome and subjects with diabetes
Karell	2003	France	92	86.96	6.52	93.48	Known CD
		Italy	302	93.71	5.63	89.40	
		Finland	100	91	5.00	96.00	
		Norway/ Sweden	326	91.41	5.21	96.63	
		Uk	188	87.77	7.98	95.74	
		Total	1008	93.71	5.95	93.95	
Kaur	2002	India	35	97.14	n/a	n/a	Known CD
Neuhausen	2002	Israel	23	82.61	56.52	100	Bedouin Arabs
Tuysuz	2001	Turkey	55	83.64	16.36	90.91	Children with known CD
Bouguerra	1996	Tunisia	94	84.04	n/a	n/a	Known CD
Sumnik	2000	Czech	15	80	66.67	100	Diabetics
Perez-Bravo	1999	Chile	62	11.29	25.81	37.10	Chileans

DH = dermatitis herpetiformis

**Table 30: Sensitivity/specificity (calculated) for HLA DQ2 in case-control studies**

<b>Author, year; country</b>	<b>Prev of CD</b>	<b>% DQ2 in CD</b>	<b>% DQ2 in Controls</b>	<b>Sens</b>	<b>Spec</b>	<b>PPV</b>	<b>NPV</b>	<b>CD population</b>
Fine, 2000; USA	0.06	88 (22/25)	31.24 (134/429)	0.88	0.69	0.14	0.99	Known CD
Howell, 1995; UK	0.38	91.21 (83/91)	23.18 (35/151)	0.91	0.77	0.7	0.94	Known CD
Michalski, 1995; Ireland	0.62	96.67 (87/90)	39.29 (22/56)	0.97	0.61	0.8	0.92	Known CD
Colonna, 1990; Italy	0.36	94.59 (140/148)	40.82 (109/267)	0.95	0.59	0.56	0.95	Known CD
Catassi, 2001; Algeria	0.37	91.1 (72/79)	38.9 (53/136)	0.91	0.61	0.58	0.92	Saharawi Arabs
Congia, 1991; Italy	0.2	96 (24/25)	34 (34/100)	0.96	0.66	0.41	0.99	Known CD
Ferrante, 1992; Italy	0.48	88 (44/50)	16.36 (9/55)	0.88	0.84	0.83	0.88	Known CD
Mazzilli, 1992; Italy	0.5	92 (46/50)	18 (9/50)	0.92	0.82	0.84	0.91	Known CD
Tighe, 1992; Italy	0.49	70.59 (39/43)	8.33 (5/41)	0.91	0.88	0.89	0.9	Known CD
Castro, 1993; Italy	0.38	80 (4/5)	37.5 (3/8)	0.8	0.63	0.57	0.83	Down Syndrome
Lio, 1997; Italy	0.45	100 (18/18)	63.64 (14/22)	1	0.36	0.56	1	Known CD
Sacchetti, 1998; Italy	0.79	86.89 (106/122)	18.75 (6/32)	0.87	0.81	0.95	0.62	Known CD and biopsied controls
Sacchetti, 1998; Italy	0.51	86.89 (106/122)	26.72 (31/116)	0.87	0.73	0.77	0.84	Healthy controls
Iltamen, 1999; Finland	0.24	90.48 (19/21)	29.85 (20/67)	0.9	0.7	0.49	0.96	Known CD
Ploski/Sollid, 1993; Sweden	0.34	94.68 (89/94)	25.97 (47/181)	0.95	0.74	0.65	0.96	Known CD
Pattersson, 1933; Sweden	0.4	92.31 (60/65)	43.75 (42/96)	0.92	0.56	0.59	0.92	Known CD
Ploski/Sollid, 1996; Sweden	0.43	91.85 (124/135)	22.35 (40/179)	0.92	0.78	0.76	0.93	CD vs blood donors
Fernandez-Arquero, 1995; Spain	0.36	92 (92/100)	25.56 (46/180)	0.92	0.74	0.67	0.94	Known CD
Arranz, 1997; Spain	0.5	92 (46/50)	24 (12/50)	0.92	0.76	0.79	0.9	Known CD
Balas, 1997; Spain	0.22	94.81 (201/212)	29.25 (217/742)	0.95	0.71	0.48	0.98	Known CD

**Table 30 (cont'd): Sensitivity/specificity (calculated) for HLA DQ2 in case-control studies**

<b>Author, year; country</b>	<b>Prev of CD</b>	<b>% DQ2 in CD</b>	<b>% DQ2 in Controls</b>	<b>Sens</b>	<b>Spec</b>	<b>PPV</b>	<b>NPV</b>	<b>CD population</b>
Ruiz Del Prado, 2001; Spain	0.04	94.74 (36/38)	39.22 (351/895)	0.95	0.61	0.09	1	Known CD
Dijilali-Saiah, 1994; France	0.27	88.75 (71/80)	21.13 (45/213)	0.89	0.79	0.61	0.95	Known CD
Dijilali-Saiah, 1998; France	0.44	83.17 (84/101)	20 (26/130)	0.83	0.8	0.76	0.86	Known CD
Tighe, 1993; Israel	0.51	90.7 (24/34)	12.2 (3/36)	0.71	0.92	0.89	0.77	Ashkenazi Jews, known CD
Arnason, 1994; Iceland	0.13	84 (21/25)	36.36 (60/165)	0.84	0.64	0.26	0.96	Known CD
Boy, 1994; Sardinia	0.5	96 (48/50)	32 (16/50)	0.96	0.68	0.75	0.94	Known CD
Congia, 1994; Sardinia	0.42	90.77 (59/65)	39.33 (35/89)	0.91	0.61	0.63	0.9	Known CD
Erkan, 1999; Turkey	0.5	40 (12/30)	6.67 (2/30)	0.4	0.93	0.86	0.61	Known CD
Tumer, 2000; Turkey	0.3	51.52 (17/33)	25.97 (20/77)	0.52	0.74	0.46	0.78	Turkish, known CD
Tuysuz, 2001; Turkey	0.52	83.64 (46/55)	24 (12/50)	0.84	0.76	0.79	0.81	Turkish, known CD
Perez-Bravo, 1999; Chile	0.33	11.29 (7/62)	2.42 (3/124)	0.11	0.98	0.7	0.69	Chilean

**Table 31: Sensitivity/specificity (calculated) for HLA DQ2 in mixed-design studies**

Author, year; country	Prev of CD	% DQ2 in CD	% DQ2 in controls	Sens	Spec	PPV	NPV	CD population
Book, 2001; USA	0.09	87.50 (7/8)	15.58 (12/77)	0.88	0.84	0.37	0.98	Down Syndrome
Csizmadia, 2000; Netherlands	0.11	100 (10/10)	28 (25/90)	1.00	0.72	0.29	1.00	Down Syndrome
Fasano, 2003; USA	0.52	83.67 (82/98)	42.39 (39/92)	0.84	0.58	0.68	0.77	9019 at risk, 4126 not at risk
Larizza, 2001; Italy	0.08	100 (7/7)	34.62 (27/78)	1	0.65	0.21	1	Children with autoimmune thyroid disease, EMA+biopsy
Polvi, 1996; Finland	0.58	100 (45/45)	28.13 (9/32)	1	0.72	0.83	1	CD vs various controls
Iltamen, 1999; Finland	0.15	100 (5/5)	n/a	1	n/a	n/a	n/a	Sjogren's syndrome
Kaukinen, 2000; Finland	0.17	100 (6/6)	n/a	1	n/a	n/a	n/a	CD vs disease controls
Lui, 2002; Finland	0.52	96.92 (252/260)	57.38 (136/237)	0.97	0.43	0.65	0.93	Family members of celiacs (controls=unaffected family members)
Farre, 1999; Spain	0.55	93.33 (56/60)	18 (9/50)	0.93	0.82	0.86	0.91	CD vs healthy controls
	0.26	93.33(56/60)	63.91(108/169)	0.93	0.36	0.34	0.94	CD vs relatives of CD
Sumnik, 2000; Czech	0.07	80 (12/15)	49.46 (92/186)	0.8	0.51	0.12	0.97	Diabetes (control=EMA neg.)
Kaur, 2002; India	0.11	97.14 (34/35)	4.64 (13/280)	0.97	0.95	0.72	1	CD vs healthy controls
Neuhausen, 2002; Israel	0.31	82.61 (19/23)	61.54 (32/52)	0.83	0.38	0.37	0.83	Bedouin Arabs (some cases and controls not biopsied)

**Table 32: Sensitivity/specificity (calculated) for HLA DQ8**

<b>Author, year; country</b>	<b>Prev of CD</b>	<b>DQ8 in CD</b>	<b>DQ8 in controls</b>	<b>Sens</b>	<b>Spec</b>	<b>PPV</b>	<b>NPV</b>	<b>CD population</b>
Csizmadia, 2000; Netherlands	0.11	20 (2/10)	20 (18/90)	0.20	0.80	0.10	0.90	Down Syndrome
Fasano, 2003; USA	0.52	22.45 (22/98)	20.65 (19/92)	0.22	0.79	0.54	0.49	Screened at-risk and not-at-risk populations
Lui, 2002; Finland	0.52	2.69 (7/260)	10.55 (25/237)	0.03	0.89	0.22	0.46	Family members of CD patients (controls=unaffected family members)
Ploski/Sollid 1996; Sweden	0.43	4.44 (6/135)	25.14 (45/179)	0.04	0.75	0.12	0.51	Known CD
Balas, 1997; Spain	0.22	4.25 (9/212)	16.85 (125/742)	0.04	0.83	0.07	0.75	Known CD
Sumnik, 2000; Czech	0.07	66.67 (10/15)	65.59 (122/186)	0.67	0.34	0.08	0.93	Diabetes
Neuhausen, 2002; Israel	0.31	56.52 (13/23)	25 (13/52)	0.57	0.75	0.5	0.8	Bedouin Arabs
Tuysuz, 2001; Turkey	0.52	16.36 (9/55)	8 (4/50)	0.16	0.92	0.69	0.5	Turkish known CD
Perez-Bravo, 1999; Chile	0.33	25.81 (16/62)	12.9 (16/124)	0.26	0.87	0.5	0.7	Chileans

**Table 33: Sensitivity/specificity (calculated) for HLA DQ2 or DQ8**

Author; year; country	Prev of CD	DQ2 or DQ8 in CD	DQ2 or DQ8 in controls	Sens	Spec	PPV	NPV	Notes
Fasano, 2003; USA	0.52	100 (98/98)	59.78 (55/92)	1	0.4	0.64	1	Screened at-risk and not-at-risk populations
Catassi, 2001; Algeria	0.37	96.2 (76/79)	41.9 (57/136)	0.96	0.58	0.57	0.96	Saharawi Arabs
Lui, 2002; Finland	0.52	99.62 (259/260)	67.93 (161/237)	1	0.32	0.62	0.99	Family members of CD (controls=unaffected family members)
Balas, 1997; Spain	0.22	99.06 (210/212)	46.09 (342/742)	0.99	0.54	0.38	1	Known CD
Sumnik, 2000; Czech	0.07	100 (15/15)	87.63 (163/186)	1	0.12	0.08	1	Diabetes
Tuysuz, 2001; Turkey	0.52	90.91 (50/55)	32 (16/50)	0.91	0.68	0.76	0.87	Turkish Known CD
Neuhausen, 2002; Israel	0.31	100 (23/23)	86.54 (45/52)	1	0.13	0.34	1	Bedouin Arabs
Perez- Bravo, 1999; Chile	0.33	37.1 (23/62)	15.32 (19/124)	0.37	0.85	0.55	0.73	Chileans

**Figure 24: HLA DQ2**

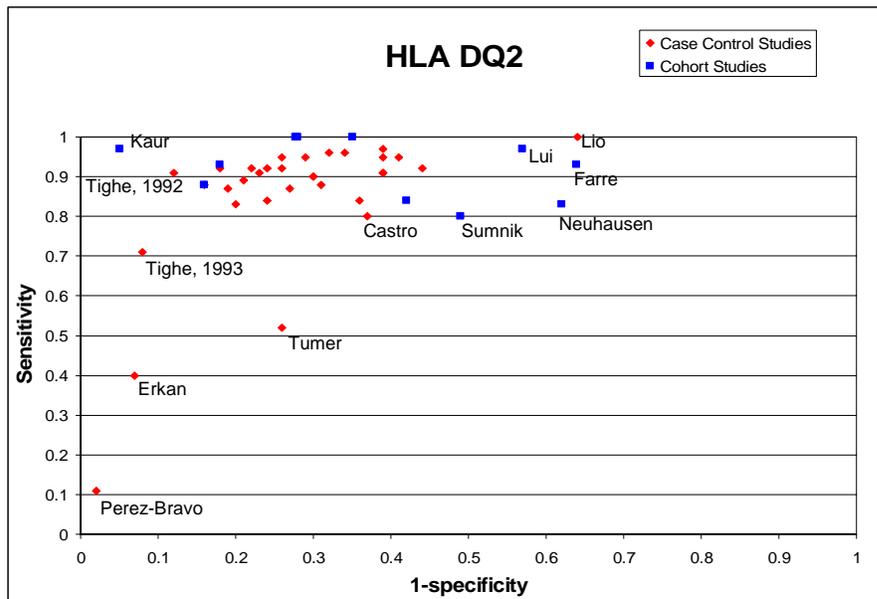
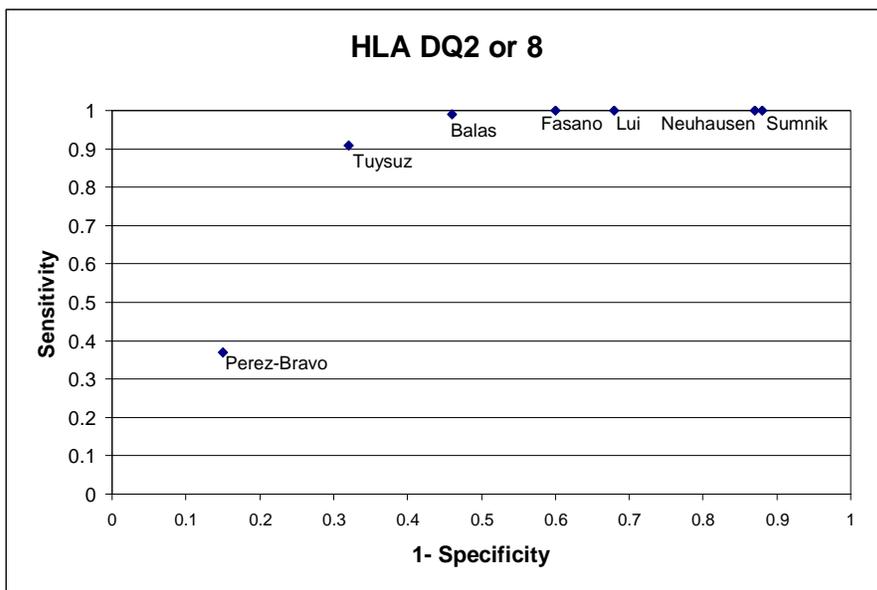


Figure 25: HLA DQ2 and DQ8



## Biopsy

Using epidemiologically appropriate eligibility criteria, our comprehensive literature search did not identify any studies that specifically addressed the question of the sensitivity or specificity of biopsy for the diagnosis of CD.

However we sought to obtain indirect evidence regarding the diagnostic performance of biopsy as a test for CD. Some data was available from those studies identified for other review objectives, such as the cross-sectional screening studies, the HLA DQ2/8 studies, and studies of IELs. We also sought studies of follow-up of biopsy negative patients suspected of CD, and studies of silent and latent CD. The findings from these studies are presented in the Discussion and in Appendix H.

## Quality Assessment

Overall, the quality of the diagnostic studies assessed in the Celiac 1 objective was quite good (Appendix J, Table 1). However, 59% of the studies reported using a selected patient population that may not be representative of a clinically relevant population. This is likely related to study design. Only 11% of the studies reported on whether the reference test was reported without knowledge of the index test. We felt that this was not a major threat to the validity of the studies.

## Celiac 2: Incidence and Prevalence of CD

The literature search yielded 2,116 references (Appendix F). A first-level screen of the titles, abstracts and keywords, for articles that related to the incidence or prevalence of CD, excluded 1,506 references. Full-text versions of each of the 610 retained references were obtained and used for a second-level screen for articles, with a focus on the incidence and/or prevalence of CD. Review articles were also identified and kept for reference (n = 71). Three hundred and forty-eight out of the 610 references were excluded. The remaining 262 references were screened at a third level (Appendix F). Studies were included if they reported the prevalence and/or incidence of CD in the following groups: (1) general populations from North America or Western Europe; (2) first-degree relatives of patients with CD; (3) patients with type 1 diabetes; (4) patients being investigated for anemia; (5) patients with osteoporosis or osteopenia; (6) patients with suspected CD on the basis of their clinical presentations. We did not use any geographic restriction for the studies of populations at risk (first-degree relatives and type 1 diabetics) or of associated clinical presentations (suspected CD, anemia, or metabolic bone disease). Studies of prevalence or incidence that used AGA tests conducted prior to 1990 were excluded after discussion with the AHRQ because of potential problems with the reliability of older AGA assays. Reports which were not sufficiently explicit for data extraction also had to be excluded.<sup>179-181</sup>

We defined incidence studies as those studies that reported the total number of new cases of CD for a given territory and period, over a unit of population density. Therefore, studies of incidence where there was no population denominator were excluded. When multiple studies of incidence of CD were available for a similar country or geographic area, the most recent and/or most encompassing was selected. In general, we excluded the studies whose observation periods pertained exclusively to a period prior to 1990.

A total of 133 publications were selected. Of these, 14 publications were identified as duplicates on the basis that the same study population was reported on elsewhere, or as part of a larger cohort.<sup>122,182-194</sup> The remaining 119 original studies on prevalence and/or incidence of CD in the populations of interest were included and their data abstracted. Of these included studies, 42 assessed the prevalence and/or incidence of CD in a general population. Twelve of the 42 reported on the incidence of CD,<sup>128,195-205</sup> and 30 reported on the prevalence, either in the US (three studies<sup>206-208</sup>), Scandinavia (11 studies<sup>209-219</sup>), Italy and San Marino (seven studies<sup>126,220-225</sup>), UK (four studies<sup>226-229</sup>), or other countries (Spain<sup>230</sup>, the Netherlands,<sup>231,232</sup> Switzerland,<sup>233</sup> and Germany<sup>234</sup>).

Studies of the prevalence of CD in populations at risk were divided as follows: 18 studies of the first-degree relatives of CD patients,<sup>129,167,206,235-249</sup> and 34 studies in patients with type 1 diabetes.<sup>234,250-282</sup>

Studies of the prevalence of CD in patients with associated clinical presentations were divided as follows: 12 studies in anemia and/or iron deficiency,<sup>283-294</sup> four studies in metabolic bone disease,<sup>295-298</sup> and 13 studies of patients with suspected CD on the basis of their clinical presentation.<sup>206,238,299-309</sup> The clinical manifestations that were included in the “suspected CD category” were: chronic diarrhea, weight loss, malabsorption or abdominal pain in adults and failure to thrive, short stature, malabsorption, chronic diarrhea, and abdominal pain in children. Four studies included groups at multiple-risk levels.<sup>206,234,238,272</sup>

## Incidence of CD in the General Population

The incidence of CD in North America and Western Europe was derived from studies from the following countries: US,<sup>128,205</sup> England,<sup>201</sup> Italy,<sup>202</sup> Sicily,<sup>203</sup> Spain,<sup>204</sup> Netherlands,<sup>200</sup> Sweden,<sup>195</sup> Denmark,<sup>196,197</sup> and Finland (Evidence Table 3, Appendix I; Table 34).<sup>198,199</sup> In the report, crude incidence is defined as the number of new cases per 100,000 population-at-risk per year and cumulative incidence as the number of new cases per 1,000 live births; cumulative incidence is age-specific and its denominator reflects the total number of individuals from the same year of birth (i.e., birth cohort).

**Table 34: Included studies of incidence of CD in the general population**

Study	Country, period	Group at risk	Period related to results	Incidence	
				Crude incidence (# cases/100,000 patient year)	Cumulative incidence (# cases/1,000 births)
Ivarsson, 2003  Duplicate Ivarsson, 2000 <sup>193</sup>	Sweden, 1973-97	Children	1997 (0-2 y)	51 (95% CI: 36-70)	Age 2 (1995): 1.7 (95% CI: 1.3-2.1)
1996 (2-5 y)			33 (95% CI: 24-44)		
1996 (5-15 y)			10 (95% CI: 7-13)		
Weile, 1993  Duplicate Weile, 1993 <sup>196</sup>	Denmark, 1960-88	Children	1960-88		Age 5 (1988): 0.118
Maki, 1990  Duplicate ref <sup>194</sup>	Finland, 1960-84	Children	1974-83	3.46 (95% CI: n/r)	
Hawkes, 2000	England, 1981-95	Children	1991-95	2.15 (95% CI: n/r)	
Magazzu, 1994	Sicily 1975-89	Children	1989 birth cohort		Age 5 (1989): 1.16 95% CI: 0.92- 1.42
Lopez-Rodriguez, 2003	Spain, 1981-99	Children 0-14 y	1981-90	6.87 (95% CI: 5.26-8.83)	
			1991-99	16.04 (95% CI: 12.99-19.59)	
		Children 0-4 y	1991-99	42.04 (95% CI: n/r)	
Hoffenberg, 2003	US (Denver, Colorado), 1993-99	Children	1993-99		Age 5 (1999): 9 (95% CI: 4-20)
Jansen, 1993	Netherlands 1990-92	All ages	1991-92	1.0 (95% CI: n/r)	
Corrao, 1995	Italy 1990-91	All ages	1990-91	2.13 (95% CI: n/r)	Age 5 (1991): 0.81
Talley, 1994	US 1960-90 Olmstead County	All ages	1960-90	1.2 (95% CI: 0.7-1.6)	
			1980-90	1.7 (95% CI: n/r)	
Bodé, 1996	Denmark, 1976-91	Adults	1976-91	1.27 (95% CI: n/r)	
Collin, 1997	Finland, 1975-94	Adults	1990-94	17.2 (95% CI: n/r)	
Hawkes, 2000	England, 1981-95	Adults	1991-95	3.08 (95% CI: n/r)	

**Incidence in children:** The crude incidence of CD in children age 0 to 15 years varied from 2.15 to 51 cases per 100,000 patient years.<sup>193-195,198,201,204</sup> When reported, the relative risk (RR) of CD was greatest for the 0- to 2-year age group, as well as for women, and varied from 32.26 to

42.4<sup>193,195,204</sup> and from 1.9 to 3.34,<sup>128,193,195</sup> respectively. The cumulative incidence at age 5, when reported, varied between 0.089 and 9 cases per 1,000 live births.<sup>128,196,202,203</sup> (see Table 34).

The incidence of CD has been most studied in the Scandinavian countries, particularly Sweden,<sup>193,195,310-313</sup> Denmark,<sup>196,197,313,314</sup> and Finland,<sup>194,198,199</sup> where important disparities have been observed over time and between countries. Reports from these countries have the advantage of being derived from comprehensive prospective databases and from populations which are genetically fairly stable, shedding light on potential environmental causal exposures,<sup>195,196</sup> or on variations in practice patterns.

In Scandinavia, the highest incidences of CD in children were found in Sweden for the 0- to 2-year age group from 1987 to 1997, where an average of 198 new cases per 100,000 patient years (95% CI: 186-210) were observed.<sup>193,195</sup> This peak in incidence was followed by a rapid decline, observed during 1995-97, where incidences dropped to an average of 51/100,000 patient years (95% CI: 36-70). In contrast, the incidence of CD in children aged 2 to 4.9 years and 5 to 15 years was only slightly increased over the 1973-97 period, with a peak in 1996 of 33 cases (95% CI: 24-44) per 100,000 patient years and 10 cases (95% CI: 7-13) per 100,000 patient years for these respective age groups. A cohort effect was noted in that the cumulative incidences at 2 years of age for the children belonging to birth cohorts from 1984 to 1994 were on the gradual rise (up to 4.4 cases/1,000 births [95% CI: 3.8-5.0] for the 1993 cohort), while a progressive decline was observed for birth cohorts from 1994 to 1996 (down to 1.7 cases [95% CI: 1.3-2.1] per 1,000 births for the 1995 cohort). Most of these cases were symptomatic, so that these observations are unlikely to be due to changes in screening practices. Interestingly, these changes mirrored changes in the composition of infant formulas, with the highest values of a wheat/rye/barley exposure index during the years 1982-1994.

In contrast, the incidence of CD in Denmark, a neighbouring country, has been significantly lower and very stable from 1960 to 1988,<sup>196</sup> with an average incidence of 0.089/1,000 live births for that period.<sup>313</sup> A comparison of dietary exposures between Swedish and Danish children diagnosed with CD between 1972 and 1989 showed that by the age of 8 months, the Swedish diet contained more than 40 times more gliadin than the Danish diet.<sup>313</sup> In Finland, incidences have also been fairly stable, and have in fact decreased among infants but increased among older children.<sup>198</sup> However, these observations date back to 1984 and can therefore not be compared with the Swedish epidemics.

Spain has also seen an increased incidence of CD over the past 25 years, from 6.87 (95% CI: 5.26-8.83) cases/100,000/year in 1981-90 to 16.04 cases/100,000/year (95% CI: 12.99-19.59) in 1991-99,<sup>204</sup> an observation that was correlated with an increased proportion of silent or atypical presentations at diagnosis (i.e., inferring a role for changes in clinical practice). The age at diagnosis also correlated positively with the age at which gluten was introduced in the diet.

The role of dietary exposure during infancy is also highlighted in studies from the UK, where recommendations on infant feeding, promoting breastfeeding and later introduction of starches, were published in 1974. Subsequent to these recommendations, there was a fall in the incidence of childhood CD;<sup>315,316</sup> however, this data is not presented in detail because we focused on reports from the past 15 years.

As opposed to the incidences derived from reported cases, the incidence observed from a prospective screening protocol are not subject to variations related to practice patterns and are obviously more comprehensive and accurate. Hoffenberg et al., from the US, conducted the only prospective CD screening study available to date.<sup>128</sup> Between December 1993 and September 1999, a total of 22,346 newborns in Denver, Colorado were screened for HLA genotypes

associated with CD and type 1 diabetes. A representative sample of at risk HLA DRB1\*03 positive infants were prospectively followed (n=987), for as long as the first seven years of life. Serological screening was performed at nine, 15 and 24 months of age, then yearly. Small bowel biopsies were recommended if the serology (tTG in most cases) was positive on two separate occasions, or in the presence of clinical suspicion. Between 1993 and 1999, 19 children were found to have evidence of CD, ten children had biopsy-confirmed CD, whereas, nine children had a positive tTG result at least twice. The mean age at presentation of evidence of CD was 4.6 years (range 2.6-6.5). Compared with HLA-DR3-negative children, the RR for evidence of CD was 5.6 (1.5-21, p=0.009) and 9.1 (1.7-48, p=0.003), for those expressing one and two HLA-DR3 alleles, respectively. The RR of CD in females was 3.34 (1-10.9, p=0.048) times that of males. Cognisant of the prevalence of HLA-DR mono- and heterozygotes among the same birth cohort, the authors calculated that by the age of 5, the estimated cumulative incidence of CD in the general population (defined as either biopsy-proven CD or persistently elevated tTG) was 9/1000 births (95% CI: 4-20), or 1:104 (1:49 to 1:221). This remarkably high cumulative incidence (i.e., twice that of the highest value among Swedish children at 4 years of age – 5.0 [95% CI: 4.4-5.7]<sup>193</sup>) has to be interpreted in light of the fact that only ten out of the 19 cases had been biopsied; the remaining nine cases were diagnosed on the basis of a persistently elevated tTG titre, the PPV of which the same authors reported to be only 70% to 83%.<sup>317</sup> However, as mentioned above, these results are derived from an actual prospective and systematic screening intervention for CD, where asymptomatic cases would be detected. In all likelihood, there is therefore an important proportion of CD cases who remain undiagnosed during early childhood.

**Incidence in adults:** The crude incidence of CD in adults varied from lows of 1.27 in Denmark<sup>197</sup> and 3.08 in England,<sup>201</sup> to a high of 17.2 cases per 100,000 patient years in Finland,<sup>199</sup> where specific efforts had been undertaken to encourage screening for CD (see Table 34).

As has been observed for children, the incidence of CD in adults seems to have increased over the past 20 years.<sup>199,201</sup> This is largely explained by a change in practice patterns: physicians are more aware of the condition, its atypical manifestations and associated condition, while at the same time, serological testing has become widely available. There are therefore more diagnoses made on the basis of case-finding. This is reflected by the fact that the proportion of patients being diagnosed with CD in the absence of symptoms, or as a result of serological testing, has also increased.<sup>199,201,318-320</sup>

In Finland over the period 1975-94, Collin et al.<sup>199</sup> have observed a ten-fold rise in the incidence of CD. The authors attributed this to the use of serologic screening (physicians were actively told to screen patients with type I insulin-dependent diabetes (IDDM), autoimmune thyroid disease, connective tissue diseases, women with infertility, patients with neurologic symptoms and first-degree relatives of CD patients), the routine performance of intestinal biopsies on all patients undergoing gastroscopy, and to the opening of open-access endoscopy clinics, creating the ability of all general practitioners to refer patients for gastroscopy.

In Italy, a gradual increase in the number of annual new CD diagnoses was observed between 1968 and 1992,<sup>318,320</sup> this increase correlated with an increased proportion of patients with subclinical presentations being identified.<sup>318,320</sup> Interestingly, despite the changing clinical presentation, there was no statistical difference between the histological grades at diagnosis.<sup>320</sup>

The incidence of CD in individuals of all ages varies from 1.0 in the Netherlands<sup>200</sup> to 2.13 in Italy.<sup>202</sup> In Italy, the RR of CD in adults ranged from 0.11 in the >60 year group to 0.33 in the 16-39 year group, compared with children.<sup>202</sup> The RR of CD for females was 1.90 (95% CI: 1.48-2.45).<sup>202</sup>

In the US, the 30-year incidence (1960-90) for Olmstead County was 1.2 (95% CI: 0.7-1.6), and the incidence for 1980-90 was slightly higher at 1.7 (95% CI: not reported).<sup>205</sup> This observation contrasts with the cumulative incidence of 9/1000 by age 5 reported by Hoffenberg from Denver, Colorado;<sup>128</sup> clearly, further knowledge of the epidemiology of CD in the US is required.

The point prevalence of CD can be calculated from registers of CD cases and the size of the population at risk; we found reports of such an observation in three of the included incidence studies.<sup>199,199,205</sup> The point prevalence of CD was 21.8/100,000 in Olmstead County in 1991,<sup>205</sup> 2.7/100,000 (95% CI: 11.0-14.5) in the Netherlands in 1992,<sup>200</sup> and 204/100,000 (95% CI: 181-231) in Finland in 1994.<sup>199</sup> Of note, the later prevalence from Finland was observed in a community where intense efforts had been carried to screen the population at risk for CD.

## Prevalence of CD in the General Population—Different Geographic and Racial/Ethnic Populations

Thirty-seven studies reported on the prevalence of CD in a general population (Evidence Table 4, Appendix I; Table 35). Three of these were conducted in the US,<sup>206-208</sup> 16 in the Scandinavian countries,<sup>184-187,209-219,232</sup> eight in Italy,<sup>126,182,183,220,221,223-225</sup> five in the UK,<sup>188,226-229</sup> and five in other countries (Spain,<sup>230</sup> Republic of San Marino,<sup>222</sup> the Netherlands,<sup>231</sup> Switzerland<sup>233</sup> and Germany<sup>234</sup>). Several pairs of duplicate publications were identified including two triplets,<sup>182-188,211,213,218,220,321</sup> which brought the total number of included unique articles down to 30. The articles with the most complete data were used for the report.<sup>126,206-234</sup> Only seven studies were conducted in a child population,<sup>206,209,215,220,221,223,232,233</sup> but one large American study included separate data for both adults and children.<sup>206</sup> All the included studies were conducted between 1992 and 2003. A summary of the included study characteristics is presented in Table 35. A breakdown of the included studies by screening test and age group is provided in Table 36.

The prevalence of CD by serology in the general unselected populations of North America and Western Europe, ranged widely from 152 per 100,000 (0.152% or 1:658) to 2,670 per 100,000 (2.67% or 1:37). The prevalence by biopsy ranged from 152 per 100,000 (0.152% or 1:658) to 1,870 per 100,000 (1.87% or 1:53). In four of the studies, a large proportion of the serology-positive subjects did not undergo biopsy.<sup>206,216,224,232</sup>

Among the included studies, there was no clear pattern relating prevalence to study age group, or in a consistent way to country, with large numbers of studies clustering around a prevalence range of 0.0025 to 0.014 by serology and 0.0025 to 0.010 by biopsy (Table 35; Figure 26, 27). In fact for prevalence by serology, the 50<sup>th</sup>, 75<sup>th</sup>, and 80<sup>th</sup> percentiles occurred at a prevalence of 0.00637 (0.64%), 0.0117 (1.2%), and 0.0125 (1.3%), respectively, while by biopsy the 80<sup>th</sup> percentile was at a prevalence of 0.0074 (0.74%) (Table 37; Figure 26, 27). Categorizing the studies by screening test and age group reduced the variability somewhat, but significant between study variation persisted. There were not enough studies to divide an analysis by screening test, age group, and country, simultaneously.

Among the studies conducted in the US,<sup>206-208</sup> the prevalence ranged from 0.00312 (0.312% or 1:320—only child population in this group) to 0.00949 (0.949% or 1:105). The largest of these, by Fasano et al.,<sup>322</sup> found a prevalence of CD in “not at risk” populations to be 0.95% in adults, 0.31% in children, and 0.75% overall (0.0075 or 1:133). This study included a predominately Caucasian population, although other ethnic groups were included (94% white; 3% black; 1.5% hispanic; 1% asian; 0.5% other). Not et al.<sup>208</sup> found the prevalence by EMA confirmation of initial AGA testing to be 0.004 (0.4% or 1:250) in another predominately Caucasian population that also included other ethnic backgrounds (Caucasian [87%], African-American [11.5%], and Asian [1.5%]). Finally, Green et al.<sup>207</sup> found a prevalence of 0.005 (0.5% or 1:200) in 1,749 patients undergoing upper endoscopy. The reason for the initial endoscopy in this study was not clearly described, and only those patients with endoscopic features suggestive of CD were biopsied, which may have underestimated the true prevalence of CD. The prevalence of CD among the six Italian studies was similar to that seen in the American studies, showing a range from 0.2% to 0.86%.<sup>126,221,223-225,230</sup> The prevalence of CD in other countries is presented in Table 35.

Only four studies demonstrated a prevalence of CD of greater than 0.015 (1.5%) (UK,<sup>323</sup> Sweden,<sup>209,219</sup> Germany<sup>234</sup>), and an additional six showed a prevalence of between 0.010 (1.0%) and 0.015 (1.5%) (UK,<sup>228</sup> Sweden,<sup>216</sup> Netherlands,<sup>232</sup> Ireland,<sup>229</sup> Finland<sup>214,215</sup>). These studies would suggest a potentially higher prevalence of CD in these countries, though it should be kept in mind that other studies from these same countries showed a prevalence of less than 1.0%, including four studies from Sweden<sup>211,213,216,217</sup> (Figure 28). Only three of the eight studies conducted in a child population demonstrated a prevalence of CD of greater than 1.0% (Finland,<sup>215</sup> Sweden,<sup>209</sup> Netherlands<sup>232</sup>).

Among the 30 included studies, there was a considerable amount of variation in the point estimates for the prevalence of CD both by serology and by biopsy due to differences in serological test strategies, biopsy definitions and patient sampling, making pooled estimates unreliable. To further explore the potential sources of variability in the observed prevalence of CD, we plotted the studies’ prevalence versus its sample size (Figure 29). This scatter diagram visually illustrates the distribution of the prevalence of CD among the included studies. The study with the highest reported prevalence of CD (2.67%), was also the one with the smallest sample size of 150 healthy patients, and also included several other at-risk groups, which were the primary focus of that study.<sup>234</sup> Overall, studies with the smallest sample sizes tended to produce both the highest and lowest prevalence of CD. Using an arbitrary cut-off of 1,600 patients to divide “small” and “large” sample size studies, the prevalence by serology ranged fairly evenly from 0.17% to 2.67% for the 13 small studies, while 12 of the 18 large studies were located within a range of 0.5% to 1.26% (one study did not provide prevalence by serology).

**Table 35: Prevalence of CD by country**

Author, year	Country	Age group	Test	Total patients	Prevalence by serology	Prevalence by biopsy	Notes
Fasano, 2003	USA	Adults	EMA - ME; all positive EMA tested with tTG-HU	2,845	0.00949		116/350 biopsied
Green, 2000	USA	Adults	EGD/biopsy	1,749		0.00515	Not all systematically biopsied; only those with suggestive endoscopic features
Not, 1998	USA	Adults	IgG- and IgA-AGA - ELISA; confirmed with IgA-EMA ME or HU	2,000	0.00400		
Fasano, 2003	USA	Children		1,281	0.00312		
Johnston, 1998	UK	Adults	IgA-AGA, IgA-EMA	1,823	0.00823		
Sanders, 2003	UK	Adults	IgG- and IgA - ELISA; EMA-ME	1,200	0.01917	0.01000	22/23 biopsied
West, 2003	U.K.	Adults	IgA EMA-ME, IgA-tTGA	7,527	0.01156		
Rutz, 2002	Switzerland	Children	IgA-EMA-ME, IgA-tTG, IgG-AGA and IgA-AGA	1,450	0.00759	0.00690	10/11 biopsied
Borch, 2001	Sweden	Adults	Biopsy, IgA- and IgG-AGA; IgA-EMA-ME	482	0.01452	0.01867	
Grodzinsky, 1996	Sweden	Adults	IgA-AGA; IgA-EMA	1,866	0.00589	0.00375	Prevalence by IgA-EMA not reported
Ivarsson, 1999	Sweden	Adults	IgA- and IgG-AGA - ELISA, cut-off not recorded; IgA-EMA - ME; serum IgA level	1,894	0.00475	0.00475	
Sjoberg, 1994	Sweden	Adults	IgG- and IgA-AGA	1,537	0.01431	0.00065	13/22 biopsied
Sjoberg, 1999	Sweden	Adults	IgA-AGA, IgA confirmed with EMA-ME	1970	0.00152	0.00152	

EGD=esophagogastroduodenoscopy; IF=immunofluorescence; prevalence expressed as proportion (multiply by 100 for percent, or 100,000 for per 100,000 value)

**Table 35 (cont'd): Prevalence of CD by country**

Author, year	Country	Age group	Test	Total patients	Prevalence by serology	Prevalence by biopsy	Notes
Carlsson, 2001	Sweden	Children	AGA, EMA, biopsy using Watson capsule	690	0.01884	0.01594	
Riestra, 2000	Spain	Adults	IgG/IgA-AGA, IgA-EMA; the study was conducted as a 1) two-step protocol (determination of IgA/IgG-AGA, if positive measuring IgA-EMA); and a 2) one-step protocol (measuring IgA-EMA)	1,170	0.00171	0.00256	1 CD picked up when AGA and EMA was neg.
Corazza, 1997	Republic of San Marino	Adults	IgA-EMA; biopsy	559	0.00179	0.00179	
Hovdenak, 1999	Norway	Adults	IgA- and IgG-AGA; IgA-EMA	2,069	0.00387	0.00338	
Rostami, 1999	Netherlands	Adults	IgA-EMA	1,000	0.00300	0.00300	
Csizmadia, 1999	Netherlands	Children	IgA-EMA	6,127	0.01224	0.00506	57/75 biopsied
Pittschieler, 1996	Italy	Adults	IgA- and IgG-AGA; IgA-EMA; biopsy	4,615	0.00195	0.00195	38 of 140 biopsied
Trevisiol, 1999	Italy	Adults	IgA-EMA; biopsy	4,000	0.00250	0.00250	
Volta, 2001	Italy	Adults (mostly)	IgA-EMA-HU; biopsy	3,483	0.00574	0.00488	Prevalence of 0.57% (20/3483) if included 3 patients with normal villous but with increased IELs
Catassi, 2000	Italy	Children	IgG-AGA (7 AU); IgA-AGA (15 AU); IgA-EMA indirect IF (1:5 dilution); biopsy	2,096	0.00859		
Catassi, 1996	Italy	Children	IgA- or IgG-AGA; confirmed with EMA and biopsy	17,201	0.00645	0.00477	

EGD=esophagogastroduodenoscopy; IF=immunofluorescence; prevalence expressed as proportion (multiply by 100 for percent, or 100,000 for per 100,000 value)

**Table 35 (cont'd): Prevalence of CD by country**

Author, year	Country	Age group	Test	Total patients	Prevalence by serology	Prevalence by biopsy	Notes
Di Pietralata, 1992	Italy	Children	IgA-AGA; biopsy	3,022	0.00629	0.00596	
Dickey, 1992	Ireland	Adults	IgA AGA	443	0.01129		
Jager, 2001	Germany	Mixed - mostly adults	IgA-AGA, IgG-AGA, IgA-tTG -	150	0.02667		Mixed group of at-risk populations, healthy group used
Kolho, 1998	Finland	Adults	EMA -HU	1,070	0.01028	0.00748	
Maki, 2004	Finland	Children	IgA and IgG tTG; IgA and IgG EMA - IF; total serum IgA; HLA DR, DQ2 and DQ8	3,654	0.01259	0.00739	
Collin, 2002	Finland	Mixed - mostly adults	Biopsy	2,974	0.00605		
Weile, 2001	Denmark and Sweden	Adults	Serum IgA: IgG-AGA; IgA-AGA, cut-off >40 units; EMA; in cases of IgA <0.07g/L, IgG-AGA was analyzed	1,573	0.00254		
EGD=esophagogastroduodenoscopy; IF=immunofluorescence; prevalence expressed as proportion (multiply by 100 for percent, or 100,000 for per 100,000 value)							

**Table 36: Prevalence of CD by serological screening test**

Screening test	Age group	Number of studies	Total patients	Prevalence range
Primary biopsy	Adults	2 <sup>207,210</sup>	4,723	0.00515 - 0.00605
IgA AGA	Overall	2 <sup>223,229</sup>	3,465	0.00629 - 0.01129
	Adults	1 <sup>229</sup>	443	0.01129
	Children	1 <sup>223</sup>	3,022	0.00629
IgA / IgG AGA	Adults	1 <sup>216</sup>	1,537	0.01431
IgA AGA - IGA EMA	Overall	6 <sup>208,209,211,217,219,226</sup>	8,831	0.00152 - 0.01884
	Adults	5 <sup>208,209,211,217,219</sup>	6,999	0.00152 - 0.01884
	Children	1 <sup>321</sup>	1,823	0.00823
IgA/IgG AGA – IgA EMA	Overall	7 <sup>212,213,218,220,221,224,227</sup>	30,648	0.00195 - 0.01917
	Adults	5 <sup>212,213,218,224,227</sup>	11,351	0.00195 - 0.01917
	Children (Italy)	2 <sup>220,221</sup>	19,297	0.00645 - 0.00859
IgA/IgG AGA – IgA tTG	Mostly adults (Germany)	1 <sup>234</sup>	150	0.02667
IgA EMA	Overall	7 <sup>126,214,222,225,230-232</sup>	17,409	0.00171 – 0.01224
	Adults	7 <sup>126,214,222,225,230,231</sup>		0.00171 – 0.01028
	Children (Netherlands)	1 <sup>232</sup>	6,127	0.01224
IgA EMA – IgG tTG	Overall	4 <sup>206,215,228,233</sup>	16,757	0.00312 - 0.01259
	Adults (USA, UK)	2 <sup>206,228</sup>	10,372	0.00949 - 0.01156
	Children	3 (includes Fasano Child Group) <sup>206,215,233</sup>	6,385	0.00312 - 0.01259

Note: Country of study was indicated when possible; prevalence expressed as proportion (multiply by 100 for percent, or 100,000 for per 100,000 value)

**Table 37: Prevalence of CD by statistical percentiles**

Percentiles	Serology	Biopsy
5	.0016255	.0007378
10	.0018050	.0015761
25	.0030919	.0025321
50	.0063702	.0047672
60	.0084439	.0050768
75	.0117290	.0071429
80	.0125193	.0074416
90	.0184088	.0147536
95	.0225417	.0183992
100	.0266667	.0186722
Minimum	.00152	.00065
Maximum	.02667	.01867

Prevalence expressed as proportion (multiply by 100 for percent, or 100,000 for per 100,000 value)

**Figure 26: Frequency distribution of prevalence of CD by serology among included studies**

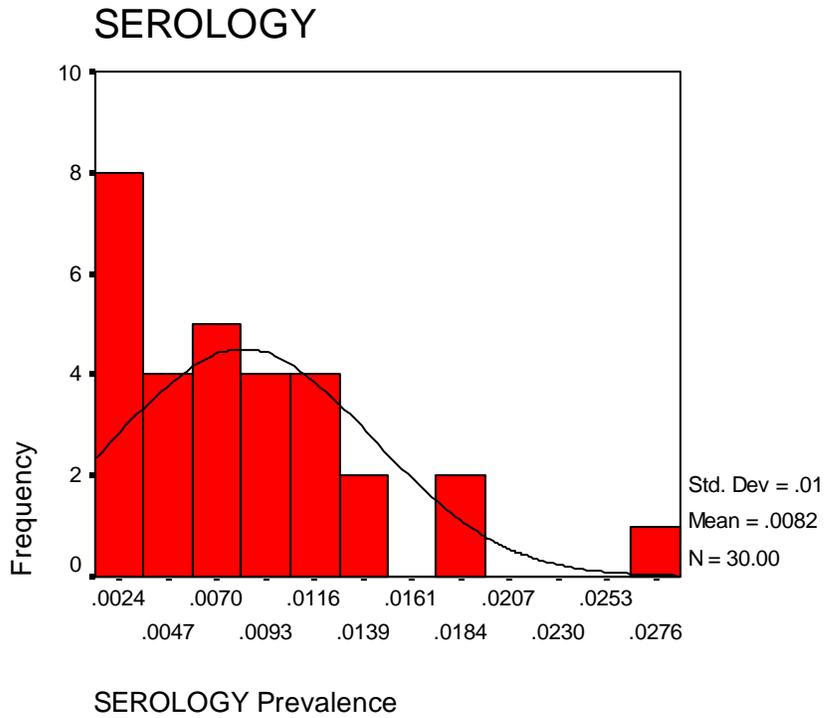


Figure 27: Frequency distribution of prevalence of CD by biopsy among included studies

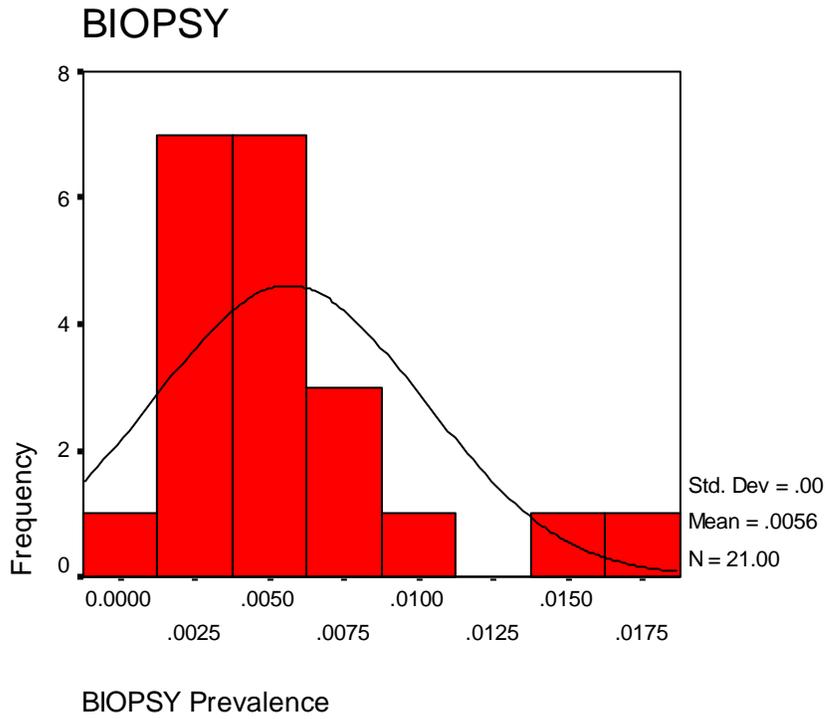
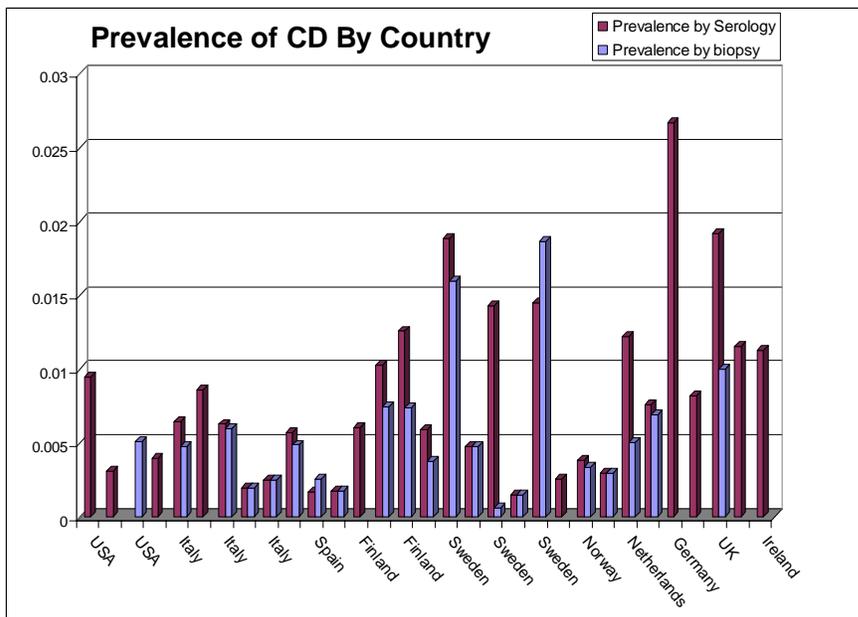
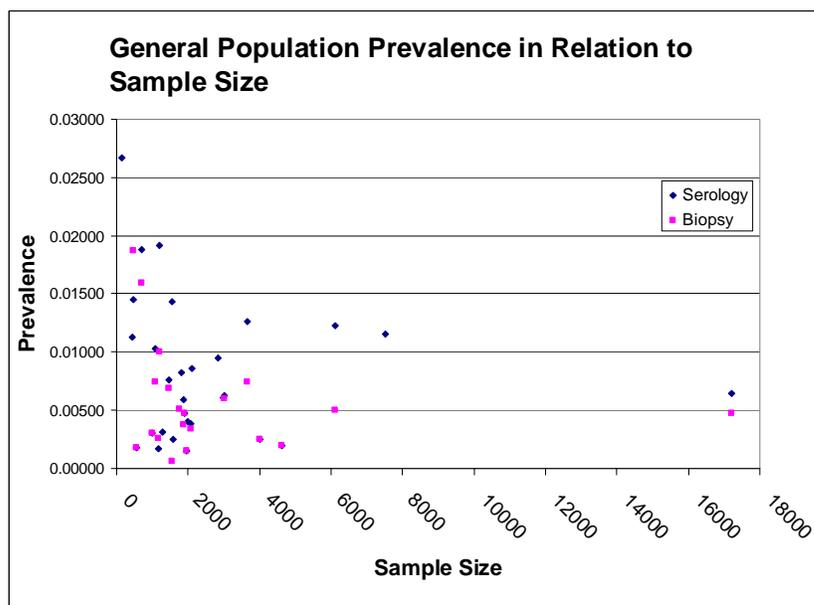


Figure 28: Prevalence of CD by country



**Figure 29: General population prevalence in relation to sample size**



## Prevalence of CD in Patients with Suspected CD

**Adults:** The prevalence of CD in adults suspected of the diagnosis was reported in four studies (Evidence Table 5, Appendix I; Table 38); three from Italy,<sup>300,301,303</sup> and one from the US.<sup>206</sup> The following reasons for suspecting a diagnosis of CD were documented: anemia, persistent iron deficiency, bowel disturbances, chronic intermittent diarrhea, abdominal pain, constipation, dyspepsia, severe malabsorption, tiredness and weight loss, mineral metabolism deficiencies, osteoporosis, arthralgias, arthritis, dermatitis, hypertransaminasemia, type I diabetes mellitus, infertility, and gluten intolerance in childhood not further investigated.

All three Italian studies were from referral centers, and intestinal biopsies were performed on all suspected cases, which cumulated to 347. The prevalence of CD was very high in these series, i.e., 43%,<sup>300</sup> 50%,<sup>301</sup> and 12%.<sup>303</sup>

In a large study of prevalence of CD in at-risk and not-at-risk individuals in the US, a total of 1,910 adults with CD-associated symptoms or disorders underwent serological testing with EMA. Fifteen of the 28 EMA-positive subjects (53.6%) consented to a biopsy, which was confirmatory in all cases.<sup>206</sup> The source of these patients and their mode of recruitment/referral were not reported. Based on the EMA result, the prevalence of CD in these adults with suspected CD was 1.5%.

**Children:** The prevalence of CD in children suspected of the diagnosis was reported in nine studies (Table 38); three from Canada,<sup>304,305,307</sup> two from the US,<sup>206,324</sup> and one each from Denmark,<sup>302</sup> England,<sup>308</sup> Italy,<sup>309</sup> and New Zealand.<sup>306</sup> The following reasons for suspecting a diagnosis of CD were documented: abdominal pain,<sup>238,304,305,307,309</sup> diarrhea,<sup>238,304,305,308</sup> failure to thrive/short stature,<sup>206,238,304-306,309</sup> weight loss,<sup>305</sup> vomiting,<sup>304,305</sup> abdominal distension,<sup>304,305</sup>

chronic GI symptoms,<sup>306</sup> inflammatory bowel disease,<sup>304</sup> family history of CD,<sup>238,304,306,309</sup> type I diabetes mellitus,<sup>206,238,306</sup> iron deficiency anemia (IDA),<sup>309</sup> thyroid disease,<sup>304</sup> trisomy 21,<sup>206,304,309</sup> as well as enamel hypoplasia, recurrent aphthous stomatitis, autoimmune diseases, IgA deficiency, and occult hypertransaminasemia.<sup>309</sup>

Five of the eight studies came out of referral centers where all suspected cases (cumulating to 978) were biopsied.<sup>302,304-306,308</sup> The prevalence of CD in these children ranged from 4.6%<sup>306</sup> to 17%.<sup>305</sup>

In a case-finding study among 26 family pediatricians in Italy, 240 children were screened with EMA based on the presence of risk factors, and 18 diagnoses of biopsy-proven CD were made, resulting in a prevalence of 7.5%.<sup>309</sup>

Three studies, two American<sup>206,238</sup> and one Canadian,<sup>307</sup> reported the prevalence of CD in children with related symptoms or conditions based on EMA testing. The cumulative number of children was 2,426, and the prevalence ranged from 1.1% in the Canadian study of children with chronic abdominal pain,<sup>307</sup> to 4.0% in the large American study of CD prevalence in at-risk and not-at-risk populations.<sup>206</sup>

**All ages:** Hin et al., performed a case-finding study through nine primary care clinics of central England that served a total population of 70,000 (Table 38).<sup>299</sup> A thousand patients were enrolled for serological screening, satisfying the following entry criteria: irritable bowel syndrome, anemia, family history of CD, malabsorption symptoms, diarrhea, fatigue, thyroid disease, diabetes mellitus, weight loss, short stature, failure to thrive, epilepsy, infertility, arthralgia, or eczema. The mean age of the screened subjects was 42.8 years; 5.3% were aged under 10, and 3.1% were aged 80 to 90 years. Thirty patients were EMA-positive, all of whom were confirmed by biopsy to have some enteropathy (90% had subtotal or total villous atrophy), and only one out of 30 patients had only IELs in the absence of villous atrophy. The mean age of the 30 cases with CD was 42.8 years, and there was only one child diagnosed with CD. The prevalence of CD was 3.0%.

**Table 38: Included studies for prevalence of CD in patients with suspected CD**

Study, year; country	Clinical setting	Age group	Dx criteria	N tested	Prevalence (%)
Bardella, 1991; Italy	Referral center	Adults	Biopsy	60	43.3
Bardella, 2001; Italy	Referral center	Adults	Biopsy	80	50.0
Carrocio, 2002; Italy	Referral center	Adults	Biopsy	207	11.6
Fasano, 2003; USA	Not reported	Adults	EMA	1,910	1.5
Bode, 1993; Denmark	Referral center	Children	Biopsy	191	7.3
Day, 2000; New Zealand	Referral center	Children	Biopsy	153	4.6
Thomas, 1992; England	Referral center	Children	Biopsy	381	7.9
Chan, 2001; Canada	Referral center	Children	Biopsy	77	13.0
Chartrand, 1997; Canada	Referral center	Children	Biopsy	176	17.0
Ventura, 2001; Italy	Community pediatricians	Children	Biopsy	240	7.5
Fitzpatrick, 2001; Canada	Community pediatricians	Children	EMA	92	1.1
Fasano, 2003; USA	Not reported	Children	EMA	1,326	4.0
Hill, 2000; USA	Referral center	Children	EMA	1,008	2.5
Hin, 1999; England	Community practice	All ages	Biopsy	1,000	3.0

## Prevalence of CD in with Type I Diabetes

The literature search identified 36 studies that assessed the prevalence of CD in patients with type I diabetes (insulin-dependent diabetes mellitus [IDDM]).<sup>191,192,234,250-282</sup> Two sets of duplicate publications were identified.<sup>191,192,277,282</sup> The publications with the most complete data sets were used.<sup>277,282</sup> Of the 34 unique studies (Evidence Table 6, Appendix I; Table 39), seven were conducted in an adult population,<sup>257,263,266,270,273,277,279</sup> 21 in a child population,<sup>250-252,254-256,260-262,264,265,267,271,272,274-276,278,280-282</sup> and six were conducted in a mixed population of adults and children.<sup>234,253,258,259,268,269</sup>

All the included studies initially screened the study population with one or more antibodies. Three studies did not confirm positive serology with biopsy,<sup>265-267</sup> whereas in nine studies confirmatory biopsies were performed in less than 75% of the screened-positive patients.<sup>253,259,264,269,272,274,277-279</sup> These studies were not included in the pooled estimates of the prevalence of CD by biopsy. All the studies that reported biopsy criteria used partial villous atrophy or greater to define CD.

For all the included studies, the minimum prevalence of CD in IDDM by serology was 1% and the maximum was 12%. By biopsy, the minimum and maximum prevalence was 1% and 11%, respectively. Within a given study, the prevalence by serology was almost uniformly greater than the prevalence by biopsy, as would be expected. Table 39 (individual studies) and Table 40 (pooled summaries) list the study details, the individual study estimates of CD prevalence and the pooled estimates of prevalence when appropriate.

The prevalence of CD in adults was assessed in seven studies.<sup>257,263,266,270,273,277,279</sup> Six of these studies used IgA EMA as the screening test,<sup>257,263,266,270,273,279</sup> whereas the largest study used IgA- and IgG-AGA, followed by EMA for confirmation.<sup>277</sup> In this last study, EMA confirmation was positive in 22 of the initially screened sample of 848 patients (2.6%), but biopsy confirmation was only performed in 14 of these patients, making the estimate of 0.83% prevalence by biopsy unreliable. The second largest study (n=509) did not confirm the EMA-positive patients with biopsy, and demonstrated the lowest prevalence of CD by EMA (1.4%) of all of the studies.<sup>266</sup> In another study of 185 patients,<sup>279</sup> the prevalence of CD by EMA was 4.9%, but only five of nine screen-positive patients were biopsied, making the prevalence of 2.2% (4/185) by biopsy a likely underestimation since four of the five biopsied EMA-positive patients were diagnosed with CD. A small study of 62 patients used biopsy as the screening test and found the prevalence of CD to be 11.3%, which is the highest prevalence of the group.<sup>263</sup> The remaining studies had uniform biopsy confirmation.<sup>257,270,273</sup> In these studies the prevalence of CD by EMA ranged from 3.1% to 7.9%, and the prevalence of CD by biopsy ranged from 2.6% to 6.4%.

Twenty-one studies assessed the prevalence of CD in children with IDDM.<sup>250-252,254-256,260-262,264,265,267,271,272,274-276,278,280-282</sup> Six of these studies used IgA-AGA or -AGA in combination with either IgG-AGA or other antibody tests.<sup>254,256,267,271,274,276</sup> The largest study tested 776 children with AGA and ARA (reticulin antibodies), and found a prevalence of CD by serology of 9.8%.<sup>274</sup> However, only 35 of 76 serology-positive patients were biopsied, making the reported prevalence by biopsy of 2.5% a likely underestimation. A single study of 459 patients that used IgA-AGA as the screening test found the prevalence of CD by serology to be 4.1%, and the prevalence of CD by uniform biopsy confirmation to be 4.6%.<sup>276</sup> The second largest study (n=498) used a combination of IgA- and IgG-AGA, and found a prevalence of CD by serology of 6.0% and a prevalence of CD by biopsy of 3.2%.<sup>254</sup> Two other studies that used IgA and IgG-AGA<sup>271</sup> or paired IgA-AGA measurements,<sup>256</sup> found a very similar prevalence by serology of 10.7% and 8.5%, respectively, and a prevalence by biopsy of 3.95% and 2.8%, respectively. The last study in this group did not perform biopsy confirmation of the IgA- and IgG-AGA derived prevalence of 3.76%.<sup>267</sup>

Seven studies used IgA-EMA to screen for CD in children with IDDM.<sup>251,252,255,260,272,275,281</sup> One Hungarian study of 205 children demonstrated a relatively high prevalence by serology and biopsy of 11.7% and 8.3%, respectively,<sup>252</sup> whereas an Austrian study of 403 children demonstrated a relatively low prevalence by serology and biopsy of 3.0% and 1.5%, respectively.<sup>275</sup> A study by Rossi et al.<sup>272</sup> from the US demonstrated a prevalence of CD of 4.7%. The remaining studies demonstrated fairly consistent results, with the prevalence of CD by serology ranging from 5.5% to 7.8%, and the prevalence by biopsy ranging from 3.3% to 6.5%.<sup>251,255,260,281</sup>

Three studies used IgA-tTG either alone<sup>264</sup> or in combination with IgG-tTG.<sup>265,278</sup> IgA-tTG was used alone in a study of 503 children which demonstrated a prevalence by serology of 4.4%. Ten of the 23 serology-positive patients did not undergo biopsy confirmation, making the

reported prevalence of 1.7% a likely underestimation. Of the two studies that used IgA- and IgG-tTG, the first did not perform biopsy confirmation and reported a prevalence of CD by serology of 8.4%,<sup>265</sup> whereas, the other found a prevalence of CD by serology of 6.3%, and by biopsy of 2.9%, although only eight of 13 serology-positive patients underwent biopsy.<sup>278</sup>

Five studies used a combination of IgA-EMA and one or more other antibodies, to assess the prevalence of CD in children with IDDM.<sup>250,261,262,280,282</sup> In three studies, EMA was combined with AGA,<sup>250,261,280</sup> in one it was combined with tTG,<sup>262</sup> and in the one it was combined with AGA and tTG.<sup>282</sup> In one study, only the confirmed biopsy prevalence of 8.3% was reported.<sup>280</sup> Overall, this group reported prevalences by serology ranging from 5.0% to 9.6%, and by biopsy ranging from 3.7% to 8.6%.

The remaining six studies assessed the prevalence of CD in a mixed-age population of patients with IDDM.<sup>234,253,258,259,268,269</sup> One study of 1,785 patients found the prevalence of CD by IgA AGA to be 4.1%. In this study, only 49 of 73 screen-positive patients underwent biopsy confirmation, making the reported prevalence by biopsy of 0.73% an underestimation.<sup>269</sup> Another large study of 1,114 patients used IgA and IgG AGA as an initial screen of screen-positive patients, and then performed a second level screen with IgA EMA before moving on to biopsy.<sup>259</sup> The EMA confirmed prevalence of CD was 4.9%, whereas, the reported biopsy confirmed prevalence was a relatively high 5.7%. In this study, 78 of 121 initial AGA-positive patients underwent biopsy, suggesting that most of the EMA-positive patients were biopsied.

Among the two studies that used IgA EMA as the screening test in a mixed-age population, the prevalence of CD by serology was 2.3%<sup>258</sup> and 5.7%.<sup>268</sup> It was unclear in the first study how the final confirmed prevalence of CD of 0.75% was arrived at,<sup>258</sup> whereas, in the other study the uniformly confirmed biopsy prevalence was 5.7%.<sup>268</sup>

The final two studies assessed the prevalence of CD in a mixed-age population of diabetics using IgA-tTG.<sup>234,253</sup> The prevalence of CD by serology was fairly high in both these studies: 9.6%<sup>234</sup> and 11.5%.<sup>253</sup> The first study did not perform biopsy confirmation, whereas, in the last study only 20 of 98 screen-positive patients were biopsied, making the reported prevalence of CD by biopsy of 1.8% a likely underestimation.

Clinical heterogeneity existed for some subgroups of this analysis making an overall pooled estimate of the prevalence of CD in children and adults with IDDM not entirely possible. However, a summary table (Table 40) is provided which presents the data grouped by age group and screening test, and Figure 30 presents the prevalence of CD in diabetes by study size. For similar studies a weighted pooled prevalence is provided, and individual study data with annotation is presented for studies that could not be pooled.

**Table 39: Included studies of prevalence of CD in type I diabetes**

Author, year; country	Total patients	Age group	Screening test(s)	First serology	Confirmatory serology	Biopsy proven	Biopsy criteria & description	Prevalence by serology	Prevalence by biopsy	Notes
Li Voon Chong, 2002; UK	509	Adults	EMA	7	None	n/a	None done	0.0138	n/a	
Talal, 1997; USA	185	Adults	EMA	9	None	4	ESPGAN	0.0486	0.0216	Only 5/9 biopsied
Rossi, 1993	211	Children, some adults	EMA	10	None	3	ESPGAN	0.0474	0.0142	Only 3/10 biopsied
Kaukinen, 1999; Finland	62	Adults	EMA		None	7	ESPGAN	0.0000	0.1129	
Sjoberg, 1998; Germany	848	Adults	AGA - IgG or IgA; EMA	258	22	7	Marsh	0.0259	0.0083	Only 14/22 biopsied
Sategna-Guidetti, 1994; Italy	383	Adults	EMA	12	None	10	Roy-Choudhury	0.0313	0.0261	10/12 biopsied
Rensch, 1996; USA	47	Adults	EMA	3	None	3	Loss of villous architecture, crypt hyperplasia, and increased IELs	0.0638	0.0638	
Frazer-Reynolds, 1998; Canada	263	Children	EMA	17	None	12	Carey capsule; Marsh criteria;	0.0646	0.0456	17/19 biopsied
Gillett, 2001; Canada	233	Children	EMA or AGA	19	None	14	Not reported	0.0815	0.0601	18/19 biopsied
Hansen, 2001; Denmark	104	Children	EMA or tTG	10	None	9	Partial or total villous atrophy, crypt hyperplasia and IEL infiltration	0.0962	0.0865	9/10 biopsied
Saukkonen, 1996; Finland	776	Children	AGA or ARA	76	None	19	Not reported	0.0979	0.0245	Only 35/76 biopsied
Spiekerkoetter, 2002; Germany	205	Children	tTG IgA or IgG	13	None	6	Marsh	0.0634	0.0293	Only 8/13 biopsied

Note: Appendices and Evidence Tables are provided electronically at <http://www.ahrq.gov/clinic/tp/celiactp.htm>

**Table 39 (cont'd): Included studies of prevalence of CD in type I diabetes**

Author, year; country	Total patients	Age group	Screening test(s)	First serology	Confirmatory serology	Biopsy proven	Biopsy criteria & description	Prevalence by serology	Prevalence by biopsy	Notes
Arato, 2003; Hungary	205	Children	EMA	24	None	17	n/r	0.1171	0.0829	
Barera, 1991; Italy	498	Children	AGA IgA then if neg IgG AGA	30	None	16	Subtotal villous atrophy	0.0602	0.0321	22/30 biopsied
Barera, 2002; Italy	273	Children	EMA, second EMA	15	10	9	Marsh; type II or III lesion	0.0549	0.0330	
Valerio, 2002; Italy	383	Children	EMA or IgG AGA	n/r	None	32	ESPGAN	n/r	0.0836	
Carelo, 1996; Spain	141	Children	IgA AGA if positive on two occasions	12	None	4	Subtotal villous atrophy	0.0851	0.0284	
Roldan, 1998; Spain	177	Children	IgA, IgG AGA, (and known cases, and some tested with EMA)	19	None	7	ESPGAN	0.1073	0.0395	Mixed group diagnosed by different means
Juan, 1998; Spain	93	Children	EMA	7	None	6	ESPGAN	0.0753	0.0645	
Sigurs, 1993; Sweden	459	Children	AGA	19	None	21	Watson Capsule	0.0414	0.0458	18/19 biopsied included known CD
Agardh, 2001; Sweden	162	Children	AGA, EMA, or tTG IgG or IgA	8	8	6	As described by Carlsson et al. 1999, Pediatrics 103:1248	0.0494	0.0370	Only 6 of 8 biopsied
Acerini, 1998; UK	167	Children	EMA or AGA	11	None	8	ESPGAN	0.0659	0.0479	9/11 biopsied
De Block, 2001; Belgium	399	Mixed	EMA	9	None	3	No biopsy performed	0.0226	0.0075	Unclear how the 3 cases confirmed

**Table 39 (cont'd): Included studies of prevalence of CD in type I diabetes**

Author, year; country	Total patients	Age group	Screening test(s)	First serology	Confirmatory serology	Biopsy proven	Biopsy criteria & description	Prevalence by serology	Prevalence by biopsy	Notes
Jager, 2001	197	Mixed	tTG	19	None		n/r	0.0964		
De Vitis, 1996; Italy	1114	Mixed	IgA, IgG then IgA EMA	121	55.00	63	Marsh - "villous atrophy"	0.1086	0.0566	78/121 biopsied
Not, 2001; Italy	491	Mixed	EMA	28	None	28	Intestinal biopsy; Marsh's modified classification	0.0570	0.0570	
Bao, 1999; USA	847	Mixed	tTG	98	None	15	n/r	0.1157	0.0177	Only 20/98 biopsied
Kordonouri, 2000; Germany	520	Mixed - mostly children	tTG	23	None	9	Marsh criteria	0.0442	0.0173	10/23 not biopsied
Aktay, 2001; USA	218	Mixed - mostly children	EMA	17	None	10	Partial or total villous atrophy, inflammation in lamina propria with increased IELs, and hyperplasia of crypts; classified as partial or total villous atrophy	0.0780	0.0459	14/17 biopsied
Cronin, 1997; Ireland	101	Mixed - mostly adults	EMA	8	None	5	n/r	0.0792	0.0495	
Schober, 2000; Austria	403	Mixed - mostly children	EMA	12	None	6	Modified Marsh and Crowe; Watson-type capsule	0.0298	0.0149	11/12 biopsied
Lampasona, 1999; Italy	287	Mixed - mostly children	tTG IgA or IgG	24	None	n/a	No biopsy	0.0836	n/a	

**Table 39 (cont'd): Included studies of prevalence of CD in type I diabetes**

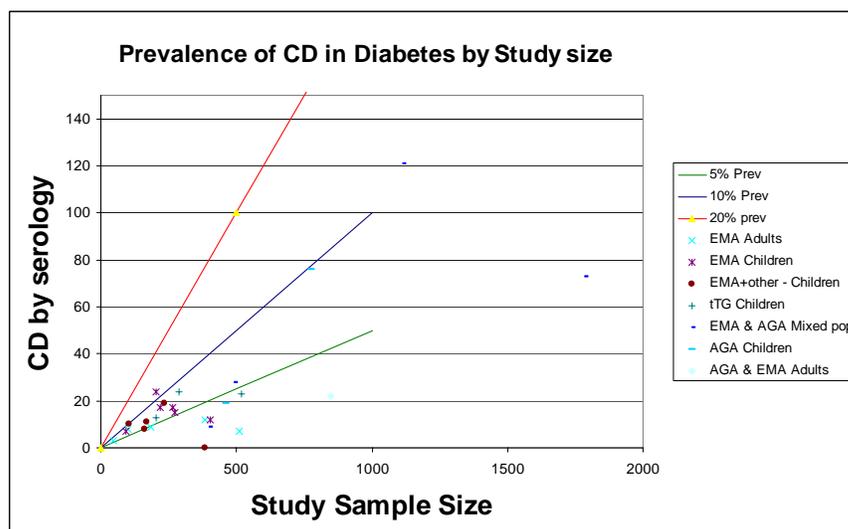
<b>Author, year; country</b>	<b>Total patients</b>	<b>Age group</b>	<b>Screening test(s)</b>	<b>First serology</b>	<b>Confirmatory serology</b>	<b>Biopsy proven</b>	<b>Biopsy criteria &amp; description</b>	<b>Prevalence by serology</b>	<b>Prevalence by biopsy</b>	<b>Notes</b>
Lorini, 1996; Italy	133	Mixed - mostly children	AGA IgA or IgG	5	None	n/a	No biopsy	0.0376	n/a	
Page, 1994; Mixed	1785	n/a	AGA	73	None	13	n/a	0.0409	0.0073	Only 49/73 biopsied

**Table 40: Summary of prevalence of CD in type I diabetes by age groups and screening test**

Number of studies	Total patients	Age group	Screening test(s)	Prevalence by serology	Prevalence by biopsy
1 <sup>277</sup>	848	Adults	AGA - IgG or IgA; then EMA	0.0259	0.0083*
1 <sup>266</sup>	509	Adults	EMA	0.0138	n/a
1 <sup>279</sup>	185	Adults	EMA	0.0486	0.0216*
1 <sup>263</sup>	62	Adults	EMA	n/a	0.1129
3 <sup>257,270,273</sup>	531	Adults	EMA	0.0433	0.0339
1 <sup>274</sup>	776	Children	AGA or ARA	0.0979	0.0245*
1 <sup>276</sup>	459	Children	AGA	0.0414	0.0458
4 <sup>254,256,267,271</sup>	949	Children	AGA – various combinations	0.0695	0.0331
1 <sup>252</sup>	205	Children	EMA	0.1171	0.0829
1 <sup>275</sup>	403	Children	EMA	0.0298	0.0149
5 <sup>251,255,260,272,281</sup>	1058	Children	EMA	0.0624	0.0437
4 <sup>251,255,260,281</sup>	847	Children	EMA	0.0661	0.0437
5 <sup>250,261,262,280,282</sup>	1049	Children	EMA - combinations	0.0721	0.0658
1 <sup>265</sup>	287	Children	tTG IgA with IgG	0.0836	n/a
1 <sup>278</sup>	205	Children	tTG IgA with IgG	0.0634	0.0293*
1 <sup>264</sup>	520	Children	tTG	0.0442	0.0173*
1 <sup>269</sup>	1785	Mixed	AGA	0.0409	0.0073*
1 <sup>259</sup>	1114	Mixed	IgA, IgG-AGA then IgA-EMA	0.0494	0.0566*
1 <sup>268</sup>	491	Mixed	EMA	0.0570	0.0570
1 <sup>258</sup>	399	Mixed	EMA	0.0226	0.0075 <sup>†</sup>
1 <sup>234</sup>	197	Mixed	tTG	0.0964	n/a
1 <sup>253</sup>	847	Mixed	tTG	0.1157	0.0177*

\*large proportion of serology-positive patients not biopsied, <sup>253,259,264,269,272,274,277-279</sup> these were not included in the pooled analysis of prevalence by biopsy  
\*\*no description of how diagnosis made – result not pooled

**Figure 30: Prevalence of CD in diabetes by study size**



## Prevalence of CD in Relatives of Patients with CD

There were 18 studies on the risk of CD in first-degree relatives of patients with biopsy-proven CD,<sup>129,167,206,235-249</sup> four of which also provided data on the risk of CD in second-degree relatives (Evidence Table 7, Appendix I; Table 41).<sup>206,235,238,239</sup>

**First-degree relatives:** First-degree relatives were directly evaluated with small bowel biopsy in five studies; three were performed in England in the 1970's,<sup>242,243,245</sup> and two in Finland during the 1990's.<sup>129,167</sup> The biopsy criteria for a diagnosis of CD was not reported in one study,<sup>243</sup> and implied at least some degree of villous atrophy in the other four.<sup>129,167,242,325</sup> The percent of all at-risk family members that were studied varied from 34%<sup>245</sup> to 100%.<sup>243</sup> The study size varied between 29<sup>242</sup> and 182,<sup>245</sup> and the cumulative number of patients tested was 494. The prevalence of CD among first-degree relatives undergoing intestinal biopsy varied from 5.5%<sup>243</sup> to 22.5%;<sup>245</sup> the pooled prevalence was 16%.

Serological screening of the first-degree relatives of patients with biopsy-proven CD was performed in 12 studies.<sup>206,235-237,239-241,244,246-249</sup> In seven of those studies, intestinal biopsy was performed on at least 80% of the subjects who tested positive serologically, i.e., in 84 % of subjects in one study,<sup>237</sup> and in 100% of subjects in the other six studies.<sup>236,239,244,247-249</sup> Serological screening was performed with AGA alone in one study,<sup>236</sup> whereas, the other six studies used EMA, either alone<sup>239</sup> or in combination.<sup>237,244,247-249</sup> Six studies used criteria implying some degree of villous atrophy,<sup>236,237,239,244,247,248</sup> whereas, one study included cases with Marsh I changes.<sup>249</sup> The study size varied from 92<sup>248</sup> to 943<sup>239</sup> subjects, for a cumulative number of 2,607 subjects. For the studies that required some degree of villous atrophy for diagnosis, the prevalence varied from 4%<sup>236</sup> to 12%,<sup>248</sup> and the mean prevalence was 7.6%.

However, when Marsh I lesions were also considered diagnostic, the prevalence of CD among first-degree relatives was reported at 44.1%.<sup>249</sup>

In five other studies of first-degree relatives,<sup>206,235,240,241,246</sup> confirmatory biopsy was not routinely performed (available in 9%<sup>246</sup> to 58%<sup>241</sup> of the cases), and the reported prevalence of CD was based on the serology results. EMA was used for serological screening in all of these studies, either alone,<sup>206,240</sup> or in combination with AGA<sup>241,246</sup> or tTG.<sup>235</sup>

Two of these studies were performed in families where at least two index cases prevailed and are, therefore, reviewed separately.<sup>235,241</sup> Ninety percent of the at-risk populations from these two studies were tested, which represents a cumulative number of 629 subjects. The prevalence of CD among these first-degree relatives from families where there are at least two index cases of known CD or dermatitis herpetiformis (DH) was 9.4%<sup>241</sup> and 17.2%.<sup>235</sup>

The study size of the other three studies varied from 115<sup>240</sup> to 4,508,<sup>206</sup> and the cumulative number of first-degree relatives tested was 5,265. The prevalence of CD among these serology-tested first-degree relatives varied between 2.8%<sup>246</sup> and 4.5%<sup>206</sup> (mean prevalence 4.3%).

**Other relatives:** One study from the US<sup>238</sup> reported an EMA-based prevalence of 4.7% in 192 first- and second-degree relatives; the prevalence from each of the groups of relatives was not reported separately.

An American study by Book et al.<sup>235</sup> studied the prevalence of CD in second-degree relatives and first cousins of CD sibling pairs (i.e., families with two affected index cases). Eighty-two second-degree relatives and 47 first cousins were tested with EMA and tTG, and the diagnosis was biopsy confirmed in 40% of the cases. The serology-based prevalence was 19.5% in second-degree relatives and 17.0% in first cousins.

Two other studies, one large (n=1,275) American study of prevalence of CD in at-risk and not-at-risk subjects,<sup>206</sup> and one Hungarian study,<sup>239</sup> provided data on the prevalence of CD in second-degree relatives. The EMA-based prevalence of CD in those groups was 2.6% and 5.5%, respectively (mean prevalence 2.7% on a cumulative number of 1,329 second-degree relatives).

**Table 41: Prevalence of CD in relatives of CD patients**

Study, year; country	Relative Type	Index case	Screening	Dx criteria	N tested	Prevalence (%)
Polvi, 1996; Finland	1 <sup>st</sup> degree	CD in family	Biopsy	ESPGAN	90	20
Holm, 1993; Finland	1 <sup>st</sup> degree	CD in family	Biopsy	Some VA	121	10.7
Robinson, 1971; England	1 <sup>st</sup> degree	CD child in family	Biopsy	Some VA	29	10.3
Rolles, 1974; England	1 <sup>st</sup> degree	CD child in family	Biopsy	Not reported	72	5.6
Stokes, 1976; England	1 <sup>st</sup> degree	CD in family	Biopsy	Some VA	182	22.5
Tursi, 2003; Italy	1 <sup>st</sup> degree	CD in family	Biopsy	Marsh I-IV	111	44.1
Corazza, 1992; Italy	1 <sup>st</sup> degree	CD adult in family	AGA	Some VA	328	4.0
Pittschieler, 2003; Italy	1 <sup>st</sup> degree	CD in family	EMA, TTG	Some VA	92	12.0
Rostami, 2000; Netherlands	1 <sup>st</sup> degree	CD in family	AGA, EMA, Hx	ESPGAN	338	10.9
Hogberg, 2003; Sweden	1 <sup>st</sup> degree	CD in family	AGA, EMA, TTG	Some VA	120	8.3
Korponay-Szabo, 1998; Hungary	1 <sup>st</sup> degree	CD in family	EMA	Some VA	943	9.1
Farre, 1999; Spain	1 <sup>st</sup> degree	CD in family	AGA, EMA	Some VA	675	5.6
Kotze, 2001; Brazil	1 <sup>st</sup> degree	CD in family	EMA	+ve serology*	115	3.5
Fasano, 2003; US	1 <sup>st</sup> degree	CD in family	EMA	+ve serology	4,508	4.5
Vitoria, 1994; Spain	1 <sup>st</sup> degree	CD in family	AGA, EMA	+ve serology	642	2.8
Mustalahti, 2002; Finland	1 <sup>st</sup> degree	>1 DH or CD sib	AGA, EMA	+ve serology	466	9.4
Book, 2003; US	1 <sup>st</sup> degree	CD sib pairs	EMA, TTG	+ve serology	163	17.2
Hill, 2000; US	1 <sup>st</sup> & 2 <sup>nd</sup> degree	CD in family	EMA	+ve serology	192	4.7
Fasano, 2003; US	2 <sup>nd</sup> degree	CD in family	EMA	+ve serology	1,275	2.6
Korponay-Szabo, 1998; Hungary	2 <sup>nd</sup> degree	CD in family	EMA	+ve serology	54	5.6
Book, 2003; US	2 <sup>nd</sup> degree	CD sib pairs	EMA, TTG	+ve serology	82	19.5
Book, 2003; US	1 <sup>st</sup> cousins	CD sib pairs	EMA, TTG	+ve serology	47	17.0
*EMA titre $\geq$ 1/5 VA = villous atrophy; DH = dermatitis herpetiformis						

## Prevalence of CD in Patients with IDA

Twelve studies were identified that allowed for the extraction of the prevalence of CD among patients who were evaluated for anemia (Evidence Table 8, Appendix I; Table 42).<sup>283-294</sup> In all of these, IDA was the primary focus of the study or made up the cause of anemia in the majority of the study patients. Tables 42 and 43 summarize the characteristics of the included studies.

Three studies assessed the prevalence of CD in IDA patients with GI symptoms.<sup>283,288,290</sup> The prevalence of CD in these studies ranged from 10.3% to 15% of the studied group. One small study assessed the prevalence of CD in a group of patients who had IDA but no identified GI source.<sup>286</sup> In this study, the prevalence of CD by AGA and confirmed by EMA was 30%.

In another study, the authors assessed the prevalence of CD in pre-menopausal women with IDA.<sup>293</sup> The overall prevalence of CD in this population was found to be 12.9% by tTG, and 8.5% after biopsy confirmation. CD was found in 1 of 22 (4.5%) of women with heavy periods, and 4 of 18 (22%) of women with normal menstrual flow.

Four studies assessed the prevalence of CD in asymptomatic IDA patients by serology.<sup>285,287,291,292</sup> Two of these used EMA screening,<sup>291,292</sup> whereas the other two initially screened with AGA and then confirmed with EMA.<sup>285,287</sup> The prevalence of CD in this group ranged from 2.3% to 5.0%. Another three studies assessed the prevalence of CD by biopsy in asymptomatic IDA patients, finding it to be between 2.9% and 6%.<sup>284,289,294</sup>

**Table 42: Included studies of CD in adult patients with anemia**

Author, year; country	No. of pts	Age group	Population	Anemia type	Screening test	First serology	Confirmatory serology	Bioscopy proven	Biopsy criteria	Prevalence by serology	Prevalence by biopsy
Akerman, 1996; Israel	93	Adult - some teens	Out-patients with IDA (50% symptomatic)	IDA	EGD/ biopsy			13	Subtotal or greater villous atrophy	n/a	0.139785
Annibale, 2001; Italy	71	Adults	Asymptomatic	IDA	EGD/ biopsy			4	Marsh	n/a	0.056338
Corazza, 1995; Italy	200	Adults	Referred to hematology	IDA	IgA/IgG-AGA then EMA then biopsy	16	10	10	Not mentioned	0.05	0.05
Dickey, 1997; UK	10	Adults	Asymptomatic, previously investigated no gross GI cause found	IDA	IgA AGA then EMA	4	3		Endoscopic biopsy; criteria n/r; finding of villous atrophy and IELs in duodenal biopsy	0.3	n/a
Howard, 2002; UK	258	Adults	IDA identified through lab	IDA, folate	IgA/IgG-AGA and EMA then biopsy	28		12	Not applicable	0.10852713	0.046512
Kepczyk, 1995; USA	39	Adults	Mostly symptomatic out-patients with IDA	IDA	EGD/ biopsy			4	Villous atrophy, crypt hyperplasia, inflammatory infiltrate	n/a	0.102564
McIntyre, 1993; UK	50	Adults	Out-patients with IDA	IDA	EGD/ biopsy			3	Not reported	n/a	0.06
24/28 biopsied											

**Table 42 (cont'd): Included studies of CD in adult patients with anemia**

Author, year; country	No. of pts	Age group	Population	Anemia type	Screening test	First serology	Confirmatory serology	Bioscopy proven	Bioscopy criteria	Prevalence by serology	Prevalence by bioscopy
Oxentenko, 2002; USA	113	Adults	Undergoing EGD for IDA	IDA	EGD/ biopsy			17	CD was defined as total or partial villous atrophy with IELs	Not applicable	0.150442
Ransford, 2002; UK	484	Adults	Referred to hematology	IDA	EMA then EGD/ biopsy	17		11	Revised ESPGAN; duodenal histologic changes were graded according to Marsh I-III	0.03512397	0.022727 <sup>†</sup>
Unsworth, 2000; UK	483	Adults	Blood donors	Anemia unspecified	IgA-EMA then biopsy	32		22	n/r	0.06625259	0.045549 <sup>‡</sup>
Annibale, 2003; Italy	59	Adult	Pre-menopausal women with IDA	IDA	IgA tTG then biopsy	7		5	Marsh	0.11864407	0.084746 <sup>**</sup>
Van Mook, 2001; The Netherlands	35	Adult	Asymptomatic	IDA	EGD / biopsy			1	Marsh I	Not applicable	0.028571

<sup>†</sup>5 Marsh I identified by CD3  
<sup>‡</sup>25/32 biopsied  
<sup>\*\*</sup>5/7 biopsied; 30 had heavy periods; CD in 1/22 with heavy periods, and 4/18 with normal periods

**Table 43: Summary of prevalence of CD in adult patients with anemia by population and screening test**

No. of studies	Total patients	Population	Screening test(s)	Prevalence by serology	Prevalence by biopsy
3 <sup>283,288,290</sup>	245	Symptomatic IDA	Biopsy	n/a	0.139
1 <sup>286</sup>	10	Asymptomatic, previously no gross GI cause found investigated	IgA-AGA then EMA	0.3	n/a
1 <sup>293</sup>	59	Pre-menopausal women with IDA	IgA-tTG then Biopsy	0.119	0.085
4 <sup>285,287,291,292</sup>	1,425	Asymptomatic serology screened	IgA-EMA, or-AGA followed by EMA; all biopsy confirmed	0.061	0.039
3 <sup>284,289,294</sup>	156	Asymptomatic biopsy screened	Biopsy	n/a	0.051

### Prevalence of CD in Patients with Low Bone Mineral Density (BMD)

Four articles were identified that assessed the prevalence of CD in patients with low BMD (Evidence Table 9, Appendix I).<sup>295-297,326</sup> The study characteristics and definitions used to define low BMD, osteopenia, and CD are presented in Table 44. Three of these studies determined BMD using dual energy X-ray absorptiometry (DXA), and defined osteoporosis as a BMD less than 2.5 standard deviations from the peak bone mass of sex-matched control,<sup>295,297,326</sup> whereas, the other used single photon absorptiometry (SPA).<sup>296</sup> One study included patients with non-traumatic fractures,<sup>295</sup> whereas, in the others, idiopathic osteoporosis was sufficient for inclusion. All four studies used serology screening with biopsy confirmation of screen-positive patients. Three studies relied on AGA testing as the initial screen<sup>295,296,326</sup> followed by biopsy,<sup>296</sup> or further confirmatory serology testing with EMA<sup>295</sup> or tTG<sup>326</sup> prior to biopsy. The final study screened with EMA-ME, with positive screens moving on to biopsy.<sup>297</sup> Two studies defined the biopsy criteria for CD and used a fairly standard but rigid requirement of subtotal or greater villous atrophy.<sup>295,297</sup>

In the studies that used this test as the initial screen, AGA was positive in 6% to 21% of the patients with osteoporosis. However, in these studies CD was confirmed by biopsy in only 0.9% to 3% of patients.<sup>295,296,326</sup> The study that used EMA-ME as a screening test identified potential CD cases in 7.3% of patients, but none of these met the authors' biopsy criteria for CD.<sup>297</sup>

**Table 44: Prevalence of CD in patients with low BMD**

<b>Author, year; country</b>	<b>Population</b>	<b>BMD definition</b>	<b>Test</b>	<b>Prevalence</b>
Lindh, 1992, Sweden	92 consecutive patients with idiopathic osteoporosis screened for CD; 91% F (mean age 66+-12 Y); and 9 M (mean age 50+-12 Y)	Bone mineral content by photon absorptiometry (SPA) of non-dominant forearm; criteria n/r	IgA-AGA ELISA; cut-off was 2 SD above the mean of blood donors; confirmatory biopsy in 6 - criteria n/r	11/92 (12.0%) AGA +ve.; 3% (3/92) biopsy confirmed Mean proximal SPA 0.97 g/cm <sup>2</sup> Mean distal SPA 0.67 g/cm <sup>2</sup>
Gonzalez, 2002; Argentina	127 postmenopausal women with osteoporosis; age (Y): mean 68, range 50-82; 747 controls; age (Y): mean 29, range 16-79	History of non-traumatic fractures and lumbar spine and/or femoral neck BMD below T-score -2.5 DXA	IgA and IgG-AGA ELISA; cut-off levels: for IgA - 15 AU/mL; for IgG - 20 AU/mL; positives confirmed with IgA-EMA-ME positive at 1:5 dilution; positives confirmed with biopsy in EMA positives; showing villous atrophy, crypt hyperplasia and IEL >30%	1/127, or 7.9 x 1000 (95% CI: 0.2-43.1); test positivity: AGA found in 8 of 127 (6.3%) pts on level 1; 1 of these 8 pts was EMA positive on the 2nd level and eligible for biopsy which established a diagnosis of CD in 1 (0.9%)
Mather, 2001; Canada	Idiopathic low BMD; mean age 57 Y; range 18-86 Y; 81.3% (78) F; 18.7% M (18) All osteopenic; 45/78 F and 13/18 M osteoporotic	DXA Osteopenia: BMD <1 SD of mean sex-matched peak BMD Osteoporosis: BMD <2.5 SD of mean sex-matched peak BMD	IgA- EMA-ME titers of ≥1:10; and biopsy confirmation based on subtotal or greater villous atrophy	7 (7.3%) of 96 pts were EMA +ve; all biopsies were negative based on subtotal or greater villous atrophy prevalence of 0%
Nuti, 2001; Italy	255 females with osteoporosis; mean age 66.6 Y range 36-65 Y	DXA BMD below T-score -2.5	IgA-AGA ELISA-cut-off level of 10 AU/mL-1; IgA-tTg cut-off >22 AU; confirmatory biopsy criteria n/r	53/255 (20.8%) +ve IgG-AGA; 24/53 +ve for tTG antibody (9.4%); intestinal biopsy in 10/24 resulted in 6 (2.4%) with confirmed CD

F=female; M-male; DXA=dual X-ray absorptiometry; Y=years; n/r=not recorded

## Quality Assessment

Using the cross-sectional checklist, the overall quality of reports of the included studies for the Celiac 2 objective, was marginal to fair (Appendix J, Table 2). For example, most of the studies did not report on whether the patients were consecutively enrolled, which could possibly lead to selection bias.

## Celiac 3: Risk of Lymphoma in CD

### Literature Search

Out of 379 references resulting from the literature search on CD and lymphoma, 150 were initially excluded because they did not directly address this topic (Appendix F). Of the 229 studies that were screened using full reports of the studies, 211 were excluded for the following reasons: review articles (n=73; 19.3% of level 2 articles); did not address the topic (n=33); assessed the risk of CD in lymphoma (n=28); were uncontrolled studies, including surveys (n=53); or, studied the basic mechanisms and the pathogenesis of lymphoma in CD (n=24).

The following eight exclusions were made from the 18 publications that reached level 3 (i.e., eligibility criteria): duplicate publications (n=7);<sup>127,327-332</sup> (for two of these reports,<sup>328,332</sup> patients originated from the same center [i.e., General Hospital, Birmingham]) and the reports were conducted during the same periods as other reports,<sup>329,330,333</sup> and we could not rule out that they were not similar series); data was not extractable (n=1).<sup>334</sup>

The nine controlled studies selected for data extraction were grouped as follows: eight cohort studies,<sup>333,335-341</sup> and one case-control study<sup>342</sup> (Evidence Table 10, Appendix I; Table 45). Mortality data from one controlled study in refractory CD is presented at the end of this section for reference.<sup>343</sup>

**Table 45: Included studies for risk of lymphoma in CD**

<b>Study, year; country, period</b>	<b>Study type</b>	<b>Participants</b>	<b>Risk of lymphoma</b>	<b>Mortality</b>	<b>Other observations</b>
Cottone, 1999; Sicily, 1980-97	Retrospective cohort	<ul style="list-style-type: none"> <li>• 228 CD patients</li> <li>• 76% females</li> <li>• mean age at Dx 34.7</li> <li>• 98% adult Dx</li> <li>• 100% on strict GFD</li> </ul>	<ul style="list-style-type: none"> <li>• Incidence NHL 3.1%</li> <li>• SIR NHL 3.75, p &lt;0.01</li> </ul>	SMR all causes 3.8 (1.9-6.7)	
Holmes, 1989; England, 1941-85	Prospective cohort	<ul style="list-style-type: none"> <li>• 210 CD patients</li> <li>• 55% females</li> <li>• 51% on strict GFD</li> </ul>	<ul style="list-style-type: none"> <li>• Incidence NHL 4.3%</li> <li>• SIR NHL 42.7 (19.6-81.4)</li> </ul>	SMR not reported	SIR NHL vs GFD compliance: <ul style="list-style-type: none"> <li>• Strict GFD 44.4</li> <li>• Gluten diet 100</li> </ul>
Logan, 1989; Scotland, 1979-1986	Prospective cohort	<ul style="list-style-type: none"> <li>• 653 CD patients</li> <li>• 60% females</li> </ul>		Mortality from NHL 2.6% SMR from lymphoma 31 p<0.001 SMR all causes 1.9 (1.5-2.2)	SMR childhood Dx 1.4 (0.4-3.7) SMR adult dx 1.9 (1.5-2.3)
Askling, 2002; Sweden, 1964-94	Retrospective cohort	<ul style="list-style-type: none"> <li>• 11,019 CD patients</li> <li>• 59% females</li> <li>• Mean age at Dx 17.4 (range 0-&gt;70)</li> </ul>	<ul style="list-style-type: none"> <li>• Incidence NHL 0.34%</li> <li>• SIR NHL 6.3 (4.2-125)</li> </ul>	SMR from NHL 11.4 (7.8-16) SMR all causes 2 (1.8-2.1)	SIR NHL childhood Dx 1.9 (0.4-5.5) SIR NHL adult Dx 7.0 (5.0-9.5)
Collin, 1996; Finland, 1970-93	Prospective cohort	<ul style="list-style-type: none"> <li>• 383 CD patients</li> <li>• 73% females</li> <li>• Mean age at Dx 41.8 (range 16-78)</li> <li>• 75% on strict GFD</li> </ul>	<ul style="list-style-type: none"> <li>• Incidence NHL 0.26%</li> <li>• SIR NHL 2.66 (0.07-14.8)</li> </ul>		
Corrao, 2001; Italy, 1962-94	Prospective cohort	<ul style="list-style-type: none"> <li>• 1,072 CD patients</li> <li>• 76% females</li> <li>• mean age at Dx 35.7 (range 18-&gt;50)</li> <li>• 59% on strict GFD</li> </ul>		SMR from NHL: 69.3 (40.7-112.6) SMR all causes: 2.0 (1.5-2.7)	SMR age 18-29 at Dx: 2.5 (0.5-7.3) SMR age 30-49 at Dx: 2.4 (1.3-4.0) SMR age >50 at Dx: 1.9 (1.3-2.6)  SMR strict GFD: 0.5 (0.2-1.1) SMR unlikely GFD: 6.0 (4.0-8.8)
Green, 2003; USA, 1981-2000	Prospective cohort	<ul style="list-style-type: none"> <li>• 381 CD patients</li> <li>• 64% females</li> <li>• mean age at Dx 44 +/- 18</li> </ul>	<ul style="list-style-type: none"> <li>• Incidence NHL 1.3%</li> <li>• SIR NHL 6.2 (2.9-14)</li> </ul>		
Selby, 1979; Australia, 1959-78	Retrospective cohort	<ul style="list-style-type: none"> <li>• 93 CD patients</li> <li>• 67% females</li> <li>• mean age at Dx 40 (range 14-70)</li> </ul>	<ul style="list-style-type: none"> <li>• Incidence NHL 4.3%</li> <li>• SIR NHL 4.94, p&lt;.0005</li> </ul>		
Delco, 1999; USA, 1986-95	Case-control	<ul style="list-style-type: none"> <li>• 458 CD patients</li> <li>• 4% females</li> </ul>	<ul style="list-style-type: none"> <li>• OR NHL 4.53 (2.01-10.23)</li> </ul>		

Dx=diagnosis; SIR=standardized incidence ratio; NHL=non-Hodgkin's lymphoma; SMR=standardized mortality

## Measures of Risk

Eight out of nine studies were cohort studies, either prospective or retrospective. The standardized incidence ratio (SIR) was the most commonly reported measure of association; it was calculated as the incidence observed in the patient cohort divided by the expected incidence from the control population, along with a measure of precision (i.e., its 95% CI). The results were expressed either as SIRs of lymphoma or as the standardized mortality ratio (SMR) from lymphoma (SMR-NHL). The all-cause mortality was also reported in some studies.

It was not possible to pool these measures of risk, since SIRs by definition incorporate variables inherent to each population. The attributable risk (AR), was calculated whenever the incidence rates of NHL in CD patients and in the age-adjusted general population, were available.

## Study Characteristics

There were eight cohort studies (five prospective<sup>333,336,338-340</sup> and three retrospective<sup>335,337,341</sup>) and one case-control study.<sup>342</sup> Two studies were from Italy,<sup>335,339</sup> two from the UK,<sup>333,336</sup> two from Scandinavia,<sup>337,338</sup> two from the US,<sup>340,344</sup> and one from Australia.<sup>341</sup> The observation periods varied from 7 years<sup>336</sup> to 44 years (1941-85;<sup>333</sup>), and the mean duration of patient follow-up varied from 6 years<sup>335,339-341</sup> to 18.6 years.<sup>333</sup> Patients were either selected from a national patient register,<sup>336</sup> from hospital discharge databases,<sup>337,342</sup> or represented all consecutive cases from a single<sup>333,335,338,340,341</sup> or multiple<sup>339</sup> institution(s). The cohort sizes varied from 93<sup>341</sup> to 11019;<sup>337</sup> 55% to 76% of patients with CD were female, except for the study by Delco et al.,<sup>342</sup> which used discharge diagnoses databases from the US Veterans Affairs hospitals (4% female CD patients). The mean age at diagnosis of CD was reported in six studies: in four studies, the diagnosis of CD was made almost exclusively in adulthood.<sup>335,338,339,341</sup> The mode of presentation was reported in four studies.<sup>335,338,339,341</sup> Adherence to a GFD was reported in five studies,<sup>333,335,338,339,341</sup> and could be used in the analysis in three of them.<sup>333,338,339</sup> Control data for the cohort studies was derived from local and national mortality data and cancer registers.

## Types of Lymphomas

The total number of lymphomas diagnosed in each study and their histological type was not uniformly reported. Of the 84 lymphomas that were mentioned within these nine studies, 64 were referred to as “non-Hodgkin lymphoma (NHL)” not otherwise specified, one as “lymphoma,” nine as “enteropathy-associated T-cell lymphoma (ETCL),” five as “B cell lymphoma,” two as “large cell lymphoma,” one each as a “T-cell other than ETCL,” “lymphosarcoma” (currently classified as small cell lymphoma), and “histiocytic medullary reticulosis” (currently termed hairy-cell leukemia). Logan et al.<sup>336</sup> reported that they found “mostly lymphosarcomas (i.e., small-cell lymphomas) or reticulum-cell sarcomas (i.e., large-cell lymphomas) as well as two Hodgkin’s lymphomas,” whereas, the remaining authors systematically excluded Hodgkin’s lymphomas from their respective analyses.

## Incidence of Lymphoma and Related Mortality Data

The case definition of CD differed between the reports of institutional series and those derived from database analysis. The results will therefore be presented differently according to each of these two study designs.

**Institutional series:** By institutional studies, we mean reports on the evolution of cases consecutively diagnosed with CD and followed in one or several selected institution(s) over a specific period. Six out of the nine controlled studies were performed in that setting; in five out of six studies, the data originated from a single referral center.<sup>333,335,338,340,341</sup> The sixth study is the product of a collaborative effort between nine Italian centers.<sup>339</sup> In these studies, all cases were biopsy-proven CD.

Holmes et al., from Birmingham England, reported on a series of 210 biopsy-proven CD patients diagnosed and followed between 1941 and 1985.<sup>333</sup> This series was originally reported by Harris in 1967,<sup>329</sup> and reviewed in 1976<sup>330</sup> and in 1989<sup>333</sup> by Holmes. By this third publication, the authors had excluded all non biopsy-proven cases of CD, as well as the cases of cancer that arose either prior to or within 12 months of diagnosis of CD. The length of follow-up was of a minimum 13 years, 17.4 patient-years for men and 19.4 patient-years for women. Based on the original publication by Harris, we can assume that a large proportion of these patients (80% in Harris' series) were diagnosed with CD in adulthood. There were nine cases of NHL, compared with an expected 0.21, resulting in a SIR-NHL of 42.7 (95% CI: 19.6-81.4), which was the highest reported degree-of-risk for lymphoma among the controlled studies we identified.

Green et al.<sup>340</sup> prospectively followed 381 patients with biopsy-proven CD from New York City, most of whom were of European descent, and diagnosed between 1981 and 2000. The mean age at CD diagnosis was 44 +/- 18 years, and the duration of CD-related symptoms prior to diagnosis was 5 +/- 8 years. The mean follow-up was 6 +/- 11 years, for a total of 1,977 patient-years following the diagnosis of CD. There were a total of nine cases of NHL, occurring any time before or after the diagnosis of CD, leading to an attributable risk of NHL from CD of 120.2 cases per 100,000 patient years. The SIR-NHL, diagnosed at any time, was 9.1 (95% CI: 4.7-13), and the SIR-NHL for any lymphoma diagnosed at least one month after the diagnosis of CD was 6.2 (95% CI: 2.9-14).

Cottone et al.<sup>335</sup> reported on 228 patients with biopsy-proven CD and followed from 1980 to 1997, from a large referral center in Sicily. Ninety-eight percent of the patients had been diagnosed with CD during adulthood and the mean age at diagnosis was 34.7 years. The mean duration of follow-up was 6 years (range: 1 month to 17 years). No case of refractory CD was mentioned. There were seven cases of NHL, compared with an expected number of 1.824 (SIR-NHL of 3.75 (p<0.01)). The cumulative incidence of NHL was 3%, compared with an expected of 0.8%, leading to a risk difference or AR of 2.2%. The mean age at diagnosis of lymphoma was 59.4 years, and the mean time from the diagnosis of CD was 6.5 years. Lymphomas occurring prior to or within 6 months of CD diagnosis were excluded.

A large Italian multicenter study by Corrao et al.,<sup>339</sup> prospectively followed 1,072 patients with CD and spanned from 1962 to 1994, totaling 6,444 patient years. The mean follow-up was 6 years, and all patients were diagnosed with CD during adulthood (mean age at diagnosis of CD 35.7 years). The outcomes were strictly measured in terms of mortality data, i.e., mortality from NHL and from all causes. Events occurring at the time of CD diagnosis were included. There

were 16 instances of death from NHL. The SMR-NHL was 69.3 (95% CI: 40.7-112.6), whereas, the SMR of death from all cause (SMR-all cause) was 2.0 (95% CI: 1.5-2.7), showing that the risk of death from NHL in CD is disproportionately elevated.

Selby et al.<sup>341</sup> reported on a series of 93 patients with CD that were followed at a single institution in Australia between 1959 and 1978, for a mean duration of 6 years. Patients presented either during the teenage or adulthood, all were symptomatic at the time of diagnosis, and there were no refractory cases. There were four patients with NHL (simultaneous CD and lymphoma diagnosis included), compared with an expected of 0.081 (SIR-NHL 4.94,  $p < 0.0005$ ).

Collin et al.<sup>338</sup> reported on a prospective cohort of 383 patients with CD, diagnosed and followed at a single institution over the 1970-93 period, for a mean follow-up of 8.1 years (3,107 patient years in total). The mean age at diagnosis was advanced: 41.8 years, with a range of 16 to 78 years. Seventy-five percent of the patients adhered to a strict GFD and 82% of patients were symptomatic at the time of CD diagnosis. Simultaneous lymphoma and CD diagnoses were not excluded. There was a single case of lymphoma, compared with an expected 0.4 (SIR-NHL 2.66 [95% CI: 0.07-14.8]). As well, the 10- and 15-year survival of CD patients did not differ significantly from those of the general population.

**Large database and register series:** Logan et al.<sup>336</sup> reviewed the death certificates of CD patients belonging to a comprehensive register of CD patients that exists in Scotland since 1979, constituting a cohort of 653 CD patients gathered from 1979 to 1986. There were 17 deaths attributed to lymphoma, instead of an expected 0.55. Both Hodgkin and NHL were included, and so were those lymphomas occurring simultaneously to the diagnosis of CD. The SMR-lymphoma was 31 ( $p < 0.001$ ), which was disproportionately increased compared with the SMR-all causes, which was 1.9 (95% CI: 1.5-2.2).

Askling et al.<sup>337</sup> reported on the largest CD patient cohort ( $n=11,019$ ), gathered from a comprehensive Swedish database of hospital discharge diagnoses over 1964 to 1994. It was not possible to ascertain how the diagnosis of CD was made or confirmed. The mean age at diagnosis of CD was 17.4 (range 0 to  $>70$ ), and the mean follow-up was 9.8 years (range 0-32), for a total of 97,236 patient years. The ascertainment of outcome was achieved through the Swedish cancer register, as well as the register of causes of death. Lymphomas arising prior to or within 12 months of CD diagnosis were excluded, as for the incident lymphomas found at autopsy. There were 38 cases of NHL, and a SIR-NHL of 6.3 (95% CI: 4.2-125) was calculated. The SMR-NHL was 11.4 (95% CI: 7.8-16), which was disproportionately elevated compared with the SMR-all causes (2.0 [95% CI: 1.8-2.1]).

Delco et al.<sup>342</sup> used the database of discharge diagnoses from all US Veteran Affairs hospitals to gather a total of 458 CD patients, hospitalized between 1986 and 1995. The concomitant diagnoses received by those patients were compared with those of five controls per CD patient, randomly selected from the same year's discharge database (total 2,692 controls). The mean age of the CD group was 63.8  $\pm$  12.4 years and the mean age of the control group was 59.7  $\pm$  14.8 years ( $p < 0.001$ ). Ninety-three percent of the patients with CD were white, compared with 74% of the control subjects ( $p < 0.0001$ ). The odds ratio (OR) of NHL (OR-NHL) in CD, was 4.53 (2.01-10.23).

## Role of a GFD

The impact of GFD compliance was analyzed and reported in only two of the nine studies. Holmes et al.<sup>333</sup> reported a SIR of NHL in patients on a strict GFD (SIR 44.4), versus those who did not adhere to a GFD (SIR 100). Corrao et al.<sup>339</sup> observed that the mortality from all causes was lower in patients on a strict GFD, as opposed to those who were unlikely GFD-compliant (SMR 0.5 [95% CI: 0.2-1.1] and 6.0 [95% CI: 4.0-8.8], respectively). Although, in the study by Askling<sup>337</sup>, compliance could not be directly ascertained, the SIR of lymphoma 1 to 4 years after diagnosis was 9.7 (95% CI:6.3-14), whereas, it dropped to 3.8 (95% CI: 2.2-6) five or more years after diagnosis, suggesting that the risk of lymphoma decreases over time on a GFD.

## Risk of Lymphoma Versus Symptoms

The mode of presentation leading to the diagnosis of CD was not commonly reported. The reports from Italy<sup>335,339</sup> were unique in that they both detailed the circumstances by which the diagnosis of CD was diagnosed, portraying their cohorts as largely asymptomatic, since 45%<sup>335</sup> and 70%<sup>339</sup> of their patients had subclinical presentations, i.e., either mild symptoms, anemia, or were detected through screening. Conversely, it is reasonable to suggest that the studies that used hospital discharge diagnoses of CD as entry criteria would be largely made up of symptomatic CD patients. Unfortunately, it is not possible to compare the measured risk of lymphoma in the Italian studies to those of our other reports, because of the great disparities in populations, data collection and analyses amongst them.

The presence or absence of symptom at the time of CD diagnosis was not evaluated as a risk factor for lymphoma per se. Corrao et al.<sup>339</sup> did, however, analyze the impact of the mode of presentation on the mortality from all causes in CD. They observed that patients diagnosed with mild symptoms or by antibody screening did not show any relevant excess mortality, compared with the symptomatic group (SMR 1.2 [95% CI: 0.1-7.0] and 2.5 [95% CI: 1.8-3.4], respectively).<sup>339</sup>

## Impact of the Age at Diagnosis of CD

Several studies analyzed the risk of lymphoma with respect to the age at diagnosis of CD. Patients who were diagnosed with CD during adulthood were either 1) asymptomatic during childhood or 2) symptomatic but eluded the diagnosis. For the later circumstance, authors have referred to “diagnostic delay” as a symptomatic period in the absence of diagnosis or treatment. The impact of the diagnostic delay was analyzed in two studies.<sup>336,339</sup> Corrao et al.<sup>339</sup> compared the mortality from all causes in patients who had suffered a diagnostic delay of more than 10 years, one to 10 years, or less than 1 year (no diagnostic delay), and found that the longer the untreated symptomatic period, the greater the mortality from all causes (SMR 3.8 [95% CI: 2.2-6.4], 2.6 [95% CI: 1.6-4.1], and 1.5 [95% CI: 0.9-2.3], respectively). Logan et al.,<sup>336</sup> on the other hand, reported opposite results: while the SMR-all causes was significantly greater than 1 for their entire cohort (1.9 [95% CI: 1.5-2.2]), for those CD patients diagnosed only in adult-life despite an obvious childhood illness typical of CD, all-cause mortality was similar to that of other CD patients diagnosed in adult life. A difference in methodology might explain this discrepancy, since the ascertainment of outcomes was derived from registers in Logan’s study

and was probably not as accurate and reliable for outcomes such as the presence or absence of symptoms during childhood.

Logan et al.<sup>336</sup> also reported that the all-cause mortality was increased in the patients diagnosed as adults, but not those who were diagnosed as children (SMR 1.9 [95% CI: 1.5-2.3] and 1.4 [95% CI: 0.4-3.7], respectively).

The patients from Corrao's cohort were exclusively diagnosed with CD as adults. The SMR-all causes for patients diagnosed between 18 and 29 years was slightly less, and not significantly different from 1.0, compared with those who were diagnosed later on in life, i.e., 2.5 (95% CI: 0.5-7.3) for those diagnosed at age 30 years versus 2.4 (95% CI: 1.3-4.0) for those diagnosed at age 49 years and 1.9 (95% CI: 1.3-2.6) for those diagnosed at age >50 years.

Askling et al.<sup>345</sup> reported on 11,019 patients with CD, diagnosed at all ages, and found that the SIR-NHL was not significantly greater than one in CD patients who were diagnosed during childhood, in contrast with those who were diagnosed as adults (SIR-NHL 1.9 [95% CI: 0.4-5.5] for diagnoses made at ages 0 to 19 years compared with 7.7 [95% CI: 4.9-12] for those diagnosed between 20 and 59 years). Part of the increased risk in adults may be explained by the fact that in some of these cases the diagnosis of lymphoma can be made simultaneously or soon after that of CD. However, cases of lymphoma diagnosed within 12 months of CD diagnosis were excluded from Askling's study, so that the risk of lymphoma in adult CD diagnosis remains elevated independently of cases with simultaneous presentation.

## **Risk of Lymphoma in Refractory CD**

We were unable to identify a single source of controlled data on the risk of lymphoma in refractory CD. There was one indirect source of controlled evidence on the mortality in CD. Nielsen et al.,<sup>343</sup> from Denmark, published the mortality data from 98 patients with CD diagnosed between 1964 and 1982, 24% of which were treated with prednisone because they did not respond to a GFD, i.e., probable refractory CD. The mortality in CD exceeded that of the general population (controlled for age and sex) by a factor of 3.4 ( $p < 0.025$ ); in GFD-responders, this factor was 2.2 ( $p < 0.025$ ), whereas it was 5.8 ( $p < 0.005$ ) in the non-responders. The causes of death were poorly documented, and therefore, will not be described here.

## **Quality Assessment**

The overall quality of the included studies was good (Appendix J, Tables 3-5). For example the assessment of outcomes was complete in the included studies.

## Celiac 4: Consequences of Testing for CD

Out of 1,199 citations that were identified by the search strategy for the Celiac 4 objective, 140 met the level 1 screening criteria (excluded 1059) (Appendix E). Of these, 126 met the level 2 screening criteria (excluded 14). At level 3, 35 articles satisfied the screening criteria (Evidence Table 11, Appendix H)<sup>346-380</sup> (excluded 72 articles at level 3). Eleven relevant articles were identified in other celiac objectives: five from Celiac 2;<sup>381-385</sup> four from Celiac 3,<sup>331,335,336,343</sup> and two from Celiac 5.<sup>386,387</sup>

The search strategy did not identify any studies that would allow us to address the specific benefits and harms of testing with different strategies for CD. The consequences such as false-positive results were dealt with in Celiac 1. We address the response to treatment in the sections that follow.

For the consequence of osteoporosis/fracture, an additional search was conducted with the search terms osteoporosis and CD, and five additional relevant studies were identified.<sup>388-392</sup>

The consequences that were included in this review were: 1) costs, 2) patients complying with treatment, 3) response to treatment in terms of symptoms, and 4) clinical outcomes such as reduced risk of complications—osteoporosis, mortality, anemia.

Given the recent recognition that the number of subclinical and silent CD cases may be eight times that of classically symptomatic cases, it is important to determine if the clinical outcomes vary according to type of clinical presentation. Where possible, results of the analysis according to type of clinical presentation are presented.

### Part A

Most papers included in the consequences of testing for CD dealt with patients (who were newly diagnosed) after they initiated a GFD. Most studies evaluating the consequences of nutritional status were before/after studies. In total, 15 studies dealing with either nutritional status, weight, body mass index (BMI) and body composition, were identified.<sup>346-350,352,357,359,361,363-365,369-371</sup>

Seven studies were case control,<sup>347-349,352,357,364,369</sup> one a cohort study,<sup>346</sup> and in seven studies, the patients acted as their own control group.<sup>350,359,361,363,365,370,371</sup>

Eight studies were based on children with CD,<sup>347,349,350,352,357,359,369,370</sup>, three studies were based on adolescents with CD<sup>363-365</sup> and four studies were based on adults with CD<sup>346,348,361,371</sup>.

There were five studies that evaluated costs of screening as a consequence.<sup>360,366,379,380,382</sup>

**Type 1 diabetes and CD.** Four studies evaluated diabetes and CD in children.<sup>347,357,359,370</sup> Three studies were from Europe (UK,<sup>347</sup> Hungary,<sup>359</sup> and Finland<sup>370</sup>) and one was from Australia.<sup>357</sup> Two were case control studies<sup>347,357</sup> and two studies had patients with CD act as their own controls.<sup>359,370</sup> All the studies assessed the effect of a GFD diet (range 3-12 months) on the diabetic control of type 1 diabetes.

The UK study<sup>347</sup> evaluated 230 children with type 1 diabetes who were screened for CD with serology. Those children with positive serology were biopsied. Eleven children were diagnosed with CD and followed longitudinally. The control subjects were the children diagnosed with type 1 diabetes with negative serology. The controls were matched for age, sex and duration of diabetes in a 2:1 ratio (22 controls:11 cases). At baseline, the weight (standard deviation score;

SDS), BMI SDS and HbA1c of the cases were statistically lower than the controls. No statistical difference was noted for height SDS, C-peptide level and insulin requirements. Also, the cases (type I diabetes with positive CD serology) received significantly less intensive insulin regimens compared with controls. Six type 1 diabetic children with CD participated in the GFD. After 12 months of a GFD, the differences seen in the BMI SDS was reversed between the cases and controls. HgA1c levels did not improve significantly on a GFD. Insulin dose requirements increased for both cases and controls, but still did not significantly differ from each other. Insulin regimens were not statistically different between cases and controls after a GFD.

The Australian study<sup>357</sup> included children and adolescents with coexisting type 1 diabetes and CD, which were identified from a database of the Diabetes Center at the Royal Alexandra Hospital for Children. CD had to be biopsy-proven. Twenty patients (5M:15F) were enrolled out of 36 patients identified on the database. Forty control patients from the same database were matched for age, sex and duration of IDDM. No immediate criteria on screening from the database was given in the study. At baseline, the current height SDS, current weight SDS, BMI SDS and HbA1c were not significantly different from controls. Compliance with a GFD was based on dietary records classifying patients to: no detectable gluten; trace of gluten; and, gluten containing. For compliance, 30% of patients were classified as adhering to a strict GFD, 30% consumed trace amounts of gluten, and 40% had a significant amount of gluten in their diet. No differences were detected in growth parameters or HbA1c according to compliance to a GFD.

The Hungarian study<sup>359</sup> included 205 children with type 1 diabetes that were randomly selected from screening for CD. None of these patients had suspicion for CD. Twenty-four children were positive for EMA and 17 (7 boys and 10 girls) had subtotal villous atrophy. The height of the children with CD and type 1 diabetes were normal compared with children with only type 1 diabetes at baseline. But the BMI of the 17 children was significantly lower (14.2 vs 16.3 kg/m<sup>2</sup>) compared to controls. After three months of a GFD, BMI significantly increased (14.2 vs 16.8 kg/m<sup>2</sup>). Furthermore, significant increases in insulin requirements (0.64 U/kg vs 0.48 U/kg) occurred after a GFD. The percentage of HbA1c did not change on a GFD compared with baseline (7.82% versus 7.67%).

The study from Finland by Saukkonen et al.,<sup>370</sup> retrospectively screened 776 children with type 1 diabetes over a 2.7 year period with serology and, if positive, jejunal biopsy. Eighteen children (2.3%) had confirmed CD. HbA1c levels did not change after introduction of a GFD. Correlation of height SDS and mean weight for height were not compared post-GFD.

**Body composition and anthropometrics.** Six studies specifically detailed body composition after a GFD.<sup>348-350,352,369,371</sup> Of these studies, four examined children,<sup>349,350,352,369</sup> and two included adults.<sup>348,371</sup>

Of the studies conducted in adult patients with CD, one was from Italy<sup>348</sup> and the other from Argentina.<sup>371</sup> In the Italian case-control study, 212 treated patients with histologically-confirmed CD were assessed. Of these, 71 (33.4%) (51 women and 20 men) were asymptomatic, had maintained a constant body weight during the previous 6 months, and were on a strict GFD. Forty-three of the patients were diagnosed as children (28 women and 15 men; average age 5.2 years) and 28 were diagnosed as adults (23 women and 5 men; average age 28 years). The average consumption of a GFD was  $\geq 2$  years. For each patient, there were two sex- and age-matched healthy controls (142 controls). Body composition was calculated by means of DEXA. The weight and BMI of female CD patients were lower than the controls (55.5 kg vs 58.7 kg,

$p=0.004$  and  $20.9 \text{ kg/m}^2$  vs  $22.4 \text{ kg/m}^2$ ,  $p=0.03$ ). The height and BMD were not significantly different, although BMD for those diagnosed as adults was lower than controls. Fat mass (22.9% vs 27.5%,  $p<0.05$ ) and lean mass (38.8% vs 40.5%,  $p<0.03$ ) were also significantly lower in cases versus controls. The weight (69.2 kg vs 73.3 kg,  $p=0.03$ ), height (175 cm vs 178 cm,  $p=0.05$ ) and BMI ( $21.9 \text{ kg/cm}^2$  vs  $23.5 \text{ kg/cm}^2$ ,  $p=0.05$ ) of male patients were significantly lower than in controls. Fat mass (13.9% versus 16.8%,  $p<0.05$ ) and lean mass (55.5% versus 56.7%,  $p<0.03$ ) were also significantly lower than in controls.

The study from Argentina by Smecuol et al.,<sup>371</sup> enrolled 47 (41 females, 6 males) unselected, consecutive patients with newly diagnosed CD (diagnosed between Sept 1991 and Oct 1993). Twenty-five patients were re-evaluated in 1995 (24 females and 1 male). The diagnosis of CD was based on clinical features of classic and atypical symptoms, with positive small bowel biopsy and positive serology. Three patients were asymptomatic, the rest had classical features of CD. After 12 months, all patients on an initial GFD, improved. In the study, the patients acted as their own control—15 patients adhered strictly to the GFD, while ten were on a partial GFD. Patients on a strict GFD consumed less calories than patients who were poor compliers ( $p<0.05$ ). After treatment, fat mass (18.2 kg,  $p<0.0001$ ) and bone mass ( $2 \text{ kg/m}^2$ ,  $p<0.002$ ) increased significantly. Lean tissue mass did not increase. Body weight (55.7 kg,  $p<0.0001$ ), BMI ( $22.2 \text{ kg/m}^2$ ,  $p<0.001$ ) and triceps skinfold thickness (15.8,  $p<0.0001$ ) were increased significantly; mid-arm muscle circumference and muscle mass did not change. Patients who more strictly adhered to the GFD tended to demonstrate greater increases, although the trend was not significant.

Of the four studies that evaluated children, two were from Italy<sup>349,352</sup>, one was from the Netherlands,<sup>350</sup> and one was from India.<sup>369</sup> Both Italian studies were case-control studies, whereas, in the Netherlands study, the patients acted as their own control. In one of the Italian studies by Barera et al.,<sup>349</sup> 29 consecutive children (14 boys and 15 girls) with a diagnosis of CD were enrolled (mean age  $9.54 \pm 3.42$  yr). Diagnosis was according to ESPGAN criteria. Four patients had classic symptoms, while the rest had atypical CD. The patients were studied over  $1.02 \pm 0.15$  years of GFD. Each patient was age- and sex-matched to a healthy control patient ( $n=29$ ). At baseline, children with CD weighed less than the controls ( $28.3 \pm 11 \text{ kg}$  vs  $34.5 \pm 14.1 \text{ kg}$ ,  $p=0.04$ ), had lower lean mass of limbs ( $8.4 \pm 4.8 \text{ kg}$  vs  $10.8 \pm 4.7 \text{ kg}$ ,  $p=0.0013$ ), less fat mass ( $4.6 \pm 3.5 \text{ kg}$  vs  $7.5 \pm 4.9 \text{ kg}$ ,  $p=0.006$ ), less percentage of fat mass ( $17.4 \pm 8.3\%$  vs  $23.7 \pm 8.4\%$ ,  $p=0.002$ ) and lower bone mineral content ( $1067.2 \pm 451.3 \text{ g}$  vs  $1317 \pm 553.8 \text{ g}$ ,  $p=0.006$ ). Height, BMI, lean mass, and ratio of lean mass to height, did not differ from controls at baseline. After an average of 1 year on a GFD in 23 children, no significant differences were found in weight, height, BMI, lean mass, lean mass to height, lean mass of limbs, fat mass, percentage of fat mass or bone mineral content (BMC), compared with controls. Compliance was good in all patients as assessed by EMA (only three subjects were still positive).

The second Italian study by Rea et al.,<sup>352</sup> enrolled 23 children (8 boys and 15 girls, mean age  $4.7 \pm 0.76$  yr) from Jan 1992 to Dec 1994, according to ESPGAN criteria. They were sex- and age-matched to healthy controls from the ambulatory clinic. At baseline, the height, BMC, arm muscle area (AMA), triceps skinfold (TSF), subscapular skinfold (SSSF), and fat area index (FAI), were significantly lower than controls. The BMI and weight for height index (WHI) were not different. After GFD, all the parameters improved when compared with patients to before GFD. Height, BMC, AMA, BMI, TSF, SSF, FAI and WHI all significantly improved. If patients post-GFD were compared with controls, the height was still significantly lower ( $p=0.01$ ) but the rest of the values were not significant. After a GFD, the blood chemistry of these patients

was assessed. The hemoglobin, iron, protein, albumin triglycerides, calcium, and zinc levels were significantly different from the baseline value; however, transferrin, cholesterol, phosphorus and alkaline phosphatase levels were not different.

The study from the Netherlands by Boersma et al.,<sup>350</sup> enrolled 28 children (9 boys and 19 girls) with newly diagnosed CD (between Jan 94 to Jan 95). All children had classic symptoms and had positive small bowel biopsies. After 3 years of a GFD, the BMI SDS and height SDS improved significantly ( $p < 0.0001$  for both). The initial improvement of BMI SDS was seen in the initial 6 months with subsequent gradual improvement. The height SDS improved continuously over the 3 year period, and the improvement was significant.

In a study from India by Poddar et al.,<sup>369</sup> 104 children evaluated for CD between Sept 1997 to Dec 1998 were included. All children had diarrhea, failure to thrive or pallor as a clinical presentation. Fifty-seven were diagnosed as having CD (by modified ESPGAN score) and the remaining 47 were controls. Seven children who did not respond to a GFD and were excluded, were diagnosed with other diseases. The mean follow-up of patients after starting a GFD was  $19.6 \pm 8$  months (range 4-36 months). The remaining 50 children had a dramatic response to the GFD. Symptoms subsided in  $16 \pm 9.8$  days (range 4-30) and all showed significant weight gain ( $66\% \pm 14\%$  vs  $86\% \pm 11\%$  of expected,  $p < 0.001$ ). Height gain improved, but was not significant ( $88 \pm 5\%$  vs  $94 \pm 5\%$  of expected,  $p = \text{not significant}$ ). Seventeen percent of the children had poor compliance to the GFD. No attempt at subdividing patients into poor versus good compliance was made.

**Nutritional status.** Two studies looked at nutritional status with biochemical markers.

In the study from Finland by Kempainen<sup>346</sup> nutritional status of newly diagnosed patients with CD before and after GFD was reported. Forty patients with CD diagnosed between Nov 1988 to Dec 1990 were included. All had abdominal symptoms. Diagnosis was made on presence of partial villous atrophy (eight patients), subtotal villous atrophy (17 patients) or total villous atroph (15 patients). On mean histomorphometric index, there was a statistically significant trend ( $p = 0.004$ ) comparing partial villous atrophy ( $0.018 \pm 0.003$ ), subtotal villous atrophy ( $0.0015 \pm 0.002$ ) and total villous atrophy ( $0.013 \pm 0.002$ ). When biochemical measurements were examined according to grade of villous atrophy, significant differences were seen for ferritin ( $p < 0.01$ ) and transferrin ( $p < 0.05$ ). Serum ferritin was still significantly lower in total villous atrophy, as was erythrocyte folate levels if sex was standardized in an analysis of variance. Severity of villous atrophy also correlated with ferritin, erythrocyte folate, and serum vitamin B12. Abnormal values of serum protein, vitamin A, and vitamin B12, were low. There were no abnormal vitamin E levels. Villous atrophy improved in all patients within 12 months of a GFD. Two patients had subtotal villous atrophy, 29 had partial villous atrophy and three had normal villi after a GFD. Six patients withdrew from the study. BMI increased after a GFD, as did most of the biochemical measurements. One patient with subtotal villous atrophy still had a low hemoglobin value. Of the 29 patients with partial villous atrophy, three had low folate levels, seven had low hemoglobin, one had low vitamin B12, one had low protein, five had low vitamin A, five were low in ferritin, five had low iron, and ten patients had low zinc levels. Only one patient (out of three) who had normal villi also had low hemoglobin levels.

In the study from Italy, by Bardella et al.,<sup>361</sup> 26 adults (five male and 21 female, mean age 42.2, range 22-81) with malabsorption and biopsy-confirmed CD were enrolled. They were followed for a mean of 55.4 months (range 13-137 months) on a GFD. Eight patients remained in good health with normal blood tests. The remaining 18 patients had abnormalities despite

GFD. No correlation was noted with severity of symptoms of malabsorption and biochemical abnormalities. Iron deficiency was found in five patients. Abnormal calcium, phosphorus, alkaline phosphatase and/or bone density was found in seven patients. Macrocytic anemia was found in four patients. Clinical symptoms were seen in 11 patients. No correlations between abnormal values and grade of histology on biopsy were found.

**Compliance.** Three studies were identified that looked at compliance,<sup>363-365</sup>. All studies were conducted in Italy and assessed an adolescent population.

In the first study of adolescents that looked at dietary compliance, Fabiani et al.<sup>363</sup> evaluated 28 biopsy-proven CD patients (17 females and 11 males). These 28 adolescents were selected from a group of 6,315 students, age 11 to 14 years, who had previously been screened for CD. All were advised to start a GFD. Twenty-three of the 28 patients participated in this study. The mean follow-up duration was  $23 \pm 7$  months (range 9-3 months). Fifty-two percent (12/23) were on a strict GFD and 47% (11/23) partially adhered to the diet. Improvement in most patients was seen after starting a GFD. Weight gain was reported in 12 patients (52%)—11 had increased height velocity and appetite, eight had disappearance of symptoms of abdominal pain, six had resolution of diarrhea, five had disappearance of anemia and three had disappearance of recurrent aphthous stomatitis. Three patients did not demonstrate any change.

The second study, also by Fabiani,<sup>364</sup> was a 5-year case-control study that enrolled two groups of patients. The first group (group A) included subjects between the ages of 11 and 14 years, who were diagnosed as a result of a mass screening program. The second group (group B) were patients diagnosed due to typical symptoms of CD between 1985 to 1986. All patients had biopsy-proven CD according to ESPGAN criteria. All patients were followed for 5 years and advised to start a GFD. Twenty-seven patients were in group A and 22 agreed to participate; 24 patients were in group B and 22 agreed to participate. There were no differences between the patients in group A and group B in terms of BMI and height SDS. No difference was found between the two groups in terms of symptoms. Adherence to the treatment was significantly lower in patients from group A compared with group B. There were a significantly greater proportion of patients in group B that demonstrated strict adherence to a GFD (15/22; 68%) compared with patients in group A (5/22; 23%).

The third study to look at compliance looked at 306 teenage patients with CD (mean age 15.9 yr; range 10-27 yr) recruited consecutively from a CD clinic.<sup>365</sup> Of the patients, 186(60%) were female and 120 were male. Diagnosis of CD was biopsy confirmed. Recall questionnaire was used to evaluate diet and compliance. Compliance was recorded in three categories: 1) strict gluten diet (n=223 [73%]); 2) occasional relapse (n=46) 15%; and, 3) gluten-containing diet (n=37) 12%. Eighty percent of the female patients, compared with 64.2% of the male patients, adhered to a strict diet (p=0.012). Compliance also varied with age, with older age associated with less compliance (p=0.05). Growth status was grouped according to compliance to a GFD—the mean standardized height, the relative weight for age, and the relative weight for height, did not differ significantly between the compliance groups. Symptom scores were relatively good among all groups. No statistically significant differences were noted. School performance was not significantly different between good versus poor compliers.

**Costs.** Five studies included an assessment of costs involved in different screening strategies.<sup>360,366,379,380,382</sup>

Harewood et al.<sup>366</sup> performed a decision analysis to compare costs of serological testing versus small bowel biopsy (AGA vs EMA versus small bowel biopsy) for diagnosis of CD. The analytic technique used was a cost minimization and the viewpoint was third-party payer. A sensitivity analysis was conducted. The authors demonstrated that initial screening with EMA is the least costly strategy for diagnosis in a low to medium risk population.

Gomez et al.<sup>382</sup> evaluated a screening algorithm for CD in 1,000 consecutive subjects who were screened while attending a central laboratory. Gomez and colleagues compared two screening protocols: (1) three-level screen-IgG/IgA-AGA antibodies at the first level, then IgA-EMA, and finally intestinal biopsy versus screening, and (2) tTG-GP and total IgA as first-line screen, and EMA for positive patients followed by intestinal biopsy. The analytic framework and viewpoint were not stated. In this study, a comparative cost analysis was performed. They found that the combination of a highly-sensitive test at the first step with a highly-specific test at the second step appears to be a more reliable screening mechanism.

Zaccari et al.,<sup>379</sup> in an Italian model, proposed a four-level screening protocol for children at least 15 months of age, including: 1) AGA, 2) EMA, 3) intestinal permeability, and 4) small bowel biopsy. In this study, they evaluated only the total costs at each level of screening.

Atkinson et al.,<sup>360</sup> in a Canadian study, evaluated the operating costs of EMA in the diagnosis of CD using a cost-minimization model with a decision analytic approach with three strategies. The analytic perspective used was the societal viewpoint, and costs were discounted at 5% per annum. A one-way sensitivity analysis of all probability and cost estimates was performed. Incremental costs of the GFD were estimated from a survey of 25 patients which resulted in a lifetime incremental cost of \$44,000. If a small bowel biopsy was performed initially, the cost was \$997; for EMA followed by small bowel biopsy, the cost was \$866. The total cost was \$3,714, which resulted in an incremental cost savings of \$2,177 if small bowel biopsy had been performed first. In the sensitivity analysis, the specificity of EMA would have to be greater than 95% to make EMA least expensive.

## Part B

There were 27 studies that examined the response of various endpoints to a GFD.

One Italian study,<sup>354</sup> used a case-control design to evaluate the effect of a GFD on thyroid status. The study by Annibale et al.,<sup>358</sup> evaluated the impact of a GFD on anemia and iron deficiency in newly diagnosed CD cases identified from screening of adults with IDA in Italy. In a case-control study, Ciacci et al.<sup>351</sup> investigated the impact of a GFD on pregnancy outcomes, and Addolorato et al.<sup>374</sup> evaluated the impact of a GFD on anxiety and depression in a population of CD patients in Italy. Mortality was evaluated in seven cohort studies.<sup>331,335,336,343,362,367,368</sup> Seventeen studies assessed either change in BMD or fracture as an endpoint in individuals with CD.

**Thyroid study.** In the Italian study,<sup>354</sup> 241 consecutive adults with biopsy-confirmed CD were enrolled between Jan 1996 and July 1998 (177 women and 64 men). Forty percent of patients had classical symptoms, 44% had atypical symptoms and 16% had silent CD. Two hundred and twelve patients, matched for age, sex and ethnic origin, were used as controls. All newly-diagnosed CD patients were started on a GFD and patients with hypo- or hyperthyroidism were

started on appropriate medical therapy. Thyroid dysfunction was found in 73 (61 women and 12 men) of 241 patients with CD, and in 24 (19 women and 5 men) of the 212 patients in the control group ( $p < 0.0005$ ). The difference was statistically significant for women when divided by sex ( $p < 0.0005$ ). Hypothyroidism was diagnosed in 31 patients (12.9%) and nine controls (4.2%) ( $p < 0.003$ ); it was subclinical in 29 CD patients and eight controls and overt in the remaining patients. The difference was only significant for women ( $p = 0.0045$ ). Twenty-one patients and four controls had non-autoimmune hypothyroidism. Ten patients and five controls had autoimmune hypothyroidism. Hyperthyroidism was diagnosed in three patients and seven controls; it was subclinical in two patients and five controls. Autoimmune thyroid disease with euthyroidism was present in 39 patients and eight controls. The difference was only statistically significant in women ( $p < 0.0005$ ). At diagnosis, the BMI, hemoglobin, iron, and albumin levels were similar between patients with thyroid disease and those without. After 1 year of a GFD, 128 patients were reassessed. Ninety-one patients had normal thyroid function, whereas, 37 had some impairment. Compliance to diet was not different between the two groups. Subclinical hypothyroidism improved in 10/14 patients with non-autoimmune hypothyroidism. Three of five patients with autoimmune hypothyroidism shifted to autoimmune thyroid disease with euthyroidism; four out of five patients with no improvement in thyroid function had poor compliance with diet. Significant improvement in nutritional indices was also seen with BMI in females, HbG in both sexes, and serum albumin and serum iron in both sexes.

**Iron deficiency.** In this Italian prospective study,<sup>358</sup> 190 consecutive patients (160 women and 30 men) who were referred to the GI department from the hematology for IDA between Jan 1994 to May 1997, were examined. Twenty-six patients were diagnosed with CD (24 women and 2 men); average age 31.3 years (range 20 -72). Seventy-seven percent of patients had total villous atrophy and 23% had subtotal atrophy; repeat endoscopy with biopsy specimens were taken after 6 months. After GFD, 20 patients (18 women and 2 men) were followed for 24 months. After 6 months, 14 of the 18 female patients (77%) recovered from IDA. Only 5/18 reversed from iron deficiency as defined by normal ferritin levels. At 12 months, 17/18 recovered from IDA. Nine patients reversed from iron deficiency. After 24 months, the same patient still did not reverse from IDA. Ten patients (55%) reversed their iron deficiency. Of the two males, at 6 months of a GFD, only one recovered from anemia but not from iron deficiency (low ferritin). At 12 months, both patients reversed their anemia and iron deficiency. At 24 months, further increases in ferritin were observed. In a subgroup of patients that had repeat small bowel biopsies at 6 and 12 months, there was a significant inverse correlation between increases in Hb concentrations and decreases in histological scores of duodenitis. This study demonstrated that recovery from IDA occurs within the first 6 to 12 months, but reversal from iron deficiency occurs in 50% of cases (predominantly premenopausal women). Long-term follow-up of ferritin results and small bowel biopsies in subjects with CD would be helpful to determine if iron deficiency resolves completely.

**Pregnancy outcomes.** In this case-control study from Italy by Ciacci et al.,<sup>351</sup> 297 women with CD were enrolled. Three types of analyses were used. Analysis A was a case-control study between untreated women ( $n=94$ ; at least one pregnancy when symptoms of CD were present and lead to eventual diagnosis) and treated CD women ( $n=31$ ; at least one pregnancy after 1 year of a GFD). At baseline, weight, height and body mass index were the similar between the two groups. However, the treated group was significantly younger than the untreated group ( $37.3 \pm$

12 yrs vs  $22.4 \pm 1.6$  yrs,  $p < 0.01$ ), which may have biased the results. The number of pregnancies per woman was also lower for the treated group ( $2.72 \pm 0.16$  vs  $1.6 \pm 0.11$ ,  $p < 0.0001$ ). The number of abortions per woman ( $0.489 \pm 0.085$  vs  $0.032 \pm 0.032$ ,  $p < 0.0001$ ), as well as the abortion to pregnancy ratio, was much lower for the treated group compared with the untreated group ( $0.153 \pm 0.027$  vs  $0.024 \pm 0.024$ ,  $p < 0.005$ ). Subgroup analysis taking into account the age at diagnosis, demonstrated that for those women diagnosed at age 30 years or less ( $n=27$ ), the number of abortions per woman was  $0.556 \pm 0.156$  and the abortion to pregnancy ratio was  $0.234 \pm 0.066$ . The prevalence of abortion in pregnancies was 17.8% in untreated CD patients, compared with 2.4% in treated patients ( $p < 0.001$ ). The RR of abortion was 8.9. Low-birth-weight baby to pregnancy ratio ( $0.126 \pm 0.037$  vs  $0.024 \pm 0.024$ ,  $p < 0.03$ ) was significantly lower in the treated group. The duration of breast feeding was significantly longer for the treated group ( $2.77 \pm 0.52$  vs  $7.03 \pm 1.17$ ,  $p < 0.0003$ ). The threatened abortion to pregnancy ratio and premature delivery to pregnancy ratio was not significantly different from untreated to treated CD women. For the subgroup of women  $< 30$  years ( $n=27$ ), birth weight, baby to pregnancy ratio, and duration of breast feeding, did not alter the statistical significance. The prevalence of low birth weight babies in nonabortive pregnancies was 12.7% for untreated patients and 2.4% for treated patients ( $p < 0.05$ ). The RR of low birth weight babies was 5.84 times greater in the untreated group compared with the treated group.

In Analysis B, women with CD were all untreated and then analyzed depending on whether diarrhea was present or not. The authors found that the abortion to pregnancy ratio and the premature delivery ratio were found to be lower in CD women without diarrhea compared with those women with diarrhea, although the difference was not statistically significant.

In Analysis C, the effect of a GFD on pregnancy outcome was analyzed. The study examined 12 women with CD after 1 year of a GFD (own control); there was at least one pregnancy without treatment. All outcomes were better in the group of women on the GFD: number of pregnancies  $2.5 \pm 1.24$  versus  $1.08 \pm 0.29$  ( $p < 0.003$ ); number of abortions per woman  $1.08 \pm 1.16$  versus  $0.08 \pm 0.28$  ( $p < 0.02$ ); abortion to pregnancy ratio  $0.405 \pm 0.140$  versus  $0.074 \pm 0.280$ ,  $p < 0.02$ ); and, low birth weight baby to pregnancy ratio  $0.292 \pm 0.129$  versus 0 ( $p = 0.05$ ). The threatened abortion to pregnancy ratio, premature delivery to pregnancy ratio, and duration of breast feeding, were not significantly different between the two groups. The prevalence of abortion was 43.3% for the untreated group, compared with 7.7% for the treated group of CD women ( $p < 0.01$ ). The RR of abortion was 9.18. There were no low birthweight babies born to women in the GFD group, whereas, the prevalence of low weight babies was 29.4% in the untreated group (RR=11).

One of the limitations of the Ciacci et al. study was that it did not include an external control group or control for confounders. A historical cohort population-based study of the Danish Medical Birth Registry by Norgard, 1999<sup>393</sup> evaluated birth outcomes in women with CD. This study included 211 newborns born to 127 mothers with CD from 1977-1992 and compared them with 1,260 control deliveries. Women with CD were identified from hospital discharge diagnoses. Discharge records were linked to Medical Birth Registry which contained information on relevant outcomes. Outcomes included birthweight, low birthweight ( $< 2500$  g) pre-term birth ( $< 37$  wk), intrauterine growth retardation (birthweight  $< 2500$  g and gestational age  $\geq 37$  wk of pregnancy), and perinatal mortality. Potential confounders including maternal age, infant's gender, parity, and gestational age, were adjusted for in the analyses. The investigators could not control for other confounders such as smoking. Another potential limitation is that the date of diagnosis of CD was the initial time of discharge from hospital with CD. It is possible

that women may have been initially diagnosed in the ambulatory care clinic. Details about the clinical presentation of the women with CD and biopsy findings were not available. The mean age at time of delivery was 27.5 years for women with CD and 26.3 years for control women.

Norgard et al.,<sup>393</sup> found that before women were hospitalized for CD, they were at an increased risk of low birthweight babies (adjusted OR=2.6 [95% CI: 1.3-5.5]), and intrauterine growth retardation (12.3% vs 4.8% of controls; adjusted OR=3.4 [95% CI: 1.6-7.2]). After women with CD were first hospitalized, there was no increased risk of low birthweight babies (6% post diagnosis) or intrauterine growth retardation, when compared with controls. The results of this study have implications for women with undiagnosed (atypical or silent) CD.

**Anxiety and depression.** The study from Italy by Addolorato et al.,<sup>374</sup> enrolled 43 newly-diagnosed adult patients affected with classic CD, selected from 234 adult CD patients from an outpatient clinic between June 1995 and Oct 1998. No psychiatric disorders other than anxiety and/or depression were allowed. The diagnosis of CD was based on positive serology and biopsy. Of the 43 enrolled patients, eight dropped-out leaving 35 (14 males and 21 females, mean age  $29.8 \pm 7.4$  yr) patients for analysis. After a period of 12 months of GFD treatment, the patients were analyzed. The adherence to a GFD was evaluated based on patient self-report and family member interview. A group of 59 healthy asymptomatic controls (27 males and 32 females, age  $31.7 \pm 6.9$  yr) were matched for gender, age, residence, employment, socioeconomic and marital status. The psychological assessment was performed using a self-rating psychometric test for anxiety (State and Trait Anxiety Inventory test) and another for depression (SDS Zung self rating depression scale). Both tests were administered before and after GFD. Of the 59 controls, 23.7% showed high levels of anxiety, 15.2% showed trait anxiety, and 9.5% were positive for depression. Of the 35 untreated CD patients, 71.4% had high levels of anxiety, 25.7% showed trait anxiety and 57.1% were positive for depression. After 1-year of GFD, 25.7% had high levels of anxiety, 17.1% had trait anxiety, and 45.7% were still depressed. The levels of high anxiety (71.4% vs 23.7%,  $p < 0.0001$ ) and levels for depression (57.1% vs 9.6%,  $p < 0.0001$ ) were significantly higher in the CD patients than in the controls. The proportion of untreated CD patients with trait anxiety did not differ from controls. After a 1-year GFD, a significant decrease in high-state anxiety (71.4% vs 25.7%,  $p < 0.001$ ) was found when treated patients were compared with the untreated group. No significant differences were found for trait anxiety or depression.

**Fractures.** We identified six controlled studies that addressed the outcome of fractures in a CD population<sup>385,388-390,394</sup> and two reviews.<sup>381,391</sup> The study by Cook et al.<sup>395</sup> was not included since it did not have a comparison or control group. The study characteristics and methods for each study are summarized in Evidence Tables 12 (Appendix H).

All six studies were retrospective and there were two cohort studies<sup>385,388</sup>. Two studies included individuals that had biopsy-confirmed CD. All studies included controls as a comparator, and in three studies the controls appeared to be population-based.<sup>385,388,394</sup> With regards to the ascertainment of the outcome of fracture, data was obtained from self-report data from administrative databases,<sup>394</sup> patient register,<sup>385,388,394</sup> or from interview/case reports.<sup>389,390,392</sup> Only two studies mentioned inclusion of asymptomatic subjects.<sup>389,392</sup> Bone histology was mentioned as an outcome in a subset of patients in one study.<sup>390</sup>

The case-control study by Fickling and colleagues,<sup>390</sup> compared individuals with CD attending a GI outpatient department and/or members of local celiac societies. The authors found a higher prevalence of past history of fractures in the CD patients (21% [16/765]) compared with a control group (3% [2/75]; RR 7.0). There was no difference in BMD T-score results between those with and without a history fracture, although those patients with a fracture history were older ( $p < 0.02$ ). Limitations of this study include the fact that they did not identify whether CD was biopsy-confirmed, and a potential for selection bias.

Thomason et al.,<sup>373</sup> in a case-control study, used self-report data for 244 patients with biopsy-proven CD and found that fractures were not significantly increased in those with CD compared with controls (OR 1.05, 95% CI: 0.68-1.02), although there did seem to be a trend to increased wrist fractures (OR 1.21, 95% CI: 0.66-2.25). The mean age of these patients was older (60.2) and the mean BMI was higher (23.9) than that reported in other studies. However, this study may have been limited by potentially not having adequate power to detect fractures. In addition, all the fracture data was self-reported.

Vasquez et al.,<sup>389</sup> in a retrospective case-control study, found that 25% (41/165) of CD patients had one to four fractures, compared with 8% in age- and sex-matched controls. The majority of fractures occurred prior to diagnosis of CD and the most common fracture site was the wrist (OR 3.5, 95% CI: 1.8-7.2). Potential sources of bias for this study include the fact that the cases were from a malabsorption clinic and may therefore represent patients with more severe disease (mean BMI=21.4). The OR for vertebral fractures was 2.8 (95% CI: 0.7-1.15), although there was incomplete ascertainment of X-rays, since not all X-rays were of adequate quality. This was the only study to include an assessment of the proportion of patients on a strict versus a reduced GFD.

Two studies were population-based.<sup>385,388</sup> Vestergaard et al.,<sup>388</sup> evaluated all individuals with CD in Denmark captured from hospital discharge data, and did not find an increase in fractures requiring hospitalization in patients with CD ( $n=1,021$ ; 7,774 patient years) relative to controls ( $n=23$ ; 316 patient years) with an independent independent relative risk (IRR) at pre-diagnosis of 0.70 (95% CI: 0.45-1.09) for all fractures. For spine, the IRR pre-diagnosis was 2.14 (95% CI: 0.70-6.57) and 1.07 (95% CI: 0.39-2.95) for rib and pelvis. There are significant limitations to this study since the diagnosis of fractures was hospital-based and therefore, fractures that did not require hospitalization would be missed and could lead to under-reporting. In addition, the diagnosis of CD was only validated in a sample of nine cases (with a validity of 78%), and all cases of CD had to be hospitalized to be included.

West et al.,<sup>385</sup> in the largest analysis of fractures in CD patients identified from the UK GPRD primary care database, found an increase in fractures in CD patients relative to controls. The mean age at diagnosis was 43.5 years, and the ascertainment of fractures was from an administrative database. For any fracture, the hazard ratio was 1.3 (95% CI: 1.16-1.46; 137.9/10,000 patient years vs 105.9/10,000 patient years in controls]). The hazard ratio for hip fracture was 1.9 (95% CI: 1.2-3.02) and the hazard ratio for wrist fracture was 1.77 (95% 1.35-2.34). The absolute difference in the overall fracture rate was 3.2/1,000 person years and 0.97/1,000 for hip fractures in those older than age 45. In contrast to earlier studies, the authors did not find a difference in the risk of fracture after CD diagnosis compared with before diagnosis.

A recent case-control cross-sectional study by Moreno et al.,<sup>392</sup> compared fractures in 148 CD patients (53% classically symptomatic, 36% subclinical CD, and 11% silent CD-detected by screening) to 296 controls (functional GI disorders). The fracture data was self-report obtained

by interview/and pre-designed questionnaire. Moreno et al. found an increased number of fractures in the peripheral skeleton for classically symptomatic subjects compared with controls, but did not find an increased number of fractures in the subjects with subclinical or silent CD.

**BMD.** BMD is a surrogate outcome for fracture, and it is easier to evaluate in short-term studies. Previous studies of osteoporosis therapies in postmenopausal osteoporosis have shown that there may not, however, be a direct correlation between fracture reduction and increases in BMD. Osteoporosis/osteopenia may be a sign of subclinical CD and persisting osteopenia/osteoporosis in a patient with known CD may be a sign that the mucosa has not normalized.

BMD is an areal two-dimensional measure of bone mass and does not give a true volumetric measure and, therefore, may not be an accurate reflection of bone mass in children.

We found 11 articles that addressed the outcome of BMD/BMC in newly diagnosed subjects with CD.<sup>348,352,353,355,356,375-378,386,387</sup> The study characteristics are summarized in the Evidence Tables (see Appendix H).

The majority of these studies assessed BMD at baseline and the percentage change after a variable follow-up period (1 to 5 years in duration). Two studies evaluated the BMD of children with CD,<sup>352,377</sup> one study evaluated a mixed population,<sup>348</sup> and the remaining studies evaluated adults. All studies included individuals with biopsy-proven CD and in most of the studies BMD was compared with a control population. Only two studies had patients with CD act as their own controls.<sup>353,376</sup> The female to male prevalence ratio in CD is 2:1, and in these studies the proportion of females varied from 50% to 80%.

Five studies included assessments of dietary compliance to a GFD and three studies included data on whether subjects were on co-interventions (e.g., vitamin D or calcium), which may have impacted the BMD results. Only two studies<sup>356,376</sup> looked at the potential relationship between the change in histological grade on small bowel biopsy and change in BMD.

**Prevalence of osteoporosis/osteopenia.** The studies consistently found that BMD results were lower in untreated subjects with CD compared with controls. Regarding the prevalence of osteopenia/osteoporosis in newly diagnosed patients with CD, the estimates varied. Satgena-Guidetta et al.<sup>353</sup> noted a mean Z-score of -1.5 at lumbar spine, and -1.8 at the femoral neck, with 34% of subjects having normal BMD, 40% having osteopenia and 26% osteoporosis. Valdimarsson et al.<sup>355</sup> found the prevalence of severe osteopenia, as defined by a Z-score less than -2, to be 15% at the spine, 9% at the femoral neck, and 22% at the forearm. The prevalence of mild osteopenia (defined as  $-2 \leq Z < -1$ ) was 23% at the lumbar spine and 24% at the forearm. There was not any difference in lumbar spine BMD between those patients who presented with malabsorption, compared with those patients without malabsorption. Valdimarsson et al., found that 27% of subjects had secondary hyperparathyroidism. After 1 year on a GFD, the prevalence of those with severe osteopenia decreased from 23% to 14%.

In a recent review the authors pooled prevalence results and found that patients with untreated CD had a mean Z-score of -1.42, and a hip Z-score of -1.14.<sup>381</sup>

Valdimarsson et al.,<sup>356</sup> in a prospective study of 105 newly-diagnosed CD patients, performed follow-up small bowel biopsies. Of the 105 subjects, 28 had secondary hyperparathyroidism. They found a greater reduction in BMD in individuals who had secondary hyperparathyroidism (PTH>65). In this group, the BMD increased significantly, but did not completely normalize after 3 years of a GFD. In contrast, in those with normal PTH at diagnosis, the baseline BMD was not as low and there was a 2.5% increase after 1 year with the

BMD normalizing after 2 years of a GFD. Valdimarsson also noted that 22 patients with stage III-IV had lower median Z-scores than 76 patients with mucosal changes grade I-II. In this study, compliance with the GFD was 100% in those with high PTH, and lower at 87% in those with normal PTH levels.

Kemppainen et al.,<sup>376</sup> in a 5-year cohort study of 28 patients in which the cases served as own controls, found that BMD increased or remained stable in 69% of patients at the lumbar spine and in 67% of patients at the femoral neck. In this study, the authors did not notice an effect of the grade of villous atrophy on the mean BMD values or percentage change in BMD. They also did not observe any correlation between adherence to the GFD and the change in BMD.

Bai,<sup>375</sup> in a small cohort of 45 (25 completed) newly-diagnosed CD patients, assessed compliance with the GFD and found that 84% of patients increased their lumbar spine BMD (mean increase of 12%) and total body BMD (mean increase of 7.3%), compared with 151 control subjects. The greatest increase in BMD was noted within the first year. Bai<sup>375</sup> documented prior fractures in two patients, but did not report any fractures during the 4-year follow-up period.

Sategna-Guidetti et al.,<sup>353</sup> in a longitudinal study of 86 CD patients, noted a similar proportion of patients (83.7%) increased their spine BMD after 1 year, with an increase of 5.3% in LS BMD after 1 year (change in Z-score of 0.5 at the spine).

Ciacci et al.,<sup>386</sup> in a retrospective cohort of 41 consecutively diagnosed patients with CD, noted a significant increase in BMD (14% lumbar spine, and 10.4% femoral neck), after 1 year on a GFD. The authors also found that pretreatment BMD predicted response to treatment.

Mustalahati et al.,<sup>378</sup> noted a significant increase in lumbar spine and femoral neck BMD with treatment after 1 year compared with controls, and noted that the BMD was lower in symptom-free patients (n=15), suggesting patients with silent CD may have mucosal lesions for longer periods of time.

Bardella,<sup>348</sup> in a case-control study of 71 CD patients (43 who had started a GFD in childhood and 28 who were diagnosed as adults and were on a GFD and in remission), found that the BMD of the adult CD patients was significantly lower than the control value (0.9 g/cm<sup>2</sup> vs 1.1 g/cm<sup>2</sup>, p<0.01).

McFarlane et al.,<sup>387</sup> in a case control study of 21 biopsy-confirmed subjects with CD, documented that the baseline lumbar spine BMD was 85% of that seen in controls, and the increase in lumbar spine BMD over the first year was 6.6% (95% CI: 3.1-10.1) and 5.5% in the femoral neck.

*Children/adolescents.* Mora et al.,<sup>377</sup> in a study of 19 patients (211 controls), noted a lower BMD in CD patients versus controls at baseline, and an increase in total body BMD (using DXA) during the first year when compared with controls (15.2%).

Rea et al.,<sup>352</sup> noted an improvement in forearm Z-score after 1 year on a GFD in 23 newly diagnosed children with CD.

**Mortality.** There were seven cohort studies that addressed mortality data in CD. Two were Italian studies,<sup>335,362</sup> one was from Denmark,<sup>343</sup> one from Sweden,<sup>331</sup> and three were from the UK.<sup>336,367,368</sup> All seven were cohort studies.

Corraro et al.,<sup>362</sup> identified 1,072 biopsy-proven CD subjects from the records of 11 GI units between Jan 1962 to Dec 1994. The inclusion criteria were complete records and reliable

diagnosis of CD. The ratio of men to women was 1 to 3, the mean age at diagnosis was 35.7 years, mean follow-up was 6.0 years and median diagnostic delay was 17 months. Forty-five percent of the population had mild (39%) or asymptomatic disease, and 50 patients were lost to follow-up. Data were collected over accumulated 6,444 patient years of follow-up, with a mean follow-up of 6 years. Adherence to a GFD was assessed. Fifty-three CD patients died compared with 25.9 expected deaths. An increase in mortality was noted in the entire cohort population (SMR 2.0 [95% CI: 1.5-2.7]). The overall SMR did not differ by sex, age of diagnosis, or year of presentation. Diagnostic delay by more than 1 year significantly increased the SMR (2.6 [95% CI: 1.6-4.1]). There was significant mortality among patients presenting with malabsorption (SMR 2.5 [95% CI: 1.8-3.4]). No excess mortality was seen with patients with mild or asymptomatic CD. Significant mortality was also seen when patients did not adhere to a GFD on clinical records (SMR 10.7 [95% CI: 6.0-17.1]) and on patient interview (SMR 6.1 [95% CI: 4.2-8.6]). The causes of death showed an excess of death from malignancy (24 observed cases, SMR 2.6 [95% CI: 1.7-3.9]) and diseases of the respiratory (SMR 3.6 [95% CI: 1.1-8.4]) and digestive tracts (SMR 6.1 [95% CI: 3.0-10.9]). NHL was seen in two-thirds of the malignant cases (n=16). The other malignancies included gastric (n=2), small intestinal (n=1), liver (n=2), pancreatic (n=1), pleura (n=1), and leukemia (n=1). (Table 45)

Cottone et al.<sup>335</sup> evaluated mortality in a prospective cohort study of 228 biopsy-proven CD subjects in Sicily. Mortality was ascertained by reviewing hospital medical records and pathology specimens. Records were incomplete for 5% of patients. The mean age at diagnosis was 34.7 years and 100% of patients were on a GFD. Seventy-six percent were females. The clinical presentation was anemia in 60% of cases, malabsorption in 20% of cases, and asymptomatic in another 10% of cases. The mean follow-up was 73 months. Twelve deaths were observed, with 3.12 deaths expected and the SMR from all causes was 3.8 (95% CI: 1.9-6.7). The mortality rate was increased within the initial 4 years from diagnosis, giving an SMR of 5.8 (95% CI: 2.5-11.5).

Nielsen et al.<sup>343</sup> from Denmark, conducted a retrospective cohort study of 98 CD patients between 1964-1982. Sixty-one percent of patients were females and the median age at diagnosis was 41 years (range 2 to 74 yrs). Twenty-four percent of patients had unclassified CD and were treated with prednisone, since they did not respond to a GFD and had probable refractory CD. Twenty-three deaths occurred during the study (four due to malignancy). Nielsen et al. found that the 5-year survival rate was 88%, the 10-year survival rate 68.5%, and that mortality exceeded that of age- and sex-matched controls in the general population by a factor of 3.4 (p<0.025). There was no difference in mortality between males and females (2.7 and 2.3, respectively). Subjects who responded to a GFD had an extra mortality factor of 2.2 (p<0.025), and those who did not respond to a GFD had an extra mortality factor of 5.8 (p<0.005). Causes of death were poorly documented.

Peters et al.,<sup>331</sup> in a retrospective cohort study, compared 10,032 symptomatic subjects with CD who had been discharged at least once from hospital, to controls who were age/sex-matched for the calendar period cancer incidence rate. Fifty-nine percent were females. Mean follow-up was 9.8 years. Mortality was ascertained from a national death register. There were 828 deaths, with 419.3 expected, resulting in a SMR of 2 (95% CI: 1.8-2.1). Mortality risk decreased slightly with increasing number of years of follow-up (p for trend, 0.004). Mortality risks were increased for patients with NHL, cancer of the small intestine, autoimmune diseases (RA), allergic disorders, inflammatory bowel disorders, diabetes, and tuberculosis.

The first UK study was conducted in Birmingham, by Holmes et al.<sup>367</sup> Series I included 202 patients with idiopathic steatorrhea or CD, followed from 1965-1975. Ten patients had a positive biopsy for CD. Eleven patients could not be traced. In the 10-year period, 20 deaths were seen, with ten due to malignancy. Series II (1989) had 210 patients (94 males and 116 females) with biopsy-proven CD. Seventy patients were on a normal diet and 134 were on a GFD for more than 12 months at the end of the survey. Forty-three patients had died from all causes (expected was 20.82 deaths,  $p < 0.001$ ); 21 deaths were due to malignancy—13 reticulum cell sarcomas, six GI tract cancers and two other malignancies. Of the 21, 13 had a GFD for a mean of 41 months. Deaths from all malignancies, irrespective of diet, were statistically increased as a whole (expected 5.048 vs observed 21,  $p < 0.001$ ) and divided by sex (men expected 2.878 vs observed 12,  $p < 0.001$  and women expected 2.170 vs observed 9,  $p < 0.001$ ). Patients taking a normal diet were at increased risk of developing a malignant tumor ( $p < 0.05$ ). Clinical response did not predict the risk of developing malignancy.

Johnston et al.<sup>368</sup> examined CD in subjects from Northern Ireland using the Belfast MONICA project. MONICA I was the first survey, and began in Oct 1983 with 1,204 subjects. Of the subjects, 102 (52 males and 50 females, mean age 58.1 years) had positive serology, 72 consented to follow-up (34 males and 38 females) for 11.6 years (range 11.3-11.9 years), and 20 of the 72 gave consent to biopsy. Three subjects had villous atrophy. Thirteen subjects in MONICA I (seven males and six females) died (mean age at death 67.3 yrs; range 56-75 yr). Cause of death was obtained from death certificates from the General Register Office or General Practitioner records. Four patients died with malignant disease—pancreas, stomach, bile duct lymphoma and metastatic melanoma. None of the patients had CD, but all had positive serology. The number of cancer-related deaths and all cause mortality in the MONICA I follow-up study did not show an excess number of deaths compared with the general population of Northern Ireland.

Logan et al.<sup>366</sup> followed a prospective cohort of 653 patients with CD in Edinburgh between 1979 and 1981. All patients had biopsy-proven CD and mortality was ascertained from death certificates. Sixty percent of the patients were females and the mean follow-up was 13.5 years. Six percent of subjects were lost to follow-up. Clinical presentation was not reported. The subjects with CD were compared with age/sex-matched controls. There were 115 deaths from all causes; the expected number was 61.8 for a SMR of 1.9 (95% CI: 1.5-2.2). The increased mortality was greatest during the initial year after diagnosis and declined over time. The mortality rate for those diagnosed during childhood was similar to that of the general population.

## Quality Assessment

The majority of studies included in this objective were single group “before–after” studies, although some studies also included a comparative healthy control group. We could not identify any quality instruments for this type of study design and in general, this type of study is considered weak, particularly in the absence of a control group. Overall, however, the strength of the evidence for this objective was fair to good (Appendix J, Tables 6-8).

## Celiac 5: Promoting or Monitoring Adherence to a GFD

Out of 502 citations identified by the search strategy for the Celiac 5 objective, 189 met level 1 screening criteria (Appendix F). Of these, 86 met level 2 screening criteria and 20 studies met level 3 inclusion criteria.<sup>396-415</sup>

Of the included studies, eight studies offered correlation between serology and mucosal histological grade,<sup>397,398,403,404,407,409,413,415</sup> and eight reported on serology only.<sup>396,399-402,408,410,412</sup> Four studies focused on histologic changes without serology.<sup>405,406,411,414</sup> Nine of the included studies were conducted in an adult population, six in a pediatric or adolescent population, and five studies in mixed populations consisting of adults and children.

Included articles were divided by study population (adult/children/mixed), antibody type (IgG or IgA), and by antibody methodology (e.g., ME or HU).

None of the identified studies directly assessed the efficacy of a specific intervention on the promotion of adherence to a GFD. Six studies hint at interventions that could potentially be effective.<sup>416-421</sup> Four of these studies were applicable to a pediatric population and two studies were applicable to adults.

### Monitoring Adherence to a GFD

**Biopsy.** To evaluate serology in assessing adherence, some information regarding mucosal recovery on GFD must first be known. Although mucosal recovery is generally assumed to occur within 6 to 12 months after starting GFD, there is evidence that recovery may be slower and more incomplete than previously assumed.

In a mixed population, Wahab et al.<sup>405</sup> followed the histologic profiles of 158 patients after institution of a GFD. Histological recovery, defined as the absence of villous atrophy (Marsh 0-II), was seen in only 65% of the patients within 2 years. Within 5 years, 85.3% of patients showed recovery, and an incremental improvement to 89.9% occurred after 5 years. Of the 10.1% of patients not achieving histological recovery during the follow-up period, 11 had symptoms of CD and were therefore, considered to have refractory CD (7% of all patients). Patients with Marsh IIIb and IIIc histology initially had lower rates of recovery, compared with those with Marsh IIIa histology. In a subgroup analysis of 25 children, recovery seemed to occur faster—96% showed histological recovery within 2 years ( $p < 0.01$  vs adults) and 100% recovered in long-term follow-up. It is important to point out that the validity defining a Marsh II lesion as histological recovery is uncertain. If these patients were not included, rates of histological recovery would be even slower. Nonetheless, clinical improvement was seen despite the slow histological improvement.

An early study by McNicholl et al.,<sup>406</sup> is consistent with the finding of more complete mucosal recovery in children. Thirty-six children on a GFD for a mean of 5.8 years underwent duodenal biopsy. Mucosal morphology was normal in 16 (44%) patients, while the remainder of the patients had minimal changes. Villous atrophy was not seen. IEL counts were normal in 30 (83%) patients. A subsequent gluten-challenge confirmed the diagnosis in all 36 children.

Lee et al.,<sup>411</sup> in a retrospective cohort of 39 adult patients, also found incomplete mucosal recovery. After a mean duration of a GFD for 8.5 years (range 1 to 14 years), histology was normal in only 21% of patients, and partial and total villous atrophy was seen in 69% and 10% of patients, respectively. These patients were felt not to have refractory CD since they had a good

clinical response to the GFD. Also of concern were the results of serologic testing at the time of follow-up biopsy in 31 patients. Despite the relatively high number of patients with some degree of villous atrophy, IgG-AGA, IgA-AGA and IgA-EMA were negative in the majority of patients. In fact, 77% of the 31 patients having serologic tests were negative for all the listed serological tests. The exact number of these 31 patients who had some degree of villous atrophy was not reported, but would be expected to be similar to the overall numbers listed above.

Selby et al.<sup>414</sup> investigated whether the failure of mucosal recovery was due to noncompliance with a GFD. Eighty-nine adult patients with CD on a GFD for a mean in excess of 8 years underwent dietary assessment by a dietician, questionnaire and food diary. They were then classified as either Codex GFD, which allows up to 0.03% of protein from a gluten source, or no-detectable gluten GFD (NDG-GFD). Villous atrophy persisted at high rates in both groups, with 46% of those on Codex GFD and 40% of those on NDG-GFD having persistent villous atrophy. The patients in this study did not have clinical features of refractory sprue. Based on the fact that there were similar histologic profiles in both groups, the authors postulate that persisting mucosal abnormalities may be unrelated to gluten non-compliance. Of course, gluten intake in the NDG-GFD group undetected by study protocols cannot be ruled out.

**Serology.** The studies assessing the utility of serology in monitoring adherence can be divided into those with,<sup>397,398,403,404,407,409,413,415</sup> and those without<sup>396,399-402,408,410,412</sup> biopsy correlation. The studies without biopsy correlation are reviewed first. They establish an association between serologic positivity and patient compliance.

Bartholomeusz et al.<sup>396</sup> demonstrated higher rates of IgA-AGA positivity in non-compliant as compared with compliant CD patients in a mixed population. How compliance was ascertained is not described. Three of the 17 (17.6 %) patients compliant with a GFD for greater than 6 months were IgA-AGA positive as compared with 11 of 12 (91.6%) non-compliant patients. The PPV for non-compliance was calculated to be 78.5%.

Burgin-Wolff et al.<sup>400</sup> showed that, as expected, serology becomes positive with gluten challenge. One hundred and thirty-four children with CD underwent gluten challenge and were assessed for IgA-AGA and IgA-EMA-ME. At baseline, the rate of serologic positivity was 23% for AGA and 13% for EMA. Within 3 months of gluten challenge, 97% of children were positive for AGA and 65% positive for EMA. Between 3 months and 1 year, 85% of children were positive for AGA and 84% positive for EMA.

In a mixed population, Fabiani et al.<sup>408</sup> demonstrated significantly higher IgA-tTG-GP values in patients deemed to be non-compliant with a GFD as compared with compliant patients.

Bardella et al.<sup>399</sup> demonstrated that the positivity of various serologic markers falls in adults with duration on a GFD (Evidence Tables, Appendix I). The five groups in this study were untreated CD, poor GFD compliance, GFD less than 2 years, GFD greater than 2 years, and a control group. As expected, IgA-AGA, IgA-EMA-ME and IgA-tTG-GP were positive in virtually all untreated CD patients. Also, as expected, there was a low rate of positive serology in the control group, with a higher percentage being IgA-AGA positive than either IgA-EMA-ME or IgA-tTG-PG. In the poorly-compliant CD group, all were positive for all three serologic tests. In patients on a GFD less than 2 years, the rates of positive AGA, EMA and tTG were 40.9%, 54.5%, and 63.6%, respectively. In patients on a GFD for more than 2 years, the rates were 16.2%, 9.5% and 14.2%, respectively. The overlap of CIs intervals was such that no differences between the serologic tests could be determined.

Vahedi et al.<sup>402</sup> studied IgA-EMA and IgA-tTG in adult CD patients. Based on dietary inquiry, patients were divided into those on a strict GFD, those with minor transgressions and those with major transgressions. It was not reported whether the EMA was ME or HU, nor was it reported whether tTG was GP or HR. The median duration of GFD was 75 months. Among those on a strict GFD, 2.5% and 3% were IgA-EMA and IgA-tTG positive, respectively. Among those with minor transgressions, positivity was only 37% and 31%, respectively. Among those with major transgressions, positivity was 86% and 77%, respectively. The sensitivity of IgA-EMA for any dietary transgression was 66%, and for minor transgression it was 37%. For IgA-tTG, the sensitivities were 52% and 31%, respectively. No statistically significant differences were detected between the two serologic tests.

In a mixed population, Scalaci et al.<sup>401</sup> showed a low reliability for IgA-EMA in picking up dietary transgressions reported at interview. It is not reported whether ME or HU was used. In patients on a GFD for at least 6 months, only 11.1% those patients reporting one dietary transgression per month were positive, and only 19% reporting one dietary transgression per week were positive.

Fabiani et al.<sup>410</sup> showed a similarly low rate of serologic detection of non-compliance in screen-detected adolescents. Of 6,315 screened students, 28 biopsy-proven CD patients were found. Of these, 23 agreed to participate in a follow-up study. The mean duration of GFD was 23 months. IgG-AGA, IgA-AGA and IgA-EMA were measured. Whether EMA was ME or HU was not reported. Of the 11 patients reporting any dietary transgression, only two patients (19%) were positive for any of the serologic tests.

Pacht et al.,<sup>412</sup> in a similar study, showed different results. Seventeen children deemed compliant with GFD for at least 1 year were all IgA-EMA-ME-negative, whereas, 22 children deemed non-compliant were IgA-MA-ME-positive. This study suggests a much higher sensitivity for EMA than in other studies.

A number of further studies include serology and biopsy correlation. These are reviewed below.

Sategna-Guidetti et al.<sup>413</sup> looked at 47 adults with CD. All were IgA-EMA-ME positive at diagnosis. After 8 to 30 months of GFD, a second biopsy was taken and IgA-EMA-ME was remeasured. Total AGA was also measured in 39 patients. No patient in which the mucosa recovered to normal had a positive EMA. Only one patient with normal histology had a positive AGA (2.6%). EMA was positive in only five of 23 patients with partial villous atrophy, three of 13 patients with subtotal villous atrophy, and one of two patients with total villous atrophy. AGA was positive in only seven of 20 patients with partial villous atrophy, five of ten patients with subtotal villous atrophy, and two of two patients with total villous atrophy. The PPV of EMA for abnormal histology was 100%, but the NPV was only 23%. The PPV-AGA (total) for abnormal histology was 93.8%, whereas the NPV was only 25%. There was a clear inability of serology to adequately reflect the mucosal state in this study, and serology was negative in a significant number of patients with villous atrophy.

Valentini et al.<sup>407</sup> also found a significant rate of negative serology despite the presence of villous atrophy. In an adult population on a GFD for a mean of 9.9 months (range 6-12 months), 24 patients were IgA-EMA-ME negative on a GFD. Seventeen of these 24 patients (71%) had varying degrees of villous atrophy on biopsy (14 had partial villous atrophy and three had subtotal villous atrophy).

Dickey et al.<sup>409</sup> also showed that disappearance of IgA-EMA-ME did not necessarily indicate mucosal recovery. In adults on GFD for 1 year, IgA-EMA-ME was positive in only two of 22 (9%) with partial villous atrophy, and three of ten (30%) with subtotal/total villous atrophy.

Mengozi et al.<sup>403</sup> investigated adult CD patients on a GFD for 1 year. Most (95%) had a Marsh III histology at diagnosis. In general agreement with the prior studies, only 12% had normal histology at follow-up biopsy 1 year later. Fifty percent were Marsh I and 38% were Marsh II or III (individual results for Marsh II and III were not reported). IgA-EMA-ME, IgA-tTG-HR (four different assays: DRG Diagnostics, Eurospital, Immunodiagnostik, and Celikey), and IgA-tTG-GP were measured. Taking complete mucosal recovery as a negative biopsy and all other biopsies as positive, the authors looked at concordance of serology to biopsy results. Concordance for EMA, tTG1, tTG2, tTG3, tTG4 and tTG5-PG were 48%, 29%, 65%, 14%, 16%, 19%, respectively. The validity of a Marsh I or perhaps Marsh II histology being classified as positive is unclear, and it would have been interesting to know the corresponding concordance rates if Marsh 0-I and Marsh 0-II were considered normal.

Kaukinen et al.<sup>398</sup> similarly found a lack of correlation between IgA-EMA-HU, IgA-tTG-GP and histologic state. Of 87 adult patients on a GFD for a median of 1 year, 27 still had a Marsh III villous atrophy. Among those with Marsh III villous atrophy, EMA was negative in 74% and tTG was negative in 59% of patients. Furthermore, of 11 patients admitting regular dietary lapses, 55% were EMA and tTG negative. The sensitivity, specificity, PPV, and NPV of EMA for Marsh III villous atrophy was 26%, 93%, 63%, and 74%, respectively. The values for tTG were 41%, 88%, 61% and 77%, respectively.

The issue arises as to whether serology might more accurately reflect mucosal state in long-term follow-up. In patients on GFD over 5 years,<sup>398</sup> two of four patients with Marsh III villous atrophy were EMA and tTG negative, and five of nine patients (56%) admitting dietary transgressions were EMA and tTG negative. In this study, there was no clear advantage of tTG over EMA.

One study by Fotoulaki et al.<sup>397</sup> did show a good correlation between serology and mucosal state. In a mixed population of 30 patients, IgG AGA, IgA AGA and IgA-EMA-ME was measured after 12 months of GFD. Contrary to the preceding studies, all patients had either a Marsh I or II biopsy on a GFD, and all were IgA AGA and IgA EMA negative, while 40% were still IgG-AGA positive. The age range of patients in this study was much younger (1 to 24 years).

Troncone et al.<sup>415</sup> demonstrated that serology could miss dietary transgressions in children. Twenty-three adolescents were divided into four groups, depending on assessment of gluten intake. IgA-EMA-ME was present in seven of seven patients assessed to be taking >2 g/day of gluten. All seven also had villous atrophy. Conversely, four patients on a strict GFD, had normal histology and negative EMA. For patients with intermediate levels of gluten intake, one of six patients with a gluten intake of less than 0.5 g/d had a positive EMA. This patient also had partial villous atrophy. Three patients in this group had lesser mucosal abnormalities (increased IELs) and negative serology. For patients ingesting 0.5 to 2 g/d of gluten, three had a positive EMA; two of these had villous atrophy. Five patients had increased numbers of IELs.

## **Interventions to Promote Adherence to a GFD**

Anson et al.<sup>416</sup> investigated 43 Jewish Israeli children with CD, and their parents. Thirty-one of the children (70%) were judged compliant based on a combination of clinical symptoms,

biopsy and AGA. It is unclear if serology and biopsy was performed in all children to assess compliance. Parental knowledge was studied using a structured questionnaire. A significant positive correlation between the father being a professional and compliance was found ( $p < .01$ ). Parental level of education was also significantly correlated with compliance. Significant differences in parental ability to choose GFD items from a specific menu were found. Ninety three percent of parents of compliant children were able to pick all five GFD items out of an eight-item menu. This compared with only 67% of parents of non-compliant children ( $p < .05$ ).

In another parental questionnaire, Jackson et al.<sup>418</sup> found that 30 of 50 (60%) parents reported their children to be on a strict GFD. Dietary compliance correlated with membership in the Celiac Society ( $p < 0.0001$ ). It also correlated with parental score on an eight-question test related to knowledge of CD ( $p < 0.001$ ).

Ljungman et al.<sup>420</sup> found self-reported GFD compliance in children to be positively associated with knowledge of CD. In this study of 47 Swedish children, those deemed compliant scored 14.03 out of 15 on a knowledge test related to CD. This compared with an average score of 12.44 in the non-compliant group.

Lamontagne et al.<sup>419</sup> surveyed 617 past and present members of the Quebec Celiac Foundation. A final sample size of 234 was obtained. Self-reported compliance difficulty with a GFD was inversely correlated with a high level of confidence in treatment information from gastroenterologists and dieticians ( $p < .005$ ).

Hogberg et al.<sup>421</sup> looked at the effect age of diagnosis might have on compliance. In a study population of 29 adults with CD, 15 were deemed compliant with a GFD on the basis of a questionnaire and serology (IgA EMA, IgG EMA and IgA tTG). Eighty percent of patients diagnosed prior to age 4 were GFD compliant compared with 36% of patients diagnosed after age 4 ( $p < .05$ ). A drawback of this study is that serologic markers were collected about 3 years prior to the dietary questionnaire. This risks misclassification of patients if their compliance varied over time.

In an important study with relevance to outcomes of population screening, Fabiani et al.<sup>417</sup> showed a lower compliance in 22 adolescents identified by a mass screening program as compared with 22 age-matched controls with identified CD on the basis of symptoms. All patients had been prescribed a GFD for more than 5 years. Twenty-three percent of screen-detected patients reported being on a strict GFD as compared with 68% of those diagnosed with CD on the basis of symptoms. Patients in the screen-detected group were diagnosed at a later age (mean 14.0 yrs) versus patients identified on the basis of symptoms (mean 4.3 yrs).

A colouring book intervention has been developed to promote GFD compliance,<sup>422</sup> but the effectiveness of this intervention has not been assessed in children with CD.

## Quality Assessment

The majority of studies in this objective were of a “before–after” design. In this setting, this design may not pose a major limitation for monitoring studies, since the purpose of the study was to assess the change in serology and histology after introduction of a GFD. In this regard, the strength of the evidence for monitoring adherence to a GFD was fairly good. However, there is almost a complete absence of studies of interventions for the promotion of adherence to a GFD.

## Chapter 4. Discussion

### Celiac 1: Sensitivity and Specificity of Tests for CD

#### Serology

Systematic reviews of studies of diagnostic accuracy are similar in many ways to reviews of other study types, such as randomized controlled trials. However, important differences exist in large part because of the weaknesses inherent to the diagnostic-accuracy study design and its potential sources of bias.<sup>24</sup> In addition to these considerations, the topic of CD introduces further difficulties, and bias because of the nature of how the disease itself is defined, and the methods of patient selection for inclusion in the study. Ideally, a diagnostic-accuracy study should include a consecutive or randomly selected sample of patients from a clinically relevant patient population. That is to say, a study population whose characteristics match those of the population in which the test will ultimately be used, and both patients and controls are selected from this population. Unfortunately, selection spectrum bias is common in studies of diagnostic tests in general, and in practice it is easier for investigators to select cases and controls as separate groups in a case-control design. The practice of choosing cases that have previously been identified as having the disease, especially if more severe, introduces bias in the estimates of sensitivity (artificially raising it), while choosing completely healthy individuals as controls introduces bias in the estimates of specificity—artificially raising it as well.<sup>24</sup> The importance of these biases comes back to the issue of the relevant clinical population. If the test is to be used in screening healthy individuals, then the estimate of the reported sensitivity is higher than it should, but the specificity estimate is likely valid. On the other hand, if the test is to be applied to suspected cases of the disease, then the reported estimate of sensitivity may not be that far off, but the specificity estimate would be higher than it should. Other important sources of bias also exist in relation to the study population, such as the mix of other diseases present in the population with similar features as the disease in question, and ensuring an appropriate mix of disease severity in the tested population. This last point regarding disease severity is especially important for this report, and is discussed at length below.

Lijmer et al.<sup>423</sup> reviewed 11 meta-analyses of diagnostic tests, and assessed the characteristics of the included studies using multivariate regression analysis. The authors identified several threats to the validity of a diagnostic study's results. Case-control designs overestimated diagnostic odds ratios (DORs) by three-fold compared with studies using a clinical cohort (relevant clinical population). As well, studies that applied different reference tests to those with and without disease (in case control) or to those testing positive or negative (in relevant clinical populations) overestimated the DOR by 2.2-fold. Interpreting the reference test, with knowledge of the results of the test under study, overestimated the DOR by 1.3-fold. DORs from studies without adequate descriptions of the test or study population were 70% and 40% higher, respectively, than in studies reporting these details. Inadequate descriptions of the reference test were also identified as sources of bias.

With this information at hand we tried to minimize bias in this report, by using what some may consider fairly strict inclusion criteria which also eliminated many poor quality studies. We included both case-control studies and cohort (relevant clinical population) designs but grouped

**Note:** Appendixes and Evidence Tables are provided electronically at <http://www.ahrq.gov/clinic/tp/celectp.htm>

them separately. Studies were only included if an adequate description of the test under study and the reference test (biopsy, and a statement of the criteria defining CD) were provided, and both the cases and controls had to have had the same reference test (i.e., biopsy) applied at the same definition or level (i.e., biopsy grade).

The results of the systematic review demonstrate that in the studied populations IgA-EMA and IgA-tTG have sensitivities and specificities each in excess of 90% in both children and adults. In fact, the pooled specificity of EMA was 100% in adults using either EMA-ME or EMA-HU. In studies of children, the specificity of EMA using these two substrates was 97% and 95%, respectively, with overlapping 95% CIs, suggesting no statistical difference between these values. In adults, the pooled specificity of tTG-GP and tTG-HR were 95% and 98%, respectively, with overlapping CIs. Similarly, in children the specificities were 96% and 99%, again with overlapping CIs. Among the three studies in adults,<sup>32,45,70</sup> and four studies in children<sup>35,52,70,79</sup> that assessed both EMA and tTG, the specificities were nearly identical. Overall, these results suggest that EMA and tTG antibodies demonstrate extremely high specificities in both adults and children.

We identified a tendency towards greater variability in sensitivity between studies and between antibodies, compared with specificity. IgA-EMA-ME demonstrated sensitivities of 97% and 96% in adults and children, respectively. EMA-HU demonstrated a similar sensitivity of 97% in children, although the pooled estimate in adults was somewhat lower at 90%. Among two studies that assessed both EMA-ME and EMA-HU in adults, one demonstrated identical sensitivities of 95%,<sup>81</sup> whereas, the other<sup>57</sup> showed a lower sensitivity of HU compared with ME (90% vs 100%). This last study only included 20 untreated patients with CD, all of whom were ME positive, but two of whom were HU negative. None of the included mixed-age studies assessed both of these antibodies. Heterogeneity existed in the analyses of sensitivity of tTG-GP in the adult, but it is likely close to 90%. In children, the pooled estimate was 93%. The sensitivity of tTG-HR was 98% in adults and 96% in children, although in both cases the CIs included a low of 90%. In studies of mixed-age populations the sensitivity was 90%.

Estimates of the sensitivity of the IgG class antibodies of EMA and tTg suggest that these tests have poor sensitivities around 40%, although the specificities were quite high at around 98%. These findings suggest that this class of antibody would be inappropriate as a single test for CD, but may be useful in IgA deficient patients, or in combination with an IgA class antibody. One study that assessed the use of IgA-tTG-HR with IgG-tTG-HR found a sensitivity of 99% and a specificity of 100% for the combination.<sup>72</sup>

The analyses of all the AGA subgroups demonstrated significant heterogeneity, making pooled estimates impossible. Be that as it may, the sensitivity of IgA-AGA in adults is likely not much higher than 80%, but seems somewhat higher in children. The specificity likely lies between 80% and 90%, in adults and children, although the studies of serial testing of AGA followed by EMA or tTG in the prevalence section of this report suggest that the specificity is low as well. Even if one considers an optimistic range, the performance of IgA-AGA in both adults and children is inferior to that of the other antibodies discussed above.

The analyses of IgG-AGA suffered from significant clinical and statistical heterogeneity, making even general summary statements difficult. With this in mind, the typical sensitivity of this test likely lies below 80% in adults, and between 80% and 90% in children. The specificities are likely close to 80% in adults and between 80% and 90% in children with the same warning coming from the prevalence studies, suggesting that in the era of EMA and tTG, testing for CD with AGA has a limited role.

In assessing the PPV and NPV of these tests it is important to keep in mind the prevalence of CD in the tested population. In all the included studies, the prevalence of CD would be considered quite high, the minimum study prevalence was 9%, and many studies demonstrated prevalences in excess of 40%. In comparison, Fasano et al.<sup>15</sup> found the prevalence of CD in at-risk first-degree relatives of CD patients to be 4.55%. In general, based on our report, the prevalence of CD in high-risk groups such as suspected CD patients, and first-degree relatives was less than 20% (in non-tertiary centers), and the prevalence in patients with anemia and diabetes was generally less than 10% (Celiac 2 section). As expected, overall the included studies demonstrated the classic relationship between prevalence and the PPV and NPVs. At the relatively high prevalence of CD in these studies, the PPV (the chance that a positive test represents a true positive test) was quite high (>90%), but started dropping at a prevalence below 35% to values generally below 80%. Figures 21 and 22 represent the actual unweighted individual study data. It is therefore not surprising that the studies maintaining a high PPV at a low prevalence were all studies of small sample sizes. In the expected reverse relationship, at a prevalence above 45% the included studies showed a drop in the NPVs. However, in contrast to the situation with the PPV, the NPV would be expected to be between 95% and 100%, if not actually close to 100%, at the expected prevalence of CD in most clinical situations. The same relationship was seen when the pooled estimates of the sensitivity and specificity for each analysis group was used to calculate the PPV over a range of prevalences (Figure 23). Therefore, the potential problem with EMA and tTG serological testing lies in their performance in situations of “low” prevalence of CD (i.e., less than 20%, a value that is still higher than the prevalence of CD in most at-risk groups). Unfortunately, it was difficult to directly estimate the PPV of EMA and tTG based on the prevalence studies, such as the one by Fasano et al., since many of the studies only performed serology testing, or there was incomplete biopsy confirmation. However, in studies where it could be estimated using the best performing EMA or tTG serological test, the PPV ranged from 66.7% to 95.0%,<sup>209,211,212,214,215,220,223,323</sup> with all but one study having a PPV of less than 88.9%. Most of the studies had PPVs in the range of 70% to 80%. In this same group of studies that assessed the prevalence of CD in a general population, five studies showed 100% PPV, however, in all these studies there was less than ten confirmed CD cases,<sup>213,217,222,225,231,269</sup> and in three studies there were three or fewer confirmed cases.<sup>217,222,231</sup> The PPV of IgA/IgG AGA screening alone was considerably worse, and it was not uncommon in serial testing studies to see a ten-fold drop in potential cases when moving from AGA to subsequent EMA and tTG confirmation.

From the preceding discussion it is clear that in the diagnostic studies of the serological tests, the sensitivities of EMA and tTG antibodies for the detection of CD are quite high. Furthermore the specificities and NPVs are nearly perfect, making these antibodies appealing candidates for screening, as well as for the diagnosis of suspected CD patients. However, the pressing question is whether the reported high sensitivities and PPVs in these studies, and the enthusiasm surrounding these antibody tests, will hold true when these tests are applied to different clinically relevant populations. Of concern, is the true PPV of these tests when they are applied in populations with a relatively “low” prevalence (<10%-20%) of CD. This is an important issue, since the proportion of patients who would undergo unnecessary further testing will rise as the PPV falls. For example, if the PPV falls to a value of 80% (based on the examination of Figure 21), then 20% of screen-positive individuals would undergo unnecessary testing and/or treatments. From the estimates discussed above derived from the population screening studies,

and from the plots of PPV versus prevalence, it would appear that the PPV of these tests is potentially lower than the diagnostic test studies suggest it is.

The vast majority of studies, as well as our own TEP, required that the small intestinal mucosa show at least partial villous atrophy histologically for the diagnosis of CD to be made. In fact, most of the studies used patients with subtotal or total villous atrophy. Furthermore, inherent to the clinical definitions of classic, atypical, and silent CD described in the methods, is the requirement of having a “fully developed” villous atrophy. However, Fasano et al.,<sup>15</sup> in a large American prevalence study, found that only 34% of biopsied EMA-positive subjects had subtotal or total villous atrophy (modified Marsh IIIb or IIIc). In this study, no EMA-positive patient had a Marsh I lesion, 26% had a Marsh II lesion and 40% had a Marsh IIIa lesion. It is clear from this study, and from the discussion about biopsy later in this section, that true CD exists in patients with histologic grades less severe than classic Marsh III lesions, and that patients with silent CD do not have to have fully developed villous atrophy. The problem that then arises is whether the reported sensitivities of these antibodies holds in the majority of patients who have CD, yet with less severe histology. As well, if the sensitivity is not as high as reported then, by definition, the nearly perfect NPV of IgA EMA and tTG would also be expected to suffer.

This question has been answered in several studies that have correlated histology with the sensitivity of these serological markers, and also mirrors to some extent the antibody response that occurs once patients with CD are placed on a GFD. A description of results of these studies follows below, while a full narrative with tables is located in the Appendix H.

Rostami et al.<sup>16</sup> evaluated the diagnostic value of IgA EMA and AGA in 101 untreated patients with CD. The combination of the two tests showed an overall sensitivity of 76%. But, alarmingly, the sensitivity of EMA in these patients dropped precipitously with milder histological grades. EMA demonstrated a sensitivity of 100% in Marsh IIIc, 70% in Marsh IIIb and only 30% in Marsh IIIa. The authors did not consider patients with Marsh I or II lesions as having CD.

Tursi et al.<sup>424</sup> assessed the relationship of the histologic grade to tTG positivity in 119 consecutive adult CD patients defined by characteristic duodenal biopsy and “permanent gluten sensitive enteropathy.” In this study, the frequency of tTG-positivity (sensitivity) and mean tTG levels, were greatest with the highest modified Marsh grade, and dropped steadily with milder histologic grades reaching a low of only 8% positivity in CD patients with Marsh I lesions. The sensitivities of tTG in Marsh IIIc, IIIb, IIIa, and II were 96%, 84%, 56%, and 33%, respectively. In another publication, likely using the same population of “permanent gluten-sensitive enteropathy,” Tursi et al.<sup>425</sup> demonstrated similar results with AGA and EMA in a population of atypical CD (defined in methods). The sensitivities of EMA in Marsh IIIc, IIIb, IIIa, II, and I, were 97%, 92%, 89%, 40%, and 0%, respectively. The results with AGA showed a similar pattern, with the sensitivity dropping from 90% to 30% in Marsh IIIc to Marsh II.

Furthermore, in likely the same population of “permanent gluten-sensitive enteropathy,” Tursi et al.<sup>426</sup> found a relationship between clinical manifestation of CD and EMA sensitivity. EMA was positive in 77 of 96 (80.8%) patients with atypical CD and in 17 of 27 (63.0%) patients with silent CD. EMA was negative in patients with Marsh I lesions. Once again, assuming that all these patients with “permanent gluten-sensitive enteropathy” are truly CD patients, then EMA would miss 19% of atypical CD, and 37% of silent CD that were picked up on the basis of biopsy.

Demir et al.<sup>427</sup> studied the presentation and clinical features of 104 newly diagnosed Turkish children. EMA and biopsy correlation was available for 72 children. Similar to what was described above, EMA was positive in 92% of patients with Marsh III lesions versus 66.6% of patients with Marsh I-II lesions. Kotze et al.<sup>428</sup> assessed 47 symptomatic subjects with CD with intestinal biopsy, tTG and EMA antibodies. The authors found a statistically significant correlation between antibody titres of EMA and tTG, and histologic grades.

Hoffenberg et al.<sup>317</sup> studied a group of children at risk of CD who were part of a large prospective study of the genetic and environmental factors associated with autoimmune diseases. No relationship was found between Marsh grade and the genetic risk factor leading to screening, but a significant correlation was found between Marsh grade and tTG ( $r=0.57$ ,  $p<0.01$ ).

In a small case-control study assessing the diagnostic value of EMA, Sategna-Guidetti et al. also found that in patients with documented CD, EMA positivity correlated with the severity of the histologic grade.<sup>429</sup> In this study, EMA was falsely negative in 50% of CD patients without villous atrophy.

The findings of the large prevalence study by Fasano et al.,<sup>15</sup> however, require further discussion within this context. This study demonstrated a very high prevalence of CD of 0.95% (1:105) in asymptomatic not-at-risk adults using IgA-EMA. Additionally, 34% of biopsied EMA positive subjects had subtotal or total villous atrophy (modified Marsh IIIb or IIIc), 40% had a Marsh IIIa lesion, and 26% had a Marsh II lesion. No CD patient in this study had a Marsh I lesion, although this is in part likely due to how they defined CD. In any case, there are at least two ways to interpret these results. The first is that EMA testing does pick up the mild Marsh grades, given the high prevalence of CD in this study. While the second interpretation is that based on the preceding discussion and the serology monitoring data, this study has missed an unknown number of CD patients with milder histological grades. Unfortunately, since we do not have follow-up data on the screen-negative patients in this study, this question will be difficult to answer and arguments can be made on both sides.

The question that remains, however, is whether subjects with low grade histologic lesions are at the same risk of long-term complications as those with more advanced histologic grades. On the one hand, it is apparent that symptoms may not correlate with histologic grade but rather with the length of affected small bowel. When the distribution of histological grades is compared among patients with CD who are clinically asymptomatic versus symptomatic, the same distribution of grades is seen. For practical reasons, few of the studies we identified assessed length of small bowel involvement with CD. But another question arises: are patients with early Marsh lesions who test positive for serology the ones who have more extensive small bowel disease?<sup>430</sup> These questions add to the uncertainty regarding the true performance of serological testing, and whether missing early grade histologic lesions is important. Although we could not find direct evidence comparing outcomes in patients based on their histologic grades, it is not unreasonable to think that a patient with Marsh I-II lesions would still have an increased risk of CD complications (see Celiac 4 and 5 for some data regarding this point).

In summary, it is clear that from our pooled estimates of the included studies that IgA-EMA and IgA-tTG antibodies provide excellent specificity for the diagnosis of CD. However, the high reported sensitivities may only apply to the selected group of patients with villous atrophy. Furthermore, if the sensitivity is in fact lower when the entire biopsy spectrum of CD is considered, then the nearly perfect NPV of these tests, particularly in low prevalence populations, would also be expected to suffer. Finally, the PPV of these tests may not be as high as suggested when the tests are applied in low-prevalence populations, as demonstrated by our

estimates of PPV from the population screening studies. These potential limitations of serological testing can have profound implications for population screening initiatives, and verification of the sensitivity of these antibodies in a large population of CD patients showing the full histological spectrum is urgently required.

## HLA DQ2/DQ8

The HLA DQ2 haplotype represents the occurrence of the HLA class II heterodimer alleles DQA1\*0501 and DQB1\*0201. These typically occur in a cis position as HLA DR3-DQ2 or in a trans position as HLA DR5/DR7-DQ2. The HLA DQ8 haplotype DQA1\*0301/DQB1\*302 typically occurs in association with DR4. HLA DQ2 occurs in about 20% to 40% of the general population,<sup>9,10,15,100,135,136,138-141,143,146,147,150-157,159,167</sup> 48% to 65% of healthy relatives of patients with CD,<sup>158,161,164,166,167,169,172,177</sup> and in up to 73% of non-CD patients with type I diabetes.<sup>97,165</sup> In one study, 100% of patients with enteropathy associated T-cell lymphoma (EATCL) were HLA DQ2 positive.<sup>151</sup> Non-CD patients with Down Syndrome appeared to have the same frequency of HLA DQ2 as the general population.<sup>109,134,160</sup>

Populations of non-Western European descent demonstrated very wide variations in the frequencies of HLA DQ2 both in CD patients and controls.<sup>120,137,142,148,159,163</sup>

Overall, it can be seen that HLA DQ2 alone offers a sensitivity in excess of 90%, which can be improved to close to 100% if a strategy of testing for both HLA DQ2 and HLA DQ8 is utilized (either test being positive). The specificity of both tests together, or either test alone, is not as good as the sensitivity, falling in the range of 55% to 80%. The specificity becomes considerably worse if a population with a higher expected frequency of HLA DQ2 or HLA DQ8, such as first-degree relatives of patients with CD or patients with type 1 diabetes, is tested. The PPV, (the probability that a positive test represents a true positive result) of testing for HLA DQ2/8 in an average population is generally low. One, however, needs to keep in mind the dependence of predictive values on the prevalence of CD in the population to be tested. Therefore, in high-risk groups, such as first-degree relatives or patients with type I diabetes, the PPV tends to be higher. Conversely, it appears that the value of testing for HLA DQ2/8 is highest when a negative test is found. Given the high NPV of this test, average-risk patients can have the diagnosis of CD excluded based on a negative test. The situation is more complex in high-risk groups, since the NPV decreases with increasing prevalence, and with the recognition that there are HLA DQ2/DQ8-negative patients with CD. These findings, along with the cost of HLA testing, make routine use of this modality for screening or diagnosis inappropriate. However, the use of this test is most useful in cases of diagnostic uncertainty or as part of a multi-test gold standard in clinical studies.

## Biopsy

Unfortunately, we could not identify any studies that assessed the sensitivity or specificity of biopsy for the diagnosis of CD. This is perhaps not surprising considering that CD has historically been, and for the most part continues to be, diagnosed based on characteristic histological features. These histologic features have been classified and categorized by Marsh and others,<sup>1,16</sup> and criteria for the diagnosis of CD have been proposed,<sup>2</sup> and modified<sup>4</sup> (Appendix A). A biopsy showing characteristic features that improves with a GFD and recurs with gluten challenge is by definition the gold standard for the diagnosis of CD and therefore would be expected to be highly specific (some patients such as those with refractory sprue will not improve on a GFD but are still considered to have CD, so the specificity of this definition is not absolute nor perhaps completely valid). Although we do not have actual numbers, it would appear from the qualitative assessment of the identified articles that a biopsy classified as a Marsh IIIa or higher is likely to have a high specificity for the diagnosis of CD. However, as seen in the study by Fasano et al.,<sup>15</sup> such criteria would be expected to have a low sensitivity. Alternatively, one would expect that biopsy could have a very high sensitivity if a Marsh I lesion was used to define CD, though clearly given the wide differential of mild histologic changes (Table 1, Appendix A), the specificity would be expected to drop. Therefore, to try to estimate the sensitivity and specificity of biopsy, and particularly the lower histology grades, we have compiled some articles below that provide “uncontrolled indirect information” on this subject.

**Inter-observer agreement in the histologic assessment of small bowel pathology.** As previously described, there are several potential criteria for the diagnosis of CD. The original and modified ESPGAN criteria<sup>2,4</sup> appear direct. Most of these criteria, as well as the assembled TEP, felt that some degree of villous abnormality is required for the diagnosis of CD. In practical terms, even distinguishing between a Marsh II (no villous abnormality) and a Marsh IIIa (minimal villous changes) can be difficult.<sup>431</sup> This concern is further confounded by potential problems with the biopsy specimens themselves such as size, orientation, quality, and proper biopsy sampling. Hence, agreement between different pathologists and between the same pathologist at different times becomes important. The biopsy literature search identified a few articles that addressed pathologist agreement.

Weile et al.<sup>432</sup> assessed inter and intra-observer agreement among three experienced Swedish and Danish pathologists reading the small bowel histology of patients suspected of having CD. Ninety small-bowel biopsies taken by capsule near the ligament of Treitz from 73 children were selected at random from a larger sample taken from 1987 to 1994. The final diagnosis was made on the basis of evaluation of specimens by dissecting microscopy, formalin-fixed H&E-stained slides, intestinal disaccharidases, serology and clinical presentation. The initial biopsy reports from patient files were sorted into normal (66; normal or minor nonspecific abnormalities—85% were on a gluten-containing diet [GCD]), pathological (17; total and severe villous atrophy, all on GCD), and inconclusive (seven; because of poor orientation, small sample, or autolysis). Several years later (1997) the same three pathologists who read the initial biopsies, performed a second reading of the slides given to them in random order. In comparison with the first reading, the number of inconclusive readings rose from seven to 22, there was a corresponding fall in the number biopsies read as normal and pathological. Considering the overall biopsy reading and diagnosis, the Kappa statistics (a statistical measure of agreement “correcting” for chance<sup>433</sup>)

were (0.57, 0.63, and 0.75) for the three pair-wise comparisons of the three pathologists. These kappa values were reported to be “moderate” (for two out of the three agreement kappa scores) to “substantial” in terms of agreement, and suggest that agreement is far from perfect even when the same pathologist reads the same slide twice

Vilela et al.<sup>431</sup> also assessed inter-observer agreement among Brazilian pathologists in the diagnosis of CD. Three experienced masked pathologists independently read the slides of 34 patients with CD based on ESPGAN criteria. Agreement differed among the three possible pair-wise comparisons, with the best agreement occurring between pathologists A and C. Good to excellent agreement (kappa 0.61-0.85) was obtained for the assessment of villous structure. Reasonable to good agreement was observed for increased number of crypt mitosis (kappa 0.63), and decrease in the overall number of villi (kappa 0.47-0.53). However, agreement about the number of IELs using standard staining was weak (kappa 0.39). Interestingly, the agreement regarding overall histologic grade was also weak between two pathologist pairs, and reasonable to good for the last pair. As with the above study, it is difficult to comment on the generalizability of these results. The authors suggest that the number of CD cases seen was fewer than expected, and qualitative rather than quantitative measures of such parameters as villous height and IELs were used. Still, the findings suggest that agreement regarding the histologic grades should not be taken for granted.

Several authors have suggested that quantitating various histologic features, such as the number of IELs per 100 or more enterocytes, results in greater reproducibility of biopsy readings.<sup>434</sup> Authors that used quantitative criteria during studies of inter-observer agreement likewise showed better agreement than reported above.<sup>435-437</sup> These studies suggest that the use of quantitative methods in the reading and reporting of small bowel histology, by pathologists experienced in the reading of CD biopsy specimens, leads to greater agreement among pathologists and presumably more uniform and standardized reporting.

**Latent CD.** The presence of latent CD is a threat to the diagnostic accuracy of biopsy, since these patients truly have normal intestinal histology.

Stenhammar et al.<sup>438</sup> conducted an initial study of 100 first-degree relatives of 32 patients with CD. All 100 relatives were biopsied and two cases of CD were identified. In a 20-year follow-up study, Hogberg and Stenhammar<sup>247</sup> performed serological evaluation (AGA, EMA, tTg) on these same 100 relatives and their offspring, with positive results prompting intestinal biopsy. All relatives with initial “mild or moderate mucosal” abnormalities remained unchanged and were not considered to have CD. Eight new CD cases were identified, two of these were relatives of the two cases diagnosed in the first study. One of these, a parent of an affected child, had a grade II-III lesion in the first study that normalized on a GFD, and remained normal after 3 years of a GCD; she was not classified as CD, though in retrospect she likely represents a late relapser rather than transient gluten intolerance or a true latent CD. The other patient had a grade II lesion, but initially was not regarded as having CD because of the absence of symptoms. She was also found to be DQ2 positive. The remaining six newly diagnosed subjects were offspring of index CD cases and were not part of the initial cohort. In all, only two subjects of the initial biopsied cohort were “missed” in the first study. In retrospect, these subjects should have been included. This suggests that biopsy has the potential of high sensitivity and specificity for CD. Unfortunately, in the follow-up study, the number and HLA status of those with mild-to-moderate mucosal abnormalities (serology negative) was not reported, and since not all subjects

were rebiopsied it is also unclear if there is a group of serology-negative, initially normal biopsy relatives that have developed higher grade histology at follow-up, suggesting latent CD.

Maki et al.<sup>62</sup> likewise after an initial biopsy screen of 113 first-degree relatives of CD patients, discovered 13 relatives with villous atrophy and crypt hyperplasia. During a 3-year follow-up period another three relatives, with previously “normal biopsies” who were AGA positive, were found to have CD. Unfortunately, the authors do not report on the number of relatives with low-grade histologic lesions, and whether the new cases were in patients with completely normal (Marsh 0) lesions or normal in terms of absence of villous atrophy.

Troncone et al.<sup>439</sup> searched the medical records of 25 centres in Italy over a 10-year period to identify children with latent CD defined as either individuals with initial normal biopsies who later developed villous atrophy and responded to a GFD (Group 1), or people who were previously diagnosed with CD by ESPGAN criteria and who were subsequently found to have normal histology on a GCD for 2 years (Group 2). Nineteen such cases were found. All these patients had normal morphometric analysis and IEL counts on the initial biopsy. Four of the 14 GFD responders were considered at risk of CD (first degree, diabetes). The authors suggested that the five Group 2 patients could either represent true transient gluten-intolerance, or, in their opinion, more likely be late relapsers. These results of apparent post-pubertal recovery from CD are similar to those reported by Maki et al.<sup>440</sup> and by Schmitz.<sup>441</sup> Although the authors do not report on the number of charts or children screened, the findings of this study suggest that latent CD is very rare and unlikely to impact on the diagnostic accuracy of biopsy. It, however, underscores the importance of a time dimension in studies of CD, to accurately assess the true false positive and negative rates of diagnostic tests for CD.

**IELs with normal villous structure.** CD exists in patients with normal villous structure. The biopsy can pick up these patients on the basis of crypt changes and/or changes in the number and type of IELs.

Ferguson et al.<sup>442</sup> assessed the relationship of raised levels of IELs to the final diagnosis among children with diarrhea. The authors found a lack of correlation between IEL counts and morphologic grading of the biopsy. However, among seven children ultimately found to have no organic disease, all had normal IEL counts in the range of 14-25/100 epithelial cells (ECs). Two of three children with CD on a GFD also had normal IEL counts. In contrast, the values were elevated to greater than 38 IEL/100 ECs in untreated CD patients. High counts were also found in three children with failure to thrive or diarrhea of unknown etiology, and in three of nine children with giardiasis. Though in these cases, the mean values were lower than in the untreated CD cases. Interestingly, among 14 children with gastroenteritis, ten had abnormalities of the villi, crypts or lamina propria, but all but one had IEL counts within the normal range. Although, the differential of mild mucosal changes is large, this study suggests that one of the histologic features of CD can distinguish between CD and other mild enteropathies, and could potentially allow for a relatively high sensitivity by allowing CD to be defined by a low-grade Marsh lesion, while maintaining some of the specificity. This theme will be revisited in studies that follow.

Iltanen et al.<sup>136</sup> assessed the  $\gamma\delta$ + IELs in patients with and without CD. One hundred and seven patients were evaluated for possible CD. Twenty seven were found to have CD (25%) on the basis of ESPGAN criteria. As well, 28 biopsy-negative adults who underwent endoscopy for dyspepsia were used as controls. Table 46 details the main study findings.

**Table 46: Results of study assessing  $\gamma\delta$ + IELs in patients with and without CD<sup>136</sup>**

Test	Celiac (n=27)	CD excluded on biopsy (n=79)	Biopsy-negative controls (n=28)
Mean # of $\gamma\delta$ + IELs	40.4 (95%CI: 32.7-48.2)	6.7 (95%CI: 4.8-8.5)	1.6 (95% CI: 1.1-2.1)
Elevated $\gamma\delta$ + IELs (> 4.4 cells/mm)	27 (100%)	39 (49%)	n/a
AGA positive	21/26 (81%)	33/66 (50%)	n/a
Reticulin antibodies	27/27 (100%)	18/78 (23%)	n/a
HLA DQ2	19/21 (90%)	20/67 (30%)	

The mean density of  $\gamma\delta$ + IELs was significantly greater in CD patients compared with those patients where CD was excluded on biopsy, and compared with biopsy-negative controls. The density of these IELs was also significantly higher in patients with CD excluded on biopsy compared with controls. Because the authors used the ESPGAN criteria, which requires some degree of villous atrophy, the 50% of subjects with CD excluded based on this criteria who were AGA positive begs the question of how many of these were actually CD patients. However, based on the reported data, elevated  $\gamma\delta$ + IELs were calculated to have a sensitivity of 100%, but a specificity of only 50.6%, although the true specificity is likely higher. In the biopsy-negative suspected CD group, 66 out of the 79 underwent testing for HLA DQ2. Out of these patients, 46 tested negative for HLA DQ2. Given the high NPV of this test, it is likely that most of those patients do not have CD. Recalculating the specificity based on this assumption would raise its value, but unfortunately a breakdown of the number of patients with normal and elevated IEL in relation to HLA DQ2 was not reported. In any case, a better comparison would have been with the biopsy-negative control subjects, but the number of control subjects with raised IELs is not reported. Based on the mean density of IELs in this group, the number of patients with elevated IELs is likely to be low. During follow-up of the children suspected of having CD, but with normal mucosal biopsy and positive serology, four patients developed CD and responded to a GFD, further suggesting that this “control” group of patients with CD “excluded” on biopsy likely contained true CD patients who did not have villous atrophy. The results also suggest that the measurement of  $\gamma\delta$ + IELs can be valuable in the diagnosis of CD, and hints at the fact that the requirement of villous atrophy on biopsy may miss some subjects with CD, particularly if they have raised IEL levels, positive serology and are HLA DQ2 positive.

Kutlu et al.<sup>443</sup> also studied the density of  $\gamma\delta$ + IELs in untreated CD, treated CD and control patients (Table 47). The study population was made up of five children with classic CD with total villous atrophy and improvement on a GFD (Group A), seven patients studied after 1 to 11 years of a GFD with mucosal recovery (Group B), and 22 patients with CD by ESPGAN criteria who were left on a normal diet for 1 month to 10 years (Group C). The control group consisted of 15 children with various GI disorders other than CD, and 15 adults undergoing intestinal surgery for gastric and pancreatic disorders. The report aggregated data from groups A and C.

**Table 47: Results of study assessing density of  $\gamma\delta$ + IELs in patients with untreated CD, treated CD and control patients<sup>443</sup>**

	<b>Sub-total/total villous atrophy (n=18)</b>	<b>Moderate villous atrophy (n=7)</b>	<b>Normal mucosa (n=9)</b>	<b>Pediatric controls (n=15)</b>	<b>Adult controls (n=15)</b>
Diet	normal		GFD	n/a	
$\gamma\delta$ + IELs/100 ECs	14.8	17.5	14.5	3.1	3.6

The density of  $\gamma\delta$ + IELs/100 enterocytes was significantly higher in CD patients (15.4, n=34) compared with pediatric and adult control patients (3.1 and 3.6, respectively). However, the density did not correlate with histologic grade or with a GFD. Unfortunately, this study has several methodological flaws, and estimates of the sensitivity and or specificity of IEL in CD could not be derived. However, the study does indicate the potential usefulness of measuring  $\gamma\delta$ + IELs in the overall evaluation of biopsy specimens for possible CD, and again demonstrates that CD patients can have a biopsy with normal villous structure which can be distinguished from normals by assessing the number of IELs.

In an interesting comparative study of the correlation of IELs with AGA positivity by ELISA, O’Farrelly et al.<sup>444</sup> studied 25 patients who had typical histologic features of CD and who were subsequently placed on a GFD. Ten of these were AGA positive, whereas 15 were negative. The second group consisted of 28 subjects suspected of CD but with “normal” small bowel histology. Twelve were AGA positive and 16 were negative. Increased levels of IELs were seen in both AGA positive (82.5) and negative (74.3) CD patients (difference not significant). On the other hand, among those with “normal” histology, AGA positive subjects had a significantly higher density of IELs than those who were AGA negative (42.4 vs 17, p<0.001). This data suggests that subjects suspected of CD with normal villous atrophy who have raised IEL densities should be further evaluated for CD, especially if serology is positive. These are also the types of patients where response to a GFD may be invaluable to firmly establish the diagnosis and help clarify the diagnostic value of low-grade histologic lesions.

Saputo et al.<sup>445</sup> compared the density of IELs between patients with confirmed CD, those undergoing investigation for CD, and control subjects (Table 48). The normal IEL range was determined to be between 4.68 and 17.60 based on the control group mean +/- 2 SD.

**Table 48: Results of study comparing density of  $\gamma\delta$ + IELs in patients with confirmed CD, those undergoing investigation for CD, and control subjects<sup>445</sup>**

	<b>Confirmed CD (n=9)</b>	<b>CD under investigation (n=40)</b>	<b>Controls (n=143)</b>
IELs/50 ECs	68.55	51.21	11.14
# with raised IELs (estimated from figure)	9	40	2

These results again suggest the usefulness of IELs in the evaluation of histology of patients being assessed for CD, and suggest a sensitivity of raised IELs of 100%, and a specificity of 98.6%. Unfortunately, the authors do not report the number of individuals under investigation for CD who actually ended up having CD, so as to estimate the diagnostic parameters in this group.

Similarly, Jarvinen<sup>436</sup> studied IEL density and villous/crypt ratio in 928 Finnish patients with a suspicion of CD, and 59 biopsy-negative controls with dyspepsia (Table 49). CD was diagnosed on the basis of a suggestive small intestinal biopsy showing some degree of villous atrophy with subsequent later improvement on GFD. The main results excluding DH patients are presented below.

**Table 49: Results of study comparing IEL density and villous/crypt ratio in patients with a suspicion of CD, and 59 biopsy-negative controls with dyspepsia<sup>436</sup>**

	Untreated CD (n=138)	Treated CD (n=198)	Suspicion of CD with normal villi (n=545)	Controls (n=59)
CD3 + IELs	68*	40*	26	30
$\gamma\delta$ + IELs	19.8*	12*	3.2	2.3
Villous/crypt ratio	0.6*	1.9*	2.8	3.0

\*statistically different from control

The authors noted that using a cut off of 37 cells/mm for CD3+ and 4.3 cells/mm for  $\gamma\delta$ + IELs, the sensitivities and specificities were 93% and 73% for CD3+, and 93% and 88% for raised  $\gamma\delta$ + IELs, respectively. The PPVs and NPVs for raised  $\gamma\delta$ + IELs were 95% and 85%, respectively, in this population. However, these results are based on the well-documented clear-cut CD group, and did not take into consideration the CD patients that might be in the suspicious but normal villi group. Among the patients with a suspicion of CD but normal villi and high  $\gamma\delta$ + IELs (>4.3), 28% were EMA positive compared with only 8% with normal  $\gamma\delta$ + IELs (<4.3). Unfortunately, the outcomes of these patients are not reported, so one cannot comment further based on this study about the usefulness of IELs in Marsh I or II patients.

Mino et al.<sup>446</sup> assessed the density of IELs in routinely stained specimens compared with specimens stained with the readily available CD3 antibody. Twenty-eight subjects with architecturally normal duodenal biopsies, which were well-oriented and demonstrated greater than 20 IELs/100 ECs were included in the study. AGA, EMA and tTG antibodies were measured. Subjects were divided in the groups listed in Table 50. Controls consisted of seven normal individuals, two patients with reflux, and two patients with irritable bowel syndrome.

**Table 50: Results of study assessing IEL density in routinely stained specimens compared with specimens stained with the CD3 antibody<sup>446</sup>**

	CD (n=8)	Treated CD (n=4)	Non-CD (n=16)	Controls (n=11)
Mean age	33.5	46.3	46.4	39.1
IELs/100 ECs by H&E staining	42.1	29.2	36.8	Not increased
IEL/100 ECs in villous tip by CD 3 staining	47.5	29.4	33.2	8.2

There were no statistically significant differences between any of the groups when IELs were measured with H&E staining. However, all pair-wise comparisons were statistically different, except between the treated CD group and the non-CD group, when villous-tip IELs were counted with CD3 staining. The authors conclude that villous tip IELs are more specific indicators of CD, particularly with CD3 staining (which is more readily available than staining for  $\gamma\delta$ + IELs),

and suggest that the specificity of low grade Marsh lesions could be improved by these techniques.

In a similar study, Goldstein et al.<sup>447</sup> compared IEL density and villous distribution among patients suspected of CD. Twelve patients were diagnosed with CD based on histologic features and response to a GFD, whereas in 66 patients the diagnosis of CD was excluded based on biopsy, and supported by negative serology (and in some cases a lack of response to a GFD). Control cases consisted of patients with dyspepsia who underwent endoscopy and biopsy. The main results are summarized in Table 51.

**Table 51: Results of study comparing IEL density and villous distribution among patients suspected of CD<sup>447</sup>**

	<b>CD (n=12)</b>	<b>Non-CD (n=66)</b>	<b>Controls (n=24)</b>
Mean age	35.2	36.1	34.5
Iga EMA	8	3 (no response to GFD)	n/a
IgA AGA	5	13 (all EMA neg.)	n/a
Villous tip IELs	11.6	4.3	2.2
IELs distributed evenly along the villi	9/12 (75%)	3/68 (4%)	0
n/a = not applicable			

The authors found that the mean villous tip IEL density was significantly greater in the CD group than in the non-CD and control group. A more even distribution of IEL along the villi was also found to be significantly more common in the CD group compared with the other groups. However, this last point is controversial. Unfortunately, given that this is a small study, the authors did not look at differences in these characteristics among CD patients with different histologic grades.

Kuitunen et al.<sup>448</sup> compared the histologic features of children with untreated CD, treated CD, other GI disorders (cow's milk allergy, DH, congenital lactase deficiency, acrodermatitis enteropathica, and giardiasis) and a group of control subjects without GI pathology. Of the 52 children with CD in this group, all had severe villous atrophy. CD patients had the lowest enterocyte height, and the most intense IEL infiltration of the studied groups. The authors found no overlap between CD patients and controls for the density of IELs, villous height, crypt depth, and villous height to crypt depth; all these parameters were statistically different between the CD patients and controls.

Kaukinen et al.<sup>449</sup> studied 96 consecutive adults found to be ARA or AGA positive and compared them with 27 ARA- and AGA-negative patients with dyspepsia. All patients underwent duodenal biopsy and CD was diagnosed on the basis of a villous height to crypt depth of less than two and crypt hyperplasia. Twenty-nine patients met their biopsy criteria of CD (18 ARA- and AGA-positive patient, nine ARA-positive patients, and two AGA-positive patients). The 29 CD patients were placed on a GFD and of the 21 who were rebiopsied at 6 to 12 months, all showed unequivocal histologic improvement. The mean density of IELs in CD, serology positive, biopsy negative, and control patients were 87, 38, and 25 cells/mm, respectively. These numbers were statistically different. The mean density of  $\gamma\delta+$  IELs among the CD patients was 16.6. Eleven serology-positive patients with normal villous structure (presumably Marsh I and II) expressed HLA DR and had higher levels of  $\gamma\delta+$  IELs (mean of 13.4 cells/mm) than the non-CD controls. A repeat biopsy (time unspecified) was performed in 12 serology-positive patients

with normal villous structure at the time of the first biopsy. Ten of these had raised  $\gamma\delta+$  IELs density on biopsy (Marsh I or greater). Five of these 12 were found to have villous atrophy (Marsh IIIa or greater). This study further illustrates the later development of CD in subjects with mild histologic changes, and suggests that although the specificity of villous atrophy may be high (all patients responded to a GFD), the sensitivity of villous atrophy (Marsh IIIa or higher) is lower than that of the serological test used in this study. This suggests that using a lower biopsy cut-off grade could improve sensitivity, albeit at the cost of specificity.

Using another approach, Wahab<sup>450,451</sup> identified 38 patients with symptoms of malabsorption who only demonstrated raised epithelial lymphocytes on duodenal biopsy (Marsh I). These patients were given a gluten challenge of 30g/day for 2 months, while maintaining their normal GFC. Twelve of 38 patients developed worsening mucosal lesions of crypt hyperplasia and partial or subtotal villous atrophy. After institution of a GFD all 12 patients showed improvement of their malabsorption, and improvement of their histology, suggesting that they truly had CD.

The same authors,<sup>451</sup> similarly studied 27 patients referred for malabsorption who were found to have a Marsh II lesion. HLA DQ2 or DQ8 was found in 21 of 27 patients (78%). The authors motivated 25 patients to follow a GFD, and all showed symptomatic improvement. The two patients who refused the GFD progressed to a Marsh IIIa lesion at follow-up. Although these data provide evidence of the true existence of CD in patients with Marsh II lesions, the frequency is unlikely to be as high as reported here. The high NPV of HLA DQ2/DQ8 suggests that at least some of the six testing negative likely don't have CD. In any case, this study adds further evidence to the notion that a Marsh III cut-off will miss some patients with CD.

In a very interesting study, Mahadeva et al.<sup>452</sup> identified all duodenal biopsies performed over a 1-year period with increased levels of IELs, yet normal villous structure. Biopsies were formalin fixed and stained with H&E. Other biopsies showing at least subtotal villous atrophy and increased IELs were considered as "suggestive of CD." Two normal control duodenal biopsies for every case of increased IELs with normal villous structure were also obtained. The upper limit of normal for IEL levels in this study was 22 IELs/100 ECs. Out of 626 biopsies assessed, 14 (2.2%) were found to have increased IEL and normal villous structure, whereas 15 (2.4%) cases of CD were identified. Normal histology was found in 502 (80.2%) of the biopsies. The biopsies with raised IELs had a mean of 38 IELs/100 ECs (range of 27-46). Control biopsies on the other hand had a mean of 12.4 IELs/100 ECs (range of 2-20). The presence of GI symptoms did not differentiate those with raised IELs from controls or CD patients in this cohort. Six of the 14 patients with raised IELs had positive EMA and/or unexplained anemia and were suggested as having "latent" CD by the authors. Unfortunately, follow-up in this group was incomplete with only three of these patients undergoing repeat biopsy. As with the previously described studies, the presence of patients evaluated for possible CD who have isolated increased IELs may contain a subset of true CD patients. In fact, if one assumes that the six EMA positive subjects with raised IELs do in fact have CD, then one can estimate that using a lower histologic grade to define CD in this population would have resulted in a sensitivity of biopsy of 100%, and a specificity of 98%—since only eight patients out of the studied sample of 531 would have been misclassified as having CD when in fact they did not. Of course, the expected specificity would not be as high as the one produced in this exercise since the authors do not tell us the histologic features or the diagnoses of the remaining 95 patients (626 biopsied, minus 502 normal, minus 15 CD, minus 14 raised IEL and normal villous structure = 95). However, taking this exercise further, if we assume that all of the other 95 patients were

misclassified as having CD, then the specificity would drop to a still respectable 83%. Clearly, this type of study is the starting point in assessing the diagnostic parameters of the biopsy itself as a test. However, what is needed to fully assess biopsy as a test is a clearer measure of the false positive and negative rates. This can only be accomplished by using a battery of tests (biopsy, serology, HLA) to act as a gold standard to initially identify all potential cases, and then a follow-up period (response to GFD or gluten challenge) to assess the permanence of the diagnosis and the utility of biopsy at various cut-offs when used alone.

Kaukinen et al.<sup>453</sup> performed a study partially fulfilling the above requirements. Ten patients with suspected CD but only Marsh I or II lesions were compared with 27 biopsy-normal controls. The suspected cases were assessed before and after a GFD. The main results are presented in Table 52.

**Table 52: Results of study assessing patients with suspected CD and Marsh I or II, before and after a GFD<sup>453</sup>**

	<b>Histology</b>	<b>EMA+</b>	<b>TTG+</b>	<b>HLA DQ2</b>	<b><math>\gamma\delta</math>+ IELs</b>
Initially	Marsh III – 2 (patchy) Marsh II – 7 Marsh I – 1	8/10	9/10	9/9	Marsh III – 25 cells/mm Marsh I-II – 13 Controls – 1.4
After GFD	All Marsh II re- biopsied Marsh I – 2 Marsh 0 – 5	0/10	1/10 (Slightly elevated)	Same	Reported as decreased values not reported.

Although this is a small study with possible selection bias, the authors demonstrate that in a subset of patients suspected of having CD but without villous abnormalities, CD was diagnosed in all on the basis of a response to a GFD. Raised levels  $\gamma\delta$ + IELs, positive serology, and HLA DQ2 positivity, supported the diagnosis of CD. Patients with CD and Marsh I-II lesions had significantly higher levels of IELs than controls. Unfortunately, this study did not include a larger sample of patients with Marsh I-II histology that included serology-negative subjects. Although it is clear based on this study that CD can exist in patients with Marsh I-II lesions with raised  $\gamma\delta$ + IELs, it is difficult to generalize these results to an unselected sample of suspected CD patients.

In a somewhat complicated but important study, Kuakinen et al.<sup>98</sup> assessed 271 patients with suspected CD by biopsy. Forty-five patients were classified as having definite CD on the basis of a Marsh III lesion. While in 136 patients, CD was excluded on the basis of a Marsh 0 lesion and normal levels of  $\gamma\delta$ + IELs. The remaining 76 patients had an uncertain diagnosis of CD based on biopsy (absence of villous atrophy) and underwent HLA DQ2 and DQ8 testing. In 59 of these patients, there were minor mucosal lesions or positive serological markers, while 17 were already on a GFD prior to biopsy. CD was excluded in 11 of these 17 patients on a GFD. Of the remaining 59 patients, CD was excluded in 22 because of a negative HLA DQ2/8 given the high NPV of this test, whereas 37 were DQ2/8 positive and remained with the suspicion of CD. Overall, CD was excluded in 33 of 76 patients. Among patients suspected of CD, but without villous atrophy, Marsh I-II lesions were found in 20 DQ2/8-positive patients versus in five DQ2/8-negative patients. Elevated levels of  $\gamma\delta$ + IELs were found in 20 patients who were DQ2/8 positive compared with seven patients who were DQ2/8 negative, and IgA-EMA was found in 16 patients who were DQ2/8 positive compared with 0 patients who were DQ2/8 negative. Although data is not provided for some patients, one can estimate the sensitivity of

using a Marsh III cut-off. We know that CD was diagnosed outright in 45 out of 271 patients, but with subsequent testing a further 37 patients were found to be positive for HLA DQ2 or DQ8. At least 16 (EMA positive) and likely 20 (increased IEL counts) of these patients likely have CD. Based on these assumptions, the sensitivity of a Marsh III cut-off is between 69% (20 DQ2/8 patients with increased IELs have CD) and 74% (16 EMA and DQ2/8-positive patients have CD). The sensitivity would be lower if more of the DQ2/8 positive patients turned out to have CD. The specificity of that cuff-off would appear to be 100%, although we are not told if the Marsh III patients all improved on a GFD. Clearly using a biopsy cut-off lower than Marsh III would have increased the sensitivity, but unfortunately we are not given enough information to estimate this reliably.

This study with its battery of tests comes closer to the ideal design to estimate the diagnostic characteristics of biopsy, but unfortunately, it has significant shortcomings. To be fair the intent of the study was not to determine the sensitivity of a Marsh III cut-off. However, for the sake of future studies in this area, several design changes could have allowed this estimation. This study had two important positive aspects: it used a relevant clinically important population of patients suspected of having CD, and all the subjects underwent biopsy. However, it would have been ideal, if all the subjects also underwent HLA testing and serology. Furthermore, a follow-up of positive and negative patients, and or the assessment of the response to a GFD or the use a gluten-challenge in difficult to diagnose patients, would have allowed for the estimation of false positive and negative cases.

**Relationship of serology to histology.** As the data from the previous discussion suggests, CD clearly exists in patients with histological grades milder than Marsh IIIa. The fact that the sensitivity of biopsy is improved by using a lower grade as a cut-off brings up an important question. If the preceding statement is true, then what test is most sensitive for detecting CD with mild histologic changes—biopsy or serology? The issues surrounding this discussion have been addressed in the later portion of the serology discussion section, and a detailed narrative summary of the studies of the relationship of serology to histology can be found in Appendix H. However, to summarize, data from these studies as well as some data from Celiac 5 suggest that the sensitivity of serology drops with milder histologic grades, and suggests that serology alone would miss CD patients with mild histology grades.

In summary, CD exists in patients with histology grades less than Marsh IIIa. The sensitivity of biopsy at a Marsh IIIa or higher cut-off is likely less than that of serology with EMA or tTG. If lower Marsh grades are used, the sensitivity of biopsy increases, and it is possible that if morphometric techniques including assessing IEL densities are used, the specificity may not suffer greatly. Ultimately, the question of the true sensitivity of biopsy can only be answered with a well-conducted study that attempts to identify all possible CD patients in a given clinically relevant population using multiple simultaneous tests (e.g., serology, HLA) in addition to biopsy. All patients, those who clearly have CD, those in whom CD seems excluded, as well as equivocal cases, need to be followed for the assessment of the permanence of their “diagnoses.” Equivocal cases could also be considered for further testing, either with assessing response to a GFD or gluten challenge, to help in the clarification of their diagnosis. Although there are other potential variables to consider, with these measures, assessment of the false positive and false negative rates of biopsy, and hence a clearer estimate of the sensitivity and specificity, can be determined.

## Celiac 2: Incidence and Prevalence of CD

### Incidence in the General Population—Different Geographic and Racial/Ethnic Populations

The crude incidence of CD among western European and North American countries over the past 25 years has varied between 1 and 51 per 100,000, and the cumulative incidence by age 5 between 0.118 and 9 per 1,000 livebirths. Notable variations in CD incidence have not only been striking between neighbouring countries, such as is the case for Sweden and Denmark, but also between time periods for the same region, such as was noted in the UK between the 70's and 80's as well as in Sweden over the 90's.

It is important to note that there were important methodological differences among the studies, from using patient registers<sup>200</sup> to actively screening at-risk patients.<sup>128</sup> Clinical practice also varied between time periods and regions. The advent of serological testing in the early 90's changed attitudes towards screening and identifying populations at risk with resulting higher detected incidences of CD. In some studies, active efforts were made to detect CD among asymptomatic subjects, such as the case in Finland where all subjects referred for endoscopy underwent small intestinal biopsy, independent of the cause for referral.<sup>199</sup> The incidence of CD is also expected to vary according to the genetic make-up of the studied population, although the prevalence of at-risk HLA haplotypes was only noted in one study.<sup>128</sup> These observations also highlighted the importance of dietary factors in triggering so-called CD epidemics among genetically predisposed populations. It would appear that breastfeeding bears a protective role, while early introduction of gluten, as well as the amount of gluten content in the diet may promote the early serological and pathological manifestations of CD. It is unknown whether these factors trigger an earlier expression of a disease which would become manifest anyway, or whether they trigger the appearance of a disease which may not otherwise occur, even later on in life.

In conclusion, caution should be exercised when extrapolating the noted incidence for one given region to a whole country, in particular in countries such as the US where there are differing population ethnicities among regions, between rural and urban areas, as well as between small and large cities. However, it remains that the true incidence and prevalence of CD are if anything greater than reported in clinical settings, since observations derived from screening and case-finding efforts were consistently greater than those relying on the diagnosis of clinically suspected cases. Lastly, it is important to bear in mind that, considering the large proportion of subjects with silent CD (the so-called celiac iceberg), observed incidences will depend upon the efforts spent screening cases, as is well illustrated by the difference in the relatively low incidence observed over 30 years in Olmstead county, where the majority of cases had clinically overt disease, as opposed to the very high incidence noted in Denver Colorado that resulted from a systematic and prospective screening of newborns and children at risk.

## **Prevalence in the General Population—Different Geographic and Racial/Ethnic Populations**

The included prevalence studies demonstrated important differences in execution, tests for prevalence assessment, and in patient sampling, making pooled estimates of prevalence unreliable. Furthermore, the discussions regarding the operational characteristics of the serological tests themselves, the influence of disease prevalence on the PPVs and NPVs of these tests, and the criteria by which clinical and histological CD is defined, have to be kept in mind when considering the results of this section. The last point regarding the histologic definition of CD is particularly important in this setting, since one-third of the included studies did not seek histologic confirmation of serology diagnosed CD, and in another four studies, a large proportion of the serology-diagnosed patients did not undergo histologic confirmation. Finally, because of the previously discussed concerns regarding the sensitivity of serological tests in lower grade histological lesions, and the potential for missing true CD patients based on histologic criteria that require villous atrophy, the true prevalence of CD in the general population may still have been underestimated in these studies.

With these points in mind, the results of this report suggest that the prevalence of CD in the general unselected populations of North America and Western Europe is quite high and likely falls within the range of 0.5% to 1.26% (1:200 to 1:79). Smaller sample-size studies tended to give wider estimates ranging from 0.17% to 2.67%. Among the studies from the US, the range of prevalence was 0.4% to 0.95% in adults, and 0.31% in children. In Italy, the range of prevalence was between 0.2% and 0.8%, whereas the Scandinavian countries, Ireland and the UK, tended to show a higher prevalence of CD of approximately 1.0% to 1.5%, although there were also studies from those same countries that showed a lower prevalence.

In summary, the prevalence of CD in Western populations is likely close to 1% (1:100) and may be higher in Northern European countries. A firm estimate of the prevalence is impeded by between-study differences, and uncertainties regarding the performance of serological tests at these relatively “low” prevalences, compared with the 40% to 60% prevalences in the studies of the diagnostic characteristics of these same tests (Celiac 1).

## **Prevalence of CD in Patients with Suspected CD**

The prevalence of CD is greatly affected by the study population. In populations where the diagnosis of CD is clinically suspected, either because of the presenting symptoms or the presence of associated conditions, its prevalence varied between 1.1%<sup>307</sup> and 50%.<sup>301</sup> This illustrates well how the patient selection process will influence the prevalence of the condition—studies reporting very high prevalence had populations that originated from tertiary, referral centers, while studies reporting low prevalence had populations that tended to originate from general practice. Although the report of the large American study of CD prevalence in at-risk and not-at-risk individuals did not specify how their subjects had been gathered,<sup>206</sup> we can assume that these were derived from community practices, considering their large number.

Altogether the variations between the study populations, the diagnostic criteria and the study design were such that it was inappropriate to statistically combine the observed prevalence to obtain a summary measure. Nonetheless, considering studies with subjects who were not originating from a specialized referral centre, the observed prevalence of CD in subjects with symptoms or conditions associated with CD ranged between 1% and 4%.

## Prevalence of CD in Patients with Type I Diabetes

The findings of this report suggest that the prevalence of CD in patients with type I diabetes is higher than the prevalence in the general not-at-risk population. These findings appear to be consistent across the studied age groups, and by the screening method. Although the magnitude of the risk of CD among patients with diabetes varied to some degree from study to study, many of these differences can be explained by issues of study design. An overall pooled estimate of the prevalence of CD in diabetes could not be calculated due to these study differences.

Almost uniformly, the prevalence of CD by biopsy was to some degree lower than the prevalence by serology. This may reflect the fact that there were some false-positive serology results in the prevalence of CD seen in these studies. Additionally, all these studies used some degree of villous atrophy to make a diagnosis of CD, which may underestimate the true biopsy prevalence of CD, since CD patients with Marsh I or II lesions were not considered. The prevalence by biopsy seemed to be lower still in studies that require subtotal or greater villous atrophy to make a diagnosis of CD. Furthermore, the prevalence by biopsy was uniformly low, as would be expected, in studies in which a large proportion of the screen-positive patients did not undergo biopsy. In these studies, the prevalence by biopsy was typically less than two percent, which likely represents an underestimation of the true prevalence of CD in this population.

The prevalence of CD by serology varied greatly with lows near 1% and highs close to 12%. However, the majority of studies, and particularly those using EMA or tTG, demonstrated prevalences in the range of 4% to 6%. Although the prevalence by biopsy also varied, the typical study with complete biopsy confirmation of serology-positive patients demonstrated prevalences in the range of 3% to 6%.

This evidence report has gathered the reported studies examining the relationship between diabetes and CD. Baring in mind the limitations noted above, we believe there is sufficient evidence to show individuals with type I diabetes are at higher risk of CD. The prevalence of CD in this population is likely between 3% and 6%.

## Prevalence of CD in Relatives of Patients with CD

The prevalence of CD in relatives of patients with CD is elevated, both in first-degree and second-degree relatives. That prevalence varied between 2.8%<sup>246</sup> and 17.2%<sup>235</sup> in first-degree relatives and between 2.6%<sup>206</sup> and 19.5%<sup>235</sup> in second-degree relatives. The prevalence remains elevated among first cousins, and was 17% in the only study of these subjects.<sup>235</sup>

We have identified several factors that can be responsible for the variation in the observed prevalence. In particular, the selection of the families, of the relation to the index case, the diagnostic criteria, and the choice of study design.

The prevalence of CD appears to be generally higher in families with multiple known cases, such as reported by Book et al.<sup>235</sup> and Mustalahti et al.<sup>241</sup> Most other studies referred to their subjects as originating from a “CD family,” without systematically documenting the proportion of families with multiple known cases of either CD or DH.

As expected, in studies that looked at various degrees of relation, the risk was greatest in the first-degree relatives.<sup>206,235,239</sup> However, Book et al.<sup>235</sup> found no difference in prevalence

between second-degree relatives and first cousins, i.e., 19.5% (95% CI: 15.1-23.9) and 17.0% (95% CI: 6.4-27.7), respectively.

Also, the age of the screened population might be a factor even beyond infancy, since it has been observed by prospective serological<sup>248</sup> and histological<sup>237</sup> follow-up studies that the serological and histological markers of CD can develop after an initial negative screen in a genetically predisposed individual. Therefore, a one-time assessment or screen in these individuals may be insufficient.

The serological diagnosis of CD will be affected by the diagnostic accuracy of the test. Fortunately, 11 out of 12 studies that used serological screening were EMA-based, a test with good diagnostic accuracy in populations with relatively high prevalence, such as relatives of CD patients. The single non-EMA study<sup>236</sup> used AGA, a test with a lower sensitivity and specificity than EMA, but all seropositive subjects underwent a confirmatory intestinal biopsy.

The histologic diagnostic criteria also affect the reported prevalence, as was well illustrated by the study by Tursi et al.,<sup>249</sup> where Marsh grades of I and II were also considered diagnostic, resulting in a prevalence of 44.1%.

The study design, especially whether all at-risk individuals are biopsied as opposed to solely those that satisfy a non-invasive criteria, is also to be considered. The EMA-based serological tests can miss milder forms of enteropathy as has been discussed, and this may explain why the prevalence of CD was generally higher in studies where all identified relatives were biopsied.

## **Prevalence of CD in Patients with Anemia**

The results of this report demonstrate an increased prevalence of CD in patients with IDA. The prevalence is highest (between 10% and 30%) in studies of patients with GI symptoms, or in patients who have no gross lesions seen at initial investigation. CD appears to also be common in premenopausal women, both with (4.5%) and without (33%) heavy periods. Overall, in asymptomatic IDA patients assessed by serology or biopsy, the prevalence of CD was between 2.3% and 6%. Therefore, patients with IDA, particularly those without a clearly identifiable cause, should be evaluated for CD as part of their investigation.

## **Prevalence of CD in Patients with Low BMD**

The studies of the prevalence of CD in patients with low BMD suggest that between 0.9% and 3% of patients with osteoporosis have CD. As a comparison, Fasano et al.<sup>15</sup> found that in the United States 0.75% of the general not-at-risk population, and 4.55% of first degree relatives of CD patients were found to have CD.

The results from these studies should be interpreted within the context of some methodological limitations. Three of them used AGA as the initial screening test to prompt further investigation, and we have shown that the sensitivity of this test is not high. Furthermore, the biopsy criteria used to define CD was either not reported, or required the presence of subtotal, or greater villous atrophy (Marsh IIIb or greater). We have also shown that CD exists in patients with lower grade histological lesions. Furthermore, the study results are contradictory. Two showed a risk of CD higher than the general population,<sup>296,298</sup> while the other two did not. In particular, the study by Mather et al.<sup>297</sup> found that seven out of the 96 screened patients were positive for EMA-ME, but none of these were positive on biopsy. From what we have seen regarding the specificity of this test being close to 100% (and therefore the

PPV would be expected to be high as well), it is unlikely that there are so many false positives even if the prevalence of CD was low, and raises the question of whether early grade CD patients remained undiagnosed. As such, it is difficult to draw any firm conclusions about the true prevalence of CD in this population, given the contradictory results, the fact that lower grade lesions were not considered, and that no follow-up data was provided on the patients who screened positive for serology but did not meet the biopsy criteria. Taking into account these limitations, it is likely that the prevalence of CD in patients with osteoporosis is higher than that in the general population.

### **Celiac 3: Risk of Lymphoma in CD**

The association between malabsorption and lymphoma is a concept that has evolved over the past century. The observation that a significant proportion of patients with intestinal lymphoma also had villous atrophy at a distance from the malignancy, or had previously been diagnosed with CD, led to the publication of several series on the topic.

Although the objective of the task order was not to determine the risk of CD in lymphoma per se, the broad coverage of our search strategy also allowed us to systematically appraise the literature on this question, and were able to identify only two controlled studies on this association, which we describe here.<sup>454,455</sup>

Johnson et al.<sup>455</sup> performed a retrospective search of the five main pathology laboratories serving Northern Ireland to identify all the incident cases of small bowel lymphomas (SBL) and small bowel adenocarcinoma from 1987 to 1996. The clinical presentation of the cases, as well as the presence or absence of villous atrophy at a distance, were noted. The prevalence of CD in this group of SBLs was compared with that of the general population in Northern Ireland, as observed from serological screening of the population at large.<sup>188</sup> There were 13 cases of CD (gender not reported) out of 69 cases of SBL, all of which were ETCLs. Only one out the 13 CD cases was known to have CD prior to the diagnosis of SBL. The OR of CD in SBL was 27.98 (95% CI: 11.88-65.81) compared with the general population. The OR of unrecognized CD in SBL was 15.72 (95% CI: 9.71-25.45) compared with the general population.

In a prospective multicenter Italian study conducted between 1996 and 1999, Catassi et al.<sup>454</sup> screened newly diagnosed adult patients with NHL for CD using EMA and AGA testing; EMA-positive or IgA-deficient patients underwent small bowel biopsy. There were six cases of CD out of 653 patients with NHL (prevalence 0.92%). Three had B-cell and three had T-cell lymphomas. Four out of six cases had lymphoma primarily located in the gut. Two patients were known to have CD for more than 1 year, one of whom was poorly adhering to a GFD. Two cases had been diagnosed with CD within 1 year of the diagnosis of NHL, whereas two other cases had no prior CD diagnosis. The prevalence of CD among these NHL patients was compared with that observed in two Italian studies which performed large scale screening for CD.<sup>126,222</sup> The OR of CD in NHL was 3.1 (95% CI: 1.3-7.6) compared with an age-and sex-matched population.

These observations point to a clear association between CD and lymphoma. To determine the degree of association, or to quantify the risk of lymphoma in CD, we searched the literature for controlled studies of the incidence of lymphoma in CD. Unfortunately, the majority of publications on lymphoma in CD were uncontrolled. Typically, patients diagnosed with CD in a single institution were followed over time and the incident cases of lymphoma were described,

along with characteristics of the affected patients, the course of their CD and the histological type of lymphoma. Unfortunately, such studies provide little confidence to estimate the true risk of lymphoma in CD, since lymphoma per se will occur in the general population. The incidence of lymphoma has to be compared with “controls,” matched on various characteristics such as age, sex, period and population. Any study that did not adjust the observed incidence to the expected incidence for age- and sex-matched individuals of the same population was deemed uncontrolled and excluded.

Cohort studies, either prospective or retrospective, constituted the majority of controlled studies. The incidence of lymphoma in a cohort of biopsy-proven CD patients, calculated as the number of lymphomas divided by the number of patient-years of follow up, was compared with that of an age- and sex-matched population from the same geographic area and time-period.

The SIR therefore represents the likelihood of lymphoma in CD patients relative to those who do not have CD in the same population. The value of the denominator reflects the incidence of lymphoma in a given population, so that it is not possible to pool SIR's from different populations.

The AR, however, is a measure of association that provides information about the absolute excess risk of disease in CD patients compared with “non-afflicted” individuals. This measure is defined as the difference between the incidence rates in the CD patients and normal population and, in a cohort study, can be calculated as the difference of cumulative incidence (risk difference) or incidence densities (rate difference) depending on the study design. The AR is a measure of risk which can be pooled; however, since incidence rates were reported in only two studies, we had insufficient data to generate a representative summary statistic.

Furthermore, studies varied greatly at several levels, in particular with respect to the definition of an incident case of lymphoma, the reported outcome measure, and the CD population selection.

Studies differed in their definition of observed cases of lymphoma, in the following manners:

1. Inclusion of malignancies that antedated the diagnosis of CD. In one American study, the number of at-risk years was calculated both from the time of CD diagnosis and from the time of onset of symptoms that could be attributed to CD.<sup>340</sup> In a prior national survey to patients with CD,<sup>456</sup> these authors had collected evidence to support that there is usually a long duration of symptoms before a diagnosis of CD is made in the United States, so that they considered this account justifiable. However, authors from other countries would specifically exclude the malignancies that were diagnosed prior to CD, assuming that it was unknown whether these were truly “at-risk” periods and that this account could falsely inflate the incidence of lymphoma in CD.<sup>333</sup> Considering that publications uniformly calculated and reported the incidence ratio based on the time period from the CD diagnosis, this is the measure of risk that we selected.
2. Inclusion of malignancies that were recognized simultaneously to the diagnosis of CD (i.e., within 1 to 12 months of diagnosis). In some cases, the diagnosis of CD can be unknown until the presentation of lymphoma. This fact highlights the possibility that lymphoma can occur in asymptomatic patients with CD. Although the importance of such cases is undeniable, the account of such cases can introduce bias and inflate the incidence of lymphoma in CD. In other words, the simultaneous diagnosis of CD and lymphoma is similar to an incident case in a patient with a “zero” duration of follow-up, i.e., is closer to a measure of prevalence than incidence. The inclusion of cases of

lymphoma occurring in patients with previously undiagnosed CD should theoretically be related to all cases of CD, diagnosed and undiagnosed, in order to give an accurate estimate of incidence, which is obviously impossible. However, some studies chose to include such cases, while others excluded them from the incidence calculation. This distinction was noted in the results presentation.

3. Exclusion of malignancies that were diagnosed incidentally at autopsy. In their large Swedish cohort of individuals hospitalized with CD, Askling et al.<sup>337</sup> also excluded unsuspected autopsy diagnoses of lymphoma, assuming that such entities would have been silent during life, and that they therefore could not be controlled for in the comparator group.
4. Case definition of lymphoma. Lymphomas are broadly categorized as Hodgkin's lymphomas and NHLs. The lymphomas that have been associated with CD have typically been of the NHL type, and so the majority of studies sought cases of NHL, with the exception of the Scottish study from Logan,<sup>336</sup> where both Hodgkin's and NHLs were reported.

The reported outcome measures also varied and impaired our ability to combine observations. Some studies reported the incidence of lymphoma, while others, relying on death certificates for ascertainment of outcomes, reported on the mortality from lymphoma.

Finally, the patient selection also varied, along with the reporting of the circumstances that led to the diagnosis of CD. These factors limited our ability to draw conclusions on the risk of lymphoma in symptomatic versus asymptomatic patients with CD.

We were also unable to find controlled data on the risk of lymphoma in refractory CD, an objective which had been suggested by the TEP. We did find, however, two prospective studies and one retrospective study that could lend support to the notion that the risk of lymphoma in refractory CD is greater than that of responsive CD.<sup>457-459</sup>

In the Netherlands, Wahab et al.<sup>457</sup> prospectively followed 158 biopsy-proven CD patients to assess the recovery of histological changes with a GFD over time. There were 11 incident cases of refractory CD with more than 5-years of follow-up, five of whom developed ETCL, in contrast to none of the remaining GFD-responding CD patients.

Goerres<sup>458</sup> reported on 18 patients diagnosed with refractory CD between 1998 and 2000, gathered from all over the Netherlands, whom they treated with azathioprine and prednisone. There were three men and 15 women, with a mean age of 58 years (range 39-82). Subtypes of IEL populations were analyzed by flow cytometry, allowing for the classification of refractory CD patients into two types: type I refractory CD (n=10), in which a normal IEL population is seen, and type II refractory CD (n=8), in which an aberrant IEL population is present. All of the patients with type I refractory CD responded to combined azathioprine-prednisone therapy, whereas none of the patients with type II refractory CD showed a response. In fact, six of the eight patients with type II refractory CD developed EATL within a 3-year period, and a seventh patient died with blastic T-cell-like cells in the small bowel and the liver, and myeloproliferative changes in the bone marrow. The authors concluded that type II refractory CD is a premalignant condition with a very poor prognosis.

In a French national cooperative study, the clinical information and tissue specimen necessary for IEL subpopulation analysis were gathered from 21 patients diagnosed with refractory CD between 1974 and 1998.<sup>459</sup> There were five men and 16 women, with a mean age of 51 years (range 29-73 years). Nine of the 21 patients (43%) died from severe malnutrition

and/or lymphoma (three patients) after a mean of 6.7 (range 1-14) years after the onset of symptoms of refractory CD. A phenotypically abnormal IEL population associated with evidence of clonality was found in eight of the nine patients that could be tested. The authors suggested that refractory CD may be the missing link between CD and ETCL.

This systematic review identified nine controlled studies that met inclusion criteria. The major observation of our review is that the risk of lymphoma in CD was significantly increased compared to an age-matched population from the same region and period in 8 out of 9 studies. The SIR (NHL) varied from 2.66<sup>338</sup> to 42.7,<sup>333</sup> whereas, the SMR from NHL or lymphoma in CD varied from 11.4<sup>337</sup> to 69.3.<sup>339</sup> This increased risk persists even when the cases that are diagnosed with lymphoma simultaneously or within 1 year of the diagnosis of CD are excluded from the calculation.

Some observational studies suggest that the risk of lymphoma, relative to patients of the same age without CD, may be highest in individuals who were diagnosed during adulthood,<sup>336,337</sup> and appears to decrease with adherence to a GFD, as shown by several authors.<sup>333,336-339</sup> It is also interesting to note that the only study that did not report a significant increased risk of lymphoma was one where 75% of patients were on a strict GFD.<sup>338</sup>

The differential risk of lymphoma among patients diagnosed with CD in adulthood versus childhood may indicate that early diagnosis and treatment with a GFD is protective. The possibility that a GFD may be protective is also supported by Askling et al.<sup>337</sup> who found that the risk of lymphoma dropped to unity after 15 years of follow up. Limitations in the designs of these studies, however, prevents firm conclusions. These studies have followed relatively few patients diagnosed as children through middle age when the risk of lymphoma rises, and they may not have accounted for other factors (severity of symptoms, or other marker of disease activity) which might affect risk. The distinction between childhood and adult diagnosis of CD in the published cohorts relies on the presence or absence of CD-related symptoms during childhood, which has historically been a key factor in CD diagnosis. Based on the observations from these groups of patients, it would seem that continuous gluten exposure and ongoing mucosal damage sets the stage for malignancy later on in life. It remains unclear, however, why some individuals would have persistent mucosal damage in the absence of symptoms. Would these individuals also carry other characteristics that modulate their risk of malignancy? As we tap into the base of the “celiac iceberg” through systematic screening, we will hopefully in the future be able to observe the incidence of lymphoma in child and adult CD populations who were identified through population screening, and placed on a GFD despite them being asymptomatic during that period of their lives. The notion that lymphoma arises from prolonged antigenic stimulation should be confirmed if the risk of lymphoma is, as expected, lower than historical CD cohorts in those individuals.

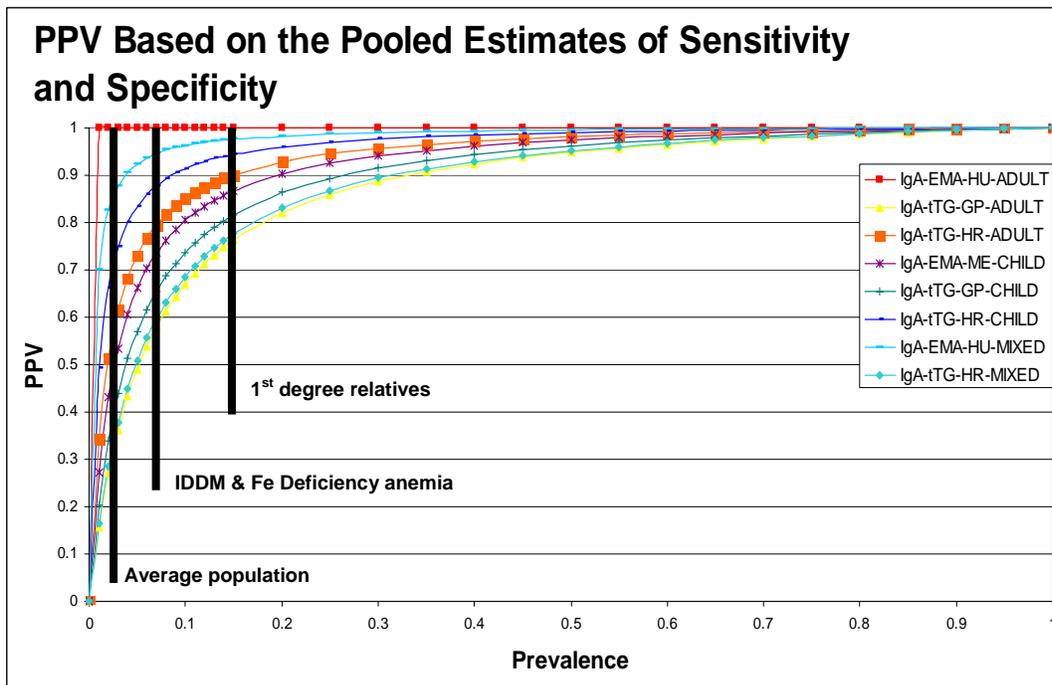
## **Celiac 4: Consequences of Testing for CD**

The search strategy did not identify any studies that would allow us to address the specific benefits and harms of testing with different strategies for CD. At present, there is inadequate information from the published literature on the benefits and harms of screening and the potential risks of undetected CD. Prospective trials of screening would be helpful to provide the data necessary to construct the tables that depict the consequences of screening specific populations.

Information on the consequences of screening will come from the currently ongoing large population based prevalence studies.

The consequences of such issues as false-positive results were dealt with in the Celiac 1 Discussion. As discussed in that section, the definition of CD used and the prevalence of CD in the test populations, have a great impact on the diagnostic parameters of the available tests. We have presented data that show that the sensitivity of the available tests declines considerably when applied to patients with low-grade histological lesions. Unfortunately, there is insufficient data to address the question of what is the consequence of missing patients with low-grade histological lesions if serological screening alone is used. As described in Celiac 1, all the diagnostic test studies of the various serological markers were undertaken in study populations in which the prevalence of CD exceeded the that observed in most clinical situations. We have shown that the positive predictive value, which is predominately influenced by the test specificity and the prevalence of CD in the test population, drops from the reported values to much lower values when the test is applied in typical clinical populations. To illustrate this point, Figure 31 highlights the expected PPV when applied to different test populations.

**Figure 31: PPV based on pooled estimates of sensitivity and specificity**



As can be seen from Figure 31, the PPV—the probability that a positive test result actually represents true CD—drops with the prevalence of the population in which the test is applied. This relationship holds true for all the summary curves, but differ in degree. It is important to note that the PPV is predominantly influenced by the specificity of the test and prevalence. Since we have identified that the specificity of EMA and tTG is quite high, the major influence on the PPV in these analyses is the prevalence of CD in the population being tested. The practical importance of this discussion, is that despite having very high specificity, the use of these serological markers in low-prevalence populations would be expected to result in high false-positive rates. Below a prevalence of 5%, the false-positive rates may be as high as 30% to

50% based on our estimates. This may seem counterintuitive, given that the specificity is greater than 95% and close to 100% in some cases. One must keep in mind that unless the specificity actually equals 100%, the prevalence of CD will influence the PPV. As the specificity approaches 100%, the influence of the prevalence decreases. The same interplay occurs between the negative predictive value (the probability that a person with a negative test does not have CD), and the sensitivity of the test. However, in this case, the NPV rises as the prevalence of the disease falls (see Celiac 1 Figures). Given that we have identified that EMA and tTG have a sensitivity in the range of 95%, the NPV would be expected to be very high (>96%), particularly in low-prevalence populations. This would mean that the false-negative rates with these tests are less than 1% to 4%. These data would then suggest that a negative test result would have a high probability of being a true negative result, but that a positive test would have to be considered in light of the expected prevalence of CD in the tested population. If the expected prevalence is in the range of 10% or lower, then the possibility that the result represents a false-positive should be considered. Lastly, one must not forget the discussion regarding the true sensitivity of these serological markers when lower grade CD lesions are considered. The studies by Rostami et al.<sup>16</sup> and others, suggest that the sensitivity can be lower than 80%. In fact, both Rostami et al.<sup>16</sup> and Tursi et al.<sup>424</sup> suggest that the sensitivity for grades less than Marsh IIIa, is in the range of 30% to 40%. If this is the case, then the nearly perfect NPV discussed above would be expected to fall, particularly in groups with a higher prevalence of CD. For example, if the sensitivity was really 75%, then the NPV would drop to 88% (12% false negatives) if a population of patients with suspected CD was tested. However, because of the strong influence of a low prevalence (<15%) on the NPV, the NPV will remain higher than 90%, as long as the sensitivity of the test is greater than 50%.

## **Expected Outcomes of Treatment of CD**

The four studies of diabetes and CD in children/adolescents that evaluated the impact of a GFD found that body composition parameters improved on the GFD, but HbA1c levels did not improve. Some studies observed an increase in the insulin requirements after introduction of a GFD, which could be explained by improved absorption of nutrients.

The results of studies on anthropometrics and body composition in CD patients are variable due to differences in populations, and methods used to evaluate body composition. Overall, weight and BMI improves after starting a GFD. Individuals with CD may have a lower BMI when compared with controls because of lower daily energy intakes, particularly in those who strictly follow a GFD.

A few small studies have evaluated the impact of the diet on nutritional parameters in newly diagnosed symptomatic CD patients. These studies found that nutritional status does improve in the majority of subjects with CD on a GFD. Certain biochemical parameters such as ferritin may take longer to normalize. There is evidence that the recovery of nutritional status is linked to improvement of villous atrophy. Larger studies of nutritional status in those with classical and silent CD patients and the relationship of biochemical values to changes in histological grade on small bowel biopsy and compliance with the GFD would be helpful.

Compliance with the GFD was assessed in adolescent populations in three studies and the results varied. Compliance with a strict GFD was greater in those who were symptomatic, compared with those who were diagnosed via a screening program. Another study in adults by Ciacci et al.<sup>460</sup> looked at the correlation between intestinal biopsy and compliance (assessed by

dietary interview) and found that that intestinal damage was significantly associated with dietary compliance. Low or very low compliance with a GFD had a PPV of 92.8%, and good compliance had a negative PPV of 96.8%. This study also suggested that those with more severe symptoms at diagnosis were more likely to have better compliance. Given the poorer compliance in those without symptoms, different strategies to promote adherence with the GFD may need to be developed if screening for CD is promoted.

The justification for screening the general population for CD would be strengthened by well-conducted comprehensive cost-effective analyses. Only one study<sup>360</sup> appeared to include the majority of the components that have been recommended for the reporting of cost-effectiveness analyses (CCOHTA, Guidelines for Economic Evaluation of Pharmaceuticals: Canada, 1997). None of the analyses incorporated the use of health related quality of life or utility assessments.

## **Fractures/BMD/Osteoporosis/Osteopenia**

There were a number of methodological limitations in the studies that examined bone-related consequences of CD. Limitations included: selection of representative cases and controls, ascertainment of the outcome and failure to identify and control for relevant co-interventions such as calcium and vitamin D.

The issue of whether fractures are increased with individuals with CD appears to be somewhat controversial based on results of the included studies. Both Thomason et al.<sup>394</sup> and Vestergaard et al.<sup>388</sup> did not find increased fracture rates for CD subjects, whereas, the recent population-based study by West et al.<sup>385</sup> did find an increased rate of fractures. This is an important issue to clarify since osteoporotic fractures are one of the key reasons for promoting strict adherence to the GFD and for making decisions about screening. In some studies, the sample sizes were small and may not have been large enough to detect an increased risk in fractures in subjects with CD relative to controls. In addition, methodologies and study populations varied, and not all studies controlled for duration of CD. Moreno et al.<sup>392</sup> found that the risk of fracture in subclinical and silent cases of CD was not significantly different from that of controls. Overall, the risk of fracture seemed to increase with age as one would anticipate and may be greater in those patients who were clinically symptomatic. Based on results of current studies, the risk of fracture appears to be highest prior to diagnosis of CD and diminishes once individuals are on GFD. This latter finding would be consistent with the increase in BMD that is seen after 1 year on a GFD. Additional population based fracture studies would be useful to clarify the relative and absolute risk of fracture in CD and to determine if it differs in asymptomatic cases.

Overall, the studies consistently documented an increased prevalence of osteoporosis/osteopenia in newly diagnosed patients relative to controls. There was a significant increase in BMD, especially within the first year of being on a GFD. Some of the variability in the results could be attributed to proportion that were compliant with the diet and use of co-interventions such as calcium and vitamin D. Moreno et al.<sup>392</sup> found that the lumbar spine BMD did not differ in groups according to clinical presentation, but they did find a significantly lower T score of the femoral neck BMD in classically symptomatic cases versus subclinical or silent cases. Mustalahti et al.,<sup>378</sup> however, found that BMD in the spine was lower in asymptomatic cases.

Based on the two studies in children,<sup>352,377</sup> BMD appears to normalize in children after treatment with a GFD. The normalization of BMD in children would support the need for early

diagnosis of CD and treatment. However, in children skeletal growth may affect BMD, with some of the change relating to changes in growth. Most studies of BMD in adults on a GFD have found that the BMD is still reduced at all sites when compared to normal controls. One study suggested that those without secondary hyperparathyroidism at time of diagnosis may normalize their BMD, but this finding was not replicated. A large BMD study with baseline and follow-up small bowel biopsy data, and documentation of clinical presentation, percent compliance with the GFD and adjustment of co-interventions is recommended to give us accurate information on bone-related consequences of CD.

## **Mortality**

The majority of observational studies have demonstrated an increase in overall mortality rate (SMR of 2 or greater) in subjects with CD when compared with the general population. The increase in mortality can be attributed to deaths from malignant diseases, respiratory, and digestive diseases. The increase in mortality appears to be greatest within the first 3 years after diagnosis and declines over time. The mortality rate seems to increase with longer delays in diagnosis and poor adherence to the GFD. Perhaps one of the most important points from the Corrado study,<sup>362</sup> is that the mortality rate was not increased compared to the general population for those individuals who had mild symptoms or were asymptomatic. This latter result has potential implications for population screening for CD.

# **Celiac 5: Promoting or Monitoring Adherence to a GFD**

## **Monitoring Adherence to a GFD**

Some of the same concerns expressed in the other celiac objectives, regarding clinical definitions, histological criteria, and the performance of the serological tests, are repeated when the results of the studies on monitoring adherence to a GFD are considered. Foremost in facilitating the interpretation of these studies is the question of what to consider as the histological criteria to define recovery on a GFD. Certainly normalization to Marsh 0 would constitute recovery, but what about improvement to Marsh I or II, or even accepting Marsh IIIa? The distinction has important implications for assessing the strength of the correlation between histological and serological improvement, and in this regard, different studies have adopted different cut-offs.

It is clear from the presented studies that improvement of symptoms does not offer an accurate assessment of adherence to a GFD as judged by interview or by biopsy. This point is illustrated in the study by Kluge et al.<sup>461</sup>. In follow-up of 18 adult patients with CD, all patients felt well and appeared to be clinically in remission. Nonetheless, only 17% of the patients reported being on a strict GFD. Biopsy assessment of eight patients showed six with total villous atrophy including one patient who reported strict adherence to GFD. The remaining two patients did not have villous atrophy but the mucosa was not normal, including an excess of IELs. Thus, small amounts of gluten may provoke a histologic change without clinical symptoms which may be an important reason why adherence to GFD may be less than perfect. In other words, non-compliance does not necessarily translate into noticeable consequences for the patient.

Furthermore, it is increasingly recognized that most CD patients don't have symptoms, so reliance on symptomatic improvement is clearly not adequate.

There is good evidence that mucosal recovery following institution of GFD is slower and more incomplete than previously assumed, especially in adults.<sup>405,411,414</sup> Whether this slow recovery is due to dietary transgression, inadvertent gluten intake or whether this is simply the natural history of the disease is less clear. This has definite implications for the interpretation of both biopsy and serology results in monitoring adherence to GFD, particularly in the short run.

With the advent of the newer and more sensitive serologic tests for CD (EMA, tTG), the possibility of a reduction in the need for follow-up biopsies and a move towards non-invasive serological monitoring has been proposed. The question arises as to whether serology can detect dietary transgressions and reasonably mirror histological improvement on a GFD.

A number of studies show that values of serologic markers will fall with increasing duration of GFD, whether one looks at IgA-AGA, IgA-EMA, or IgA-tTG. As well, several studies suggest that in both adults and children, increasing degrees of non-compliance with a GFD, are more likely to be associated with positive serologic tests.<sup>396,402,408</sup> The question, however, is *not* whether serology can pick-up major transgressions such as with a gluten challenge which it is clearly capable of assessing,<sup>400,404</sup> but rather if serology can pick-up milder degrees of dietary non-compliance and reasonably reflect histological status. A high rate of falsely-negative serology with lesser degrees of dietary transgression would diminish serology as a means of accurately monitoring adherence.

In both adults and children, the sensitivity of serology for picking-up dietary transgressions based on interview or self-reporting is disappointing.<sup>401,402,410,415</sup> One conflicting study<sup>412</sup> showed a good correlation between serology and adherence. This likely reflects the way patients were categorized, and it is likely that in this study, patients with lesser degrees of dietary transgression were categorized as compliant. In general, there is a significant rate of normal serology in patients identified as not adhering to a GFD. Furthermore, evidence from several studies suggests that serology, regardless of the actual test used, does not adequately reflect the mucosal state in adults.<sup>398,403,407,409,409,413</sup> Surprisingly, it seems that serology may be normal, not only in Marsh I or II lesions, but also when there is villous atrophy present.<sup>398,407,409,413</sup> Although the specificity of various serologic markers for villous atrophy seems better than sensitivity,<sup>398</sup> the NPV of serology would suggest that a negative test does not offer high assurance of the absence of villous atrophy.

As discussed earlier, mucosal recovery can be a slow process. It may be that serologic markers may better reflect histology in long-term follow-up. Certainly, in the range of follow-up of these studies (6-30 months), serology may be negative despite villous atrophy. There is evidence that even in longer follow-up, serology does not accurately reflect adherence.<sup>398,402,410</sup>

In younger patients, IgA-AGA and IgA-EMA-ME may better represent the mucosal state.<sup>397,415</sup> These studies are in keeping with the impression that in children and adolescents, mucosal recovery is faster and more complete. In children, serology seems to be a better marker of the absence of villous atrophy. Still, serology may be negative in the face of lesser degrees of histologic abnormality without villous atrophy.<sup>397</sup> The significance of such lower-grade biopsy abnormalities, although, is unclear.

It is possible that IgA-AGA may rise faster with non-compliance to GFD than other markers.<sup>396,400</sup> However, there is little direct evidence to show superiority of one serologic test over another in monitoring adherence.

Perhaps an important question that arises from this discussion, with particular relevance to symptomatic CD patients, is: “is it good enough for CD patients to show symptomatic improvement and a corresponding fall in, or normalization of, a sensitive serological marker without need for ‘normalization’ of the intestinal mucosa?” Unfortunately, this question is not an easy one to answer since many of the outcome studies in CD, particularly for lymphoma and mortality, did not specifically address differences in histologic grade. Furthermore, we identified no clear evidence suggesting that refractory sprue was the result of dietary indiscretion as opposed to a different spectrum of CD. Nonetheless, histological improvement appears to be important. For example, one study<sup>356</sup> demonstrated that osteoporotic patients with CD on a GFD who had Marsh III lesions had lower median Z-scores than those with grades less than Marsh III, while another study demonstrated a significant correlation of nutritional status measured by histomorphometric index, with the severity of the histological biopsy grade.<sup>346</sup> In the former study as well as one other study,<sup>358</sup> histologic grade correlated with degree of IDA, all suggesting that the goal of monitoring should be to assess degree of histological improvement.

It can be concluded that the return of serologic markers to normal is associated with duration of GFD and degree of patient compliance. Unfortunately, the correlation remains imperfect, especially in adults, and seems to reflect gross rather than minor degrees of dietary transgressions. Serological tests seem to have a higher specificity than sensitivity for dietary transgressions. It is recognized that this area is controversial and that clinicians are moving away from routine follow-up biopsy as a means to assess dietary compliance. It seems reasonable to suggest that improvement in clinical parameters, and disappearance of serological markers would be an adequate measure of response to a gluten free diet. In children, because of their faster and more complete mucosal recovery, this strategy of using serology may be an appropriate means to monitor adherence. In adults, however, the situation is somewhat more complex. Therefore, while serology certainly can be an adjunct means to monitor adherence to a GFD, consideration should be given to assessing histological improvement since some evidence exists to suggest that mucosal improvement to at least below a Marsh III appears to be important from an outcomes perspective. If biopsy is to be utilized as a means of assessing adherence to a GFD in adults, the timing of the biopsy needs to take into consideration the slower mucosal healing in adults, and should therefore be performed after 1 year to 1.5 years of a GFD.

## **Interventions to Promote Adherence to a GFD**

Changes in dietary habits are difficult to attain and maintain. The barriers to compliance are many. No interventions to promote compliance with GFD have been studied and found to be effective. Adding to the difficulty of assessing any proposed intervention is the lack of certainty as to how best to measure GFD compliance.

The existing evidence suggests a positive correlation between parental socioeconomic status, education, knowledge of CD, and the compliance of their children.<sup>416,418</sup> Compliant children may also have a better knowledge of CD<sup>420</sup> than those children who are non-compliant. Improved knowledge in adults also appears to correlate with compliance.<sup>419</sup> It is, therefore, not unreasonable to suggest that interventions designed to improve knowledge about CD in general, and about GFD, and specifically how to identify gluten-containing products, would likely improve compliance with a GFD. Improving knowledge regarding gluten-containing food products and additives would also likely improve self-confidence in choosing gluten-free foods as suggested by Lamontagne et al.<sup>419</sup> Improved knowledge of outcomes of untreated CD may

also improve compliance. Such information interventions, however, would need to be prospectively evaluated to ensure that they perform as expected.

Membership in a local celiac society appears to be an effective means of promoting compliance with a GFD. This is not surprising since such organizations provide CD patients with not only improved knowledge regarding their disease, and the intricacies of the GFD, but also provide emotional and social support.

It is interesting that one study<sup>417</sup> has demonstrated lower rates of compliance in children detected by screen as compared with those diagnosed on the basis of symptoms. It seems logical that if there are no obvious detrimental symptoms from a gluten-containing diet, that children and likely adults will be less likely to be compliant. The authors speculate that since screen-detected patients had a higher mean age of diagnosis, compliance might be promoted by earlier identification. They speculate that earlier detection would avoid the difficulty of changing formed eating habits.

Is early detection of CD an effective intervention to promote compliance? It appears rational that it would be easier to follow a GFD if it were introduced at an earlier age. There are some interesting observations<sup>417</sup> that suggest that diagnosis in early childhood is associated with improved compliance.<sup>421</sup> Unfortunately, the issue of compliance in asymptomatic screen-positive individuals casts doubt on the positive downstream effects of screening asymptomatic populations for CD, particularly if the low-compliance rates in asymptomatic individuals can be reproduced in other studies.

In summary, it is suggested by the results of this report that a multidisciplinary approach to patient and parent education and support by physicians, dieticians, and celiac societies, possibly employing formal knowledge and decision support interventions that involve the patient (and parent) directly, are likely to improve compliance in individuals diagnosed with CD. Formal testing of interventions and programs would be valuable.

## **Strength of the Body of Evidence**

### **Celiac 1**

Overall, the quality of the diagnostic studies assessed in the Celiac 1 objective was quite good, due largely to our stringent inclusion criteria. However, 59% of the included studies reported using a selected patient population that may not be representative of a clinically-relevant population. This is likely related to study design. In addition, only 11% of the studies reported on whether the reference test was reported without knowledge of the index test. However, we felt that this was not a major threat to the validity of the studies.

Two other factors that affect the interpretation of these results, yet were not captured in the quality assessments, are the threshold effects for determining the positivity of a serological test, and the high prevalence of CD in these studies (see above). With these considerations in mind, the overall strength of the evidence is quite good.

## **Celiac 2**

The overall quality of reports of the included studies in the Celiac 2 objective was found to be marginal to fair. For example, most of the studies did not report on whether the patients were consecutively enrolled, a factor that could contribute to selection bias. However, setting aside the quality of individual studies, from a policy perspective, the strength of the evidence is fairly good in that the study populations were selected to reflect that of a North American/Western European descent, that should reflect the demographics of the US population.

## **Celiac 3**

The studies included in the Celiac 3 objective were found overall, to be of good quality. Again, the overall strength of the evidence is due largely to the stringent inclusion criteria, such as the requirement for the reporting of standardised rates for the outcomes based on rates from the local general population, and the overall good quality of the included studies.

## **Celiac 4**

The majority of studies included in this objective were single group “before–after” studies, although some had in addition a comparative healthy control group. We could not identify any quality instruments for this type of study design and in general, this type of study is considered weak, particularly in the absence of a control group. Overall, however, the strength of the evidence for this objective is fair to good and suggests that the results can be used for policy decisions with the understanding that this area of CD research is still relatively new and requires further high quality studies.

## **Celiac 5**

The majority of studies in this objective were also of a “before–after” design. However, in this setting, this design may not pose a major limitation, since the purpose of the study is to assess the change in serology and histology after introduction of a GFD. In this regard, the strength of the evidence for monitoring adherence to a GFD is fairly good. However, there is almost a complete absence of studies of interventions for the promotion of adherence to a GFD.

## Future Research

This review has allowed us to identify several areas in need of future research. Perhaps the most important of these is a need for the development of a consensus on the definition of CD in the era of advanced serological testing. As discussed in the report, this distinction of what one calls CD has profound implications for each of the requested task order objectives. Do screen-positive patients without villous atrophy have CD. Certainly the preliminary evidence suggests that this is the situation in many cases. However, what is required is a new definition of a gold standard for the diagnosis of CD. This new gold standard may include a combination of serology, biopsy and HLA testing. Such a gold standard, when used in studies with a time dimension (e.g., response to a GFD or gluten challenge; extended follow-up), would help answer some of the uncertainties identified in this report including: the real performance of the serological tests when low-grade lesions are considered CD; the diagnostic performance of biopsy alone; the outcomes of patients with these low-grade lesions; and, those that would be “missed” using current screening strategies. Even in the absence of a new gold standard, we could not identify a well-conducted study of the diagnostic performance of the various serological markers when applied to an average population (i.e., one with a prevalence of CD in keeping with the range identified for average risk), with the entire cohort being investigated equally (i.e., all are biopsied). Such a study would at least be able to shed light on the performance of these tests in average-risk patients, and since all patients are biopsied, the relationship of histology to serology could be further assessed.

On a similar theme, we have identified multiple studies that suggest the importance of histological improvement on a GFD. This is a controversial area since in common clinical practice, clinicians are moving away from routine follow-up biopsy. It seems reasonable to believe that improvement in clinical parameters with loss of serological markers is adequate evidence of response to a GFD. In children, this issue may be less important since histological improvement is much more rapid and complete than in adults, and correlation with serology seems better. However, we have identified multiple studies in adults that suggest poor correlation between serology and improvement of histology on a GFD, and other studies that suggest that serology is useful for detecting gross dietary indiscretion, but not minor occurrences. Therefore, the question that arises is what constitutes adequate improvement on a GFD, and what are the criteria to define this improvement. Based on the lymphoma literature that suggests that this malignancy may arise from chronic antigenic stimulation and immune activation, what are the outcomes of adults with clinical improvement, yet persistent histological abnormalities? Are some histological features, such as reduction of mucosal lymphocytes, more important markers of improvement and possibly prognosis than other features such as villous height?

We feel that clarification of these fundamental questions is necessary for the conduct of future studies in all areas of CD, and in particular studies of the diagnostic tests and the outcomes in CD, since these are so dependent on the definitions discussed above.

## Conclusion

This report has provided a systematic review on five broad areas of CD, with each of these areas including important sub-components. Perhaps one of the most important findings of this report is the understanding of the importance of how one chooses to define CD in the era of serological testing, and how this apparently clear-cut task has profound implications on all the results presented in this report. Specifically, can CD be diagnosed solely on the basis of serology? Is some degree of villous atrophy necessary for the diagnosis of CD? These questions have important implications downstream of the diagnosis as well. Do CD patients without symptoms or villous atrophy have the same risk of complications as those with villous atrophy? Is serological improvement on a GFD sufficient to reduce CD complications or must there be documented histological improvement, and what degree of histological improvement is necessary?

The results of the Celiac 1 objective suggest that in the era of EMA and tTG antibody testing, AGA testing in both children and adults has a limited role. The sensitivity and specificity of EMA and tTG are quite high (over 95% for sensitivity, and close to 100% for specificity), as are their PPVs and NPVs, but as previously discussed, one has to be aware that the reported diagnostic parameters are taken from studies in which the prevalence of CD was, for the most part, much higher than that seen in usual clinical practice and certainly the PPV of these tests may not be as high as reported when these tests are applied in general population screening. The bulk of the evidence on the diagnostic characteristics of these tests was derived from studies that defined CD as having at least some degree of villous atrophy. We have identified studies that suggest that the sensitivity of these tests drops, at times significantly, when applied to populations with CD with lower-grade histological lesions. This not only has implications regarding those patients with “mild” CD who were missed during screening efforts, but also puts into question the nearly perfect NPV of these tests.

HLA DQ2/DQ8 testing appears to be a useful adjunct in the diagnosis of CD. The test has high sensitivity, in excess of 90% to 95%, but because around 30% of the general population and an even higher proportion of “high-risk” subjects including diabetics and family members also carry these markers, the specificity of this test is not ideal. The greatest diagnostic utility of this test appears to be its NPV.

Biopsy itself, when used with a strict cut-off requiring villous atrophy, appears to have high specificity, but poor sensitivity. Using lower grade cut-offs clearly improves sensitivity, but because of the wide differential of causes of histological lesions similar to Marsh I to IIIa, the specificity suffers. The use of histomorphometric measures, such as quantification of  $\gamma\delta+$  IELs, are likely to allow for the use of lower-grade cut-offs while maintaining reasonable specificity. Ultimately, a trial utilizing multiple diagnostic tests in an attempt to capture as many CD patients in a clinically-relevant population as possible, with a time dimension including a response to a GFD or gluten challenge, is required to fully assess the diagnostic characteristics of biopsy alone. This type of study would be able to characterize the false-positive and false-negative rates if all studied patients are followed forward in time.

The included prevalence studies demonstrated important differences in execution, tests for prevalence assessment, and in patient sampling, and their results also have to be interpreted in the light of some of the limitations that have been identified regarding the diagnostic performance of the tests for CD. Nonetheless, the results of this report suggest that CD is a very common disorder with a prevalence in the general population that is likely close to 1:100 (1%).

Several high-risk groups with a prevalence of CD greater than that of the general population have been identified including those suspected of having CD, family members of CD patients, type I diabetics, and those with IDA or low BMD. Additionally, the review identified multiple other high-risk groups such as those with Down Syndrome, short stature, and infertility, to name a few, though their inclusion was beyond the scope of this report. These results would suggest that at the very least, high-risk groups should be screened for CD. If the performance of the noninvasive serological tests can be verified in the relatively “low prevalence” situations in general unselected populations, then population screening may also be advisable, particularly if a greater understanding of the consequences of missing early low-grade CD can be obtained, and the issues of low-compliance with a GFD of asymptomatic screen identified patients can be addressed.

CD is known to be associated with GI lymphoma. The results of this report confirm this strong association, with the limitations indicated in the text. Nonetheless, the report identified SIR for lymphoma that ranged from 4 to 40, and SMR that ranged from 11 to 70. GI lymphoma is believed to arise as a result of chronic antigenic stimulation, which leads to the development of a clonal T-cell population with usually a refractory intermediate stage. We have identified epidemiologic data that supports this notion, and suggests that a diagnostic delay, and in particular diagnosis of CD in adulthood, as apposed to in childhood, is associated with poorer outcomes. Fortunately, several studies suggest that adherence to a GFD reduces the risk of lymphoma in CD patients. These findings underscore the importance of early diagnosis and treatment of CD.

The consequences of testing for, and identifying CD patients, is expected to have a positive impact on patient outcomes be it either from a reduced risk of lymphoma with early diagnosis and treatment of CD or from improvements in nutritional status, BMI, and BMD. The consequences of testing in at-risk and symptomatic patients appears to be more straightforward since these patients appear to be more compliant with a GFD and would be expected to benefit from this intervention. The data is less clear for asymptomatic screen-identified patients, particularly those who are truly silent and/or don't have fully developed villous atrophy since, on the one hand the outcome of such patients has not been extensively studied, and on the other hand, compliance with a GFD appears problematic, particularly for those diagnosed in adulthood.

Finally, no specific interventions have been identified that promote adherence to a GFD, but education of patients and family members about CD and about the intricacies of the GFD through multidisciplinary teams, and participation in local CD societies, has been show to improve compliance. Therefore, the development and evaluation of formal educational interventions in collaboration between healthcare professionals and CD societies would appear to be a means to build on the methods that appear to already improve patient compliance. Monitoring of adherence to a GFD appears to be important, since improvement in histologic grade has been associated with improved BMD, IDA, and nutritional status. The serological markers appear to be adequate for detecting gross dietary indiscretion, and responding to gluten challenge, but unfortunately, they have poor sensitivity for detecting lesser degrees of dietary indiscretion, and have inadequate correlation with histological improvement at least in the short-term. It is true that histological improvement tends to lag behind clinical and serological improvement, especially in adults in whom improvement may never be complete, but even considering this, a negative serological test has been shown to miss patients with persistent villous atrophy. The recognition of persistent villous atrophy appears to be important since

improvement beyond this level is associated with the improved outcomes listed above. It should be noted, however, that we could not identify a controlled study that objectively determined the level of histological improvement that would be associated with improved outcomes, and this is an area for future study. Although somewhat controversial, nonetheless, based on this report it would appear that follow-up biopsy, at least 1 year after GFD in adults to document improvement of the histological grade, would be valuable.

## References and Included Studies

1. Marsh MN. Gluten, major histocompatibility complex, and the small intestine: A molecular and immunobiologic approach to the spectrum of gluten sensitivity ('celiac sprue'). *Gastroenterology* 1992;102(1):330-54.
2. McNeish AS, Harms HK, Rey J, Shmerling DH, Visakorpi JK, Walker-Smith JA. The diagnosis of coeliac disease. A commentary on the current practices of members of the European Society for Paediatric Gastroenterology and Nutrition (ESPGAN). *Archives of Disease in Childhood* 1979;54(10):783-6.
3. Oberhuber G, Granditsch G, Vogelsang H. The histopathology of coeliac disease: time for a standardized report scheme for pathologists. *European Journal of Gastroenterology & Hepatology* 1999;11(10):1185-94.
4. Walker-Smith JA, Guandalini S, Schmitz J, Shmerling DH, Visakorpi JK. Revised criteria for diagnosis of coeliac disease. *Arch Dis Child* 1990;65(8):909-11.
5. van de WY, Kooy Y, van Veelen P, Vader W, Koning F, Pena S. Coeliac disease: it takes three to tango! *Gut* 2000;46(5):734-7.
6. Papadopoulos GK, Wijmenga C, Koning F. Interplay between genetics and the environment in the development of celiac disease: perspectives for a healthy life. *Journal of Clinical Investigation* 2001;108(9):1261-6.
7. Sollid LM, McAdam SN, Molberg O, Quarsten H, Arentz-Hansen H, Louka AS, et al. Genes and environment in celiac disease. *Acta Odontologica Scandinavica* 2001;59(3):183-6.
8. Sollid LM, Markussen G, Ek J, Gjerde H, Vartdal F, Thorsby E. Evidence for a primary association of celiac disease to a particular HLA-DQ alpha/beta heterodimer. *Journal of Experimental Medicine* 1989;169(1):345-50.
9. Ploski R, Ek J, Thorsby E, Sollid LM. On the HLA-DQ(alpha 1\*0501, beta 1\*0201)-associated susceptibility in celiac disease: a possible gene dosage effect of DQB1\*0201. *Tissue Antigens* 1993;41(4):173-7.
10. Ploski R, Ascher H, Sollid LM. HLA genotypes and the increased incidence of coeliac disease in Sweden. *Scand J Gastroenterol* 1996;31(11):1092-7.
11. Holopainen P, Mustalahti K, Uimari P, Collin P, Maki M, Partanen J. Candidate gene regions and genetic heterogeneity in gluten sensitivity. *Gut* 2001;48(5):696-701.
12. Kagnoff MF. Celiac disease pathogenesis: the plot thickens. *Gastroenterology* 2002;123(3):939-43.
13. Feldman M, Friedman LS, Sleisenger MH. *Sleisenger and Fordtran's Gastrointestinal and Liver Disease*. 7th edition W.B. Saunders; 2003.
14. Fasano A, Catassi C. Current approaches to diagnosis and treatment of celiac disease: an evolving spectrum. *Gastroenterology* 2001;120(3):636-51.
15. Fasano A, Berti I, Gerarduzzi T, Not T, Colletti RB, Drago S, et al. Prevalence of celiac disease in at-risk and not-at-risk groups in the United States: a large multicenter study. *Archives of Internal Medicine* 2003;163(3):286-92.
16. Rostami K, Kerckhaert J, Tiemessen R, von Blomberg BM, Meijer JW, Mulder CJ. Sensitivity of antiendomysium and antigliadin antibodies in untreated celiac disease: disappointing in clinical practice. *American Journal of Gastroenterology* 1999;94(4):888-94.
17. Rosenthal DS, Roop DR, Huff CA, Weiss JS, Ellis CN, Hamilton T, et al. Changes in photo-aged human skin following topical application of all-trans retinoic acid. *Journal of Investigative Dermatology* 1990;95(5):510-5.
18. Wahab PJ, Meijer JWR, Goerres MS, Mulder CJJ. Coeliac disease: changing views on gluten-sensitive enteropathy. *Scandinavian Journal of Gastroenterology Supplement* 2002;(236):60-5.
19. Whiting P, Rutjes AW, Reitsma JB, Bossuyt PM, Kleijnen J. The development of QUADAS: a tool for the quality assessment of studies of diagnostic accuracy included in systematic reviews. *BMC Med Res Methodol* 2003;3(1):25. Available: PM:14606960.

**Note:** Appendixes and Evidence Tables are provided electronically at <http://www.ahrq.gov/clinic/tp/celiactp.htm>

20. Wells GA, Shea B, O'Connell D, Peterson J, Welch V, Tugwell P. The Newcastle-Ottawa Scale (NOS) for assessing the quality of nonrandomised studies in meta-analyses. 3rd Symposium on Systematic Reviews: Beyond the Basics, July 2000 in Oxford.2000.
21. Ophthalmology Study Design Worksheet #3 Noncomparative (nonrandomized, noncontrolled) Interventional Case Series. 2004. Ref Type: Internet Communication
22. Moses LE, Shapiro D, Littenberg B. Combining independent studies of a diagnostic test into a summary ROC curve: data-analytic approaches and some additional considerations. *Stat Med* 1993;12(14):1293-316. Available: PM:8210827.
23. Littenberg B, Moses LE. Estimating diagnostic accuracy from multiple conflicting reports: a new meta-analytic method. *Med Decis Making* 1993;13(4):313-21. Available: PM:8246704.
24. Deeks J. Systematics reviews of evaluations of diagnostic and screening test. *Systematic Reviews in Health Care: Meta-analysis in Context*. London: BMJ Books, 2001.
25. Deeks J, Altman D, Bradburn J. Statistical methods for examining heterogeneity and combining results from several studies in meta-analysis. *Systematic Review in Health Care. Meta-Analysis in Context* London: BMJ Books; 2001.
26. Altuntas B, Kansu A, Ensari A, Girgin N. Celiac disease in Turkish short-statured children and the value of antigliadin antibody in diagnosis. *Acta Paediatr Jpn* 1998;40(5):457-60.
27. Ascher H, Hahn-Zoric M, Hanson LA, Kilander AF, Nilsson LA, Tlaskalova H. Value of serologic markers for clinical diagnosis and population studies of coeliac disease. *Scandinavian Journal of Gastroenterology* 1996;31(1):61-7.
28. Ascher H, Lanner A, Kristiansson B. A new laboratory kit for anti-gliadin IgA at diagnosis and follow-up of childhood celiac disease. *Journal of Pediatric Gastroenterology and Nutrition* 1990;10(4):443-50.
29. Bahia M, Rabello A, Brasileiro FG, Penna FJ. Serum antigliadin antibody levels as a screening criterion before jejunal biopsy indication for celiac disease in a developing country. *Brazilian Journal of Medical and Biological Research = Revista Brasileira De Pesquisas Medicas E Biologicas / Sociedade Brasileira De Biofisica Et Al* 2001;34(11):1415-20.
30. Bardella MT, Trovato C, Cesana BM, Pagliari C, Gebbia C, Peracchi M. Serological markers for coeliac disease: is it time to change? *Digestive and Liver Disease - Official Journal of the Italian Society of Gastroenterology and the Italian Association for the Study of the Liver* 2001;33(5):426-31.
31. Berger R, Schmidt G. Evaluation of six anti-gliadin antibody assays. *Journal of Immunological Methods* 1996;191(1):77-86.
32. Biagi F, Pezzimenti D, Campanella J, Vadacca GB, Corazza GR. Endomysial and tissue transglutaminase antibodies in coeliac sera: a comparison not influenced by previous serological testing. *Scandinavian Journal of Gastroenterology* 2001;36(9):955-8.
33. Bode S, Gudmand-Hoyer E. Evaluation of the gliadin antibody test for diagnosing coeliac disease. *Scandinavian Journal of Gastroenterology* 1994;29(2):148-52.
34. Bode S, Weile B, Krasilnikoff PA, Gudmand-Hoyer E. The diagnostic value of the gliadin antibody test in celiac disease in children: a prospective study. *Journal of Pediatric Gastroenterology and Nutrition* 1993;17(3):260-4.
35. Bonamico M, Tiberti C, Picarelli A, Mariani P, Rossi D, Cipolletta E, et al. Radioimmunoassay to detect antitransglutaminase autoantibodies is the most sensitive and specific screening method for celiac disease. *American Journal of Gastroenterology* 2001;96(5):1536-40.
36. Bottaro G, Volta U, Spina M, Rotolo N, Sciacca A, Musumeci S. Antibody pattern in childhood celiac disease. *Journal of Pediatric Gastroenterology and Nutrition* 1997;24(5):559-62.
37. Carroccio A, Iacono G, D'Amico D, Cavataio F, Teresi S, Caruso C, et al. Production of anti-endomysial antibodies in cultured duodenal mucosa: usefulness in coeliac disease diagnosis. *Scandinavian Journal of Gastroenterology* 2002;37(1):32-8.
38. Carroccio A, Iacono G, Montalto G, Cavataio F, Soresi M, Kazmierska I, et al. Immunologic and absorptive tests in celiac disease: can they replace intestinal biopsies? *Scandinavian Journal of Gastroenterology* 1993;28(8):673-6.
39. Carroccio A, Vitale G, Di Prima L, Chifari N, Napoli S, La Russa C, et al. Comparison of anti-transglutaminase ELISAs and an anti-endomysial antibody assay in the diagnosis of celiac disease:

- a prospective study. *Clinical Chemistry* 2002;48(9):1546-50.
40. Cataldo F, Lio D, Marino V, Picarelli A, Ventura A, Corazza GR. IgG(1) antiendomysium and IgG antitissue transglutaminase (anti-tTG) antibodies in coeliac patients with selective IgA deficiency. Working Groups on Celiac Disease of SIGEP and Club del Tenue. *Gut* 2000;47(3):366-9.
  41. Chan AW, Butzner JD, McKenna R, Fritzlner MJ. Tissue transglutaminase enzyme-linked immunosorbent assay as a screening test for coeliac disease in pediatric patients. *Pediatrics* 2001;107(1):E8.
  42. Chartrand LJ, Agulnik J, Vanounou T, Russo PA, Baehler P, Seidman EG. Effectiveness of antigliadin antibodies as a screening test for coeliac disease in children. *Cmaj - Canadian Medical Association Journal = Journal De L'association Medicale Canadienne* 1997;157(5):527-33.
  43. Chirido FG, Rumbo M, Carabajal P, Castagnino N, Mavromatopulos E, Cirincione V, et al. Analysis of anti-gliadin antibodies by immunoblot analysis and enzyme-linked immunosorbent assay using gliadin fractions as antigens. *Journal of Pediatric Gastroenterology and Nutrition* 1999;29(2):171-7.
  44. Chirido FG, Rumbo M, Carabajal P, Mavromatopulos E, Castagnino N, Anon MC, et al. Determination of anti-omega-gliadin antibodies in serologic tests for coeliac disease. *Scandinavian Journal of Gastroenterology* 2000;35(5):508-16.
  45. Dahele A, Aldhous MC, Humphreys K, Ghosh S. Serum IgA tissue transglutaminase antibodies in coeliac disease and other gastrointestinal diseases. *Q J Med* 2001;94(4):195-205.
  46. Di Leo M, Weisz G, Ansaldi BN. Serum and salivary antiendomysium antibodies in the screening of coeliac disease. *Panminerva Medica* 1999;41(1):68-71.
  47. Dickey W, McMillan SA, Hughes DF. Sensitivity of serum tissue transglutaminase antibodies for endomysial antibody positive and negative coeliac disease. *Scandinavian Journal of Gastroenterology* 2001;36(5):511-4.
  48. Falth-Magnusson K, Jansson G, Stenhammar L, Magnusson KE. Serum food antibodies analyzed by enzyme-linked immunosorbent assay (ELISA) and diffusion-in-gel (DIG)-ELISA methods in children with and without coeliac disease. *Journal of Pediatric Gastroenterology and Nutrition* 1994;18(1):56-62.
  49. Gillett HR, Freeman HJ. Comparison of IgA endomysium antibody and IgA tissue transglutaminase antibody in coeliac disease. *Canadian Journal of Gastroenterology = Journal Canadien De Gastroenterologie* 2000;14(8):668-71.
  50. Gonczi J, Skerritt JH, Mitchell JD. A reliable screening test for coeliac disease: enzyme-linked immunosorbent assay to detect anti-gliadin antibodies in serum. *Australian and New Zealand Journal of Medicine* 1991;21(5):723-31.
  51. Hallstrom O. Comparison of IgA-class reticulin and endomysium antibodies in coeliac disease and dermatitis herpetiformis. *Gut* 1989;30(9):1225-32.
  52. Hansson T, Dahlbom I, Hall J, Holtz A, Elfman L, Dannaeus A, et al. Antibody reactivity against human and guinea pig tissue transglutaminase in children with coeliac disease. *Journal of Pediatric Gastroenterology and Nutrition* 2000;30(4):379-84.
  53. Iltanen S, Rantala I, Laippala P, Holm K, Partanen J, Maki M. Expression of HSP-65 in jejunal epithelial cells in patients clinically suspected of coeliac disease. *Autoimmunity* 1999;31(2):125-32.
  54. Kaukinen K, Turjanmaa K, Maki M, Partanen J, Venalainen R, Reunala T, et al. Intolerance to cereals is not specific for coeliac disease. *Scandinavian Journal of Gastroenterology* 2000;35(9):942-6.
  55. Kolho KL, Savilahti E. IgA endomysium antibodies on human umbilical cord: an excellent diagnostic tool for coeliac disease in childhood. *Journal of Pediatric Gastroenterology and Nutrition* 1997;24(5):563-7.
  56. Kumar V, Lerner A, Valeski JE, Beutner EH, Chorzeliski TP, Rossi T. Endomysial antibodies in the diagnosis of coeliac disease and the effect of gluten on antibody titers. *Immunological Investigations* 1989;18(1-4):533-44.
  57. Ladinser B, Rossipal E, Pittschieler K. Endomysium antibodies in coeliac disease: an improved method. *Gut* 1994;35(6):776-8.
  58. Lerner A, Kumar V, Iancu TC. Immunological diagnosis of childhood coeliac disease: comparison between antigliadin, antireticulin and antiendomysial antibodies. *Clinical and Experimental Immunology* 1994;95(1):78-82.

59. Lindberg T, Nilsson LA, Borulf S, Cavell B, Fallstrom SP, Jansson U, et al. Serum IgA and IgG gliadin antibodies and small intestinal mucosal damage in children. *Journal of Pediatric Gastroenterology and Nutrition* 1985;4(6):917-22.
60. Lindquist BL, Rogozinski T, Moi H, Danielsson D, Olcen P. Endomysium and gliadin IgA antibodies in children with coeliac disease. *Scandinavian Journal of Gastroenterology* 1994;29(5):452-6.
61. Lock RJ, Pitcher MC, Unsworth DJ. IgA anti-tissue transglutaminase as a diagnostic marker of gluten sensitive enteropathy. *Journal of Clinical Pathology* 1999;52(4):274-7.
62. Maki M, Holm K, Lipsanen V, Hallstrom O, Viander M, Collin P, et al. Serological markers and HLA genes among healthy first-degree relatives of patients with coeliac disease. *Lancet* 1991;338(8779):1350-3.
63. McMillan SA, Haughton DJ, Biggart JD, Edgar JD, Porter KG, McNeill TA. Predictive value for coeliac disease of antibodies to gliadin, endomysium, and jejunum in patients attending for jejunal biopsy. *Bmj (Clinical Research Ed)* 1991;303(6811):1163-5.
64. Meini A, Pillan NM, Villanacci V, Monafò V, Ugazio AG, Plebani A. Prevalence and diagnosis of coeliac disease in IgA-deficient children. *Annals of Allergy, Asthma & Immunology - Official Publication of the American College of Allergy, Asthma, & Immunology* 1996;77(4):333-6.
65. Pacht A, Sinai N, Hornstein L, Kumar V, Ish-Shalom N, Lerner A. The diagnostic reliability of anti-endomysial antibody in coeliac disease: the north Israel experience. *Israel Journal of Medical Sciences* 1995;31(4):218-20.
66. Picarelli A, Sabbatella L, Di Tola M, Gabrielli F, Greco R, Di Cello T, et al. Coeliac disease diagnosis in misdiagnosed children. *Pediatric Research* 2000;48(5):590-2.
67. Poddar U, Thapa BR, Nain CK, Prasad A, Singh K. Coeliac disease in India: are they true cases of coeliac disease? *Journal of Pediatric Gastroenterology and Nutrition* 2002;35(4):508-12.
68. Rich EJ, Christie DL. Anti-gliadin antibody panel and xylose absorption test in screening for coeliac disease. *Journal of Pediatric Gastroenterology and Nutrition* 1990;10(2):174-8.
69. Russo PA, Chartrand LJ, Seidman E. Comparative analysis of serologic screening tests for the initial diagnosis of coeliac disease. *Pediatrics* 1999;104(1 Pt 1):75-8.
70. Salmaso C, Ocmant A, Pesce G, Altrinetti V, Montagna P, Descalzi D, et al. Comparison of ELISA for tissue transglutaminase autoantibodies with antiendomysium antibodies in pediatric and adult patients with coeliac disease. *Allergy* 2001;56(6):544-7.
71. Sategna-Guidetti C, Grosso S, Bruno M, Grosso SB. Comparison of serum anti-gliadin, anti-endomysium, and anti-jejunum antibodies in adult coeliac sprue. *Journal of Clinical Gastroenterology* 1995;20(1):17-21.
72. Sblattero D, Berti I, Trevisiol C, Marzari R, Tommasini A, Bradbury A, et al. Human recombinant tissue transglutaminase ELISA: an innovative diagnostic assay for coeliac disease. *American Journal of Gastroenterology* 2000;95(5):1253-7.
73. Sulkanen S, Collin P, Laurila K, Maki M. IgA- and IgG-class antihuman umbilical cord antibody tests in adult coeliac disease. *Scandinavian Journal of Gastroenterology* 1998;33(3):251-4.
74. Sulkanen S, Halttunen T, Laurila K, Kolho KL, Korponay-Szabo IR, Sarnesto A, et al. Tissue transglutaminase autoantibody enzyme-linked immunosorbent assay in detecting coeliac disease. *Gastroenterology* 1998;115(6):1322-8.
75. Tesei N, Sugai E, Vazquez H, Smecuol E, Niveloni S, Mazure R, et al. Antibodies to human recombinant tissue transglutaminase may detect coeliac disease patients undiagnosed by endomysial antibodies. *Alimentary Pharmacology & Therapeutics* 2003;17(11):1415-23.
76. Troncone R, Maurano F, Rossi M, Micillo M, Greco L, Auricchio R, et al. IgA antibodies to tissue transglutaminase: An effective diagnostic test for coeliac disease. *Journal of Pediatrics* 1999;134(2):166-71.
77. Valdimarsson T, Franzen L, Grodzinsky E, Skogh T, Strom M. Is small bowel biopsy necessary in adults with suspected coeliac disease and IgA anti-endomysium antibodies? 100% positive predictive value for coeliac disease in adults. *Digestive Diseases and Sciences* 1996;41(1):83-7.
78. Valentini RA, Andreani ML, Corazza GR, Gasbarrini G. IgA endomysium antibody: a valuable tool in the screening of coeliac disease

- but not its follow-up. *Italian Journal of Gastroenterology* 1994;26(6):279-82.
79. Vitoria JC, Arrieta A, Ortiz L, Ayesta A. Antibodies to human tissue transglutaminase for the diagnosis of celiac disease. *Journal of Pediatric Gastroenterology and Nutrition* 2001;33(3):349-50.
  80. Vogelsang H, Genser D, Wyatt J, Lochs H, Ferenci P, Granditsch G, et al. Screening for celiac disease: a prospective study on the value of noninvasive tests. *American Journal of Gastroenterology* 1995;90(3):394-8.
  81. Volta U, Molinaro N, De Franceschi L, Fratangelo D, Bianchi FB. IgA anti-endomysial antibodies on human umbilical cord tissue for celiac disease screening. Save both money and monkeys. *Digestive Diseases and Sciences* 1995;40(9):1902-5.
  82. Whelan A, Willoughby R, Weir D. Human umbilical vein endothelial cells: a new easily available source of endomysial antigens. *European Journal of Gastroenterology & Hepatology* 1996;8(10):961-6.
  83. Wolters V, Vooijs-Moulaert A, Burger H, Brooimans R, De Schryver J, Rijkers G, et al. Human tissue transglutaminase enzyme linked immunosorbent assay outperforms both the guinea pig based tissue transglutaminase assay and anti-endomysium antibodies when screening for coeliac disease. *European Journal of Pediatrics* 2002;161(5):284-7.
  84. Di Leo M, Weisz G, Ansaldi BN. Serum and salivary antiendomysium antibodies in the screening of coeliac disease. *Panminerva Medica* 1999;41(1):68-71.
  85. Artan R. Antigliadin antibody measurement as a screening test for childhood coeliac disease. *Int Med J* 1998;5(3):209-12.
  86. Dahele A, Kingstone K, Bode J, Anderson D, Ghosh S. Anti-endomysial antibody negative celiac disease: does additional serological testing help? *Digestive Diseases and Sciences* 2001;46(1):214-21.
  87. Brandborg LL, Goldberg SB, Breidenbach WC. Human coccidiosis--a possible cause of malabsorption. *New England Journal of Medicine* 1970;283(24):1306-13.
  88. Hazama H, Omagari K, Masuda J, Ohba K, Kinoshita H, Matsuo I, et al. Automated enzymatic mitochondrial antibody assay for the diagnosis of primary biliary cirrhosis: applications of a routine diagnostic tool for the detection of antimitochondrial antibodies. *Journal of Gastroenterology and Hepatology* 2002;17(3):316-23.
  89. Cheli R, Giacosa A. Inflammatory cell count and identification in specific duodenitis. (Celiac disease, Whipple's disease and Crohn's disease). Comparison with jejunal findings. *Endoscopy* 1977;9(3):147-51.
  90. Talbot HS. A report on sexual function in paraplegics. *J Urol* 1949;61:265-70.
  91. Fernandez-Arquero M, Polanco I, Escobar H, Figueredo MA, de la Concha EG, Clerici-Larradet N, et al. HLA-DQ alleles and susceptibility to celiac disease in Spanish children. *Tissue Antigens* 1995;45(2):145-7.
  92. Palavecino EA, Mota AH, Awad J, DeRosa S, Herrera M, Chertkoff L, et al. HLA and celiac disease in Argentina: involvement of the DQ subregion. *Disease Markers* 1990;8(1):5-10.
  93. Spurkland A, Ingvarsson G, Falk ES, Knutsen I, Sollid LM, Thorsby E. Dermatitis herpetiformis and celiac disease are both primarily associated with the HLA-DQ (alpha 1\*0501, beta 1\*02) or the HLA-DQ (alpha 1\*03, beta 1\*0302) heterodimers. *Tissue Antigens* 1997;49(1):29-34.
  94. Hall MA, Lanchbury JS, Lee JS, Welsh K, I, Ciclitira PJ. HLA-DQ2 second-domain polymorphisms may explain increased trans-associated risk in celiac disease and dermatitis herpetiformis. *Human Immunology* 1993;38(4):284-92.
  95. Spurkland A, Sollid LM, Ronningen KS, Bosnes V, Ek J, Vartdal F, et al. Susceptibility to develop celiac disease is primarily associated with HLA-DQ alleles. *Human Immunology* 1990;29(3):157-65.
  96. Bao F, Yu L, Babu S, Wang T, Hoffenberg EJ, Rewers M, et al. One third of HLA DQ2 homozygous patients with type 1 diabetes express celiac disease-associated transglutaminase autoantibodies. *Journal of Autoimmunity* 1999;13(1):143-8.
  97. Martin-Villa JM, Lopez-Suarez JC, Perez-Blas M, Martinez-Laso J, Ferre-Lopez S, Garcia-Torre C, et al. Coeliac- and enteropathy-associated autoantibodies in Spanish insulin-dependent diabetes mellitus patients and their relation to HLA antigens. *Journal of Diabetes and Its Complications* 2001;15(1):38-43.

98. Kaukinen K, Partanen J, Maki M, Collin P. HLA-DQ typing in the diagnosis of celiac disease. *American Journal of Gastroenterology* 2002;97(3):695-9.
99. Saukkonen T, Ilonen J, Akerblom HK, Savilahti E. Prevalence of coeliac disease in siblings of patients with Type I diabetes is related to the prevalence of DQB1\*02 allele. *Diabetologia* 2001;44(8):1051-3.
100. Congia M, Frau F, Lampis R, Frau R, Mele R, Cucca F, et al. A high frequency of the A30, B18, DR3, DRw52, DQw2 extended haplotype in Sardinian celiac disease patients: further evidence that disease susceptibility is conferred by DQ A1\*0501, B1\*0201. *Tissue Antigens* 1992;39(2):78-83.
101. Herrera M, Theiler G, Augustovski F, Chertkoff L, Fainboim L, DeRosa S, et al. Molecular characterization of HLA class II genes in celiac disease patients of Latin American Caucasian origin. *Tissue Antigens* 1994;43(2):83-7.
102. Petronzelli F, Ferrante P, Triglione P, Bonamico M, Mazzilli MC. Oligotyping of celiac multiplex families with the 11th International Histocompatibility Workshop reagents. *Tissue Antigens* 1991;38(5):238-9.
103. Mantovani V, Corazza GR, Angelini G, Delfino L, Frisoni M, Mirri P, et al. Molecular analysis of HLA-DQ A alleles in coeliac disease lack of a unique disease-associated sequence. *Clinical and Experimental Immunology* 1991;83(1):74-8.
104. Agardh D, Nilsson A, Carlsson A, Kockum I, Lernmark A, Ivarsson SA. Tissue transglutaminase autoantibodies and human leucocyte antigen in Down Syndrome patients with coeliac disease. *Acta Paediatrica (Oslo, Norway - 1992)* 2002;91(1):34-8.
105. Bonamico M, Mazzilli MC, Morellini M, Vania A, Carpino F, Nicotra MR, et al. Expression of class II MHC antigens in the intestinal epithelium of pediatric celiac disease. *Journal of Pediatric Gastroenterology and Nutrition* 1989;9(3):269-75.
106. Bonamico M, Morellini M, Mariani P, Triglione P, Trabace S, Lulli P, et al. HLA antigens and antigliadin antibodies in coeliac disease. *Dis Markers* 1991;9(6):313-7.
107. Brett PM, Yiannakou JY, Morris MA, Vaughan R, Curtis D, Ciclitira PJ. Common HLA alleles, rather than rare mutants, confer susceptibility to coeliac disease. *Annals of Human Genetics* 1999;63(Pt 3):217-25.
108. Collin P, Syrjanen J, Partanen J, Pasternack A, Kaukinen K, Mustonen J. Celiac disease and HLA DQ in patients with IgA nephropathy. *American Journal of Gastroenterology* 2002;97(10):2572-6.
109. Csizmadia CG, Mearin ML, Oren A, Kromhout A, Crusius JB, von Blomberg BM, et al. Accuracy and cost-effectiveness of a new strategy to screen for celiac disease in children with Down syndrome. *Journal of Pediatrics* 2000;137(6):756-61.
110. Falchuk ZM, Katz AJ, Shwachman H, Rogentine GN, Strober W. Gluten-sensitive enteropathy: genetic analysis and organ culture study in 35 families. *Scandinavian Journal of Gastroenterology* 1978;13(7):839-43.
111. Fedrick JA, Pandey JP, Verkasalo M, Teppo AM, Fudenberg HH. Immunoglobulin allotypes and the immune response to wheat gliadin in a Finnish population with celiac disease. *Experimental and Clinical Immunogenetics* 1985;2(4):185-90.
112. Hansson T, Anneren G, Sjoberg O, Klareskog L, Dannaeus A. Celiac disease in relation to immunologic serum markers, trace elements, and HLA-DR and DQ antigens in Swedish children with Down syndrome. *J Pediatr Gastroenterol Nutr* 1999;29(3):286-92.
113. Lampasona V, Bonfanti R, Bazzigaluppi E, Venerando A, Chiumello G, Bosi E, et al. Antibodies to tissue transglutaminase C in type I diabetes. *Diabetologia* 1999;42(10):1195-8.
114. Lorini R, Scotta MS, Cortona L, Avanzini MA, Vitali L, De Giacomo C, et al. Celiac disease and type I (insulin-dependent) diabetes mellitus in childhood: follow-up study. *Journal of Diabetes and Its Complications* 1996;10(3):154-9.
115. Lundin KE, Sollid LM, Anthonsen D, Noren O, Molberg O, Thorsby E, et al. Heterogeneous reactivity patterns of HLA-DQ-restricted, small intestinal T-cell clones from patients with celiac disease. *Gastroenterology* 1997;112(3):752-9.
116. Mearin ML, Koninckx CR, Biemond I, Polanco I, Pena AS. Influence of genetic factors on the serum levels of antigliadin antibodies in celiac disease. *Journal of Pediatric Gastroenterology and Nutrition* 1984;3(3):373-7.
117. Silva EM, Fernandes M, I, Galvao LC, Sawamura R, Donadi EA. Human leukocyte antigen class II alleles in white Brazilian patients with celiac disease. *Journal of Pediatric*

- Gastroenterology and Nutrition 2000;31(4):391-4.
118. Stern M. Comparative evaluation of serologic tests for celiac disease: a European initiative toward standardization. *Journal of Pediatric Gastroenterology and Nutrition* 2000;31(5):513-9.
  119. Bevan S, Popat S, Braegger CP, Busch A, O'Donoghue D, Falth-Magnusson K, et al. Contribution of the MHC region to the familial risk of coeliac disease. *Journal of Medical Genetics* 1999;36(9):687-90.
  120. Catassi C, Doloretta MM, Ratsch IM, De Virgiliis S, Cucca F. The distribution of DQ genes in the Saharawi population provides only a partial explanation for the high celiac disease prevalence. *Tissue Antigens* 2001;58(6):402-6.
  121. Clot F, Gianfrani C, Babron MC, Bouguerra F, Southwood S, Kagnoff MF, et al. HLA-DR53 molecules are associated with susceptibility to celiac disease and selectively bind gliadin-derived peptides. *Immunogenetics* 1999;49(9):800-7.
  122. Holm K, Savilahti E, Koskimies S, Lipsanen V, Maki M. Immunohistochemical changes in the jejunum in first degree relatives of patients with coeliac disease and the coeliac disease marker DQ genes. HLA class II antigen expression, interleukin-2 receptor positive cells and dividing crypt cells. *Gut* 1994;35(1):55-60.
  123. Karell K, Holopainen P, Mustalahti K, Collin P, Maki M, Partanen J. Not all HLA DR3 DQ2 haplotypes confer equal susceptibility to coeliac disease: transmission analysis in families. *Scand J Gastroenterol* 2002;37(1):56-61.
  124. Meddeb-Garnaoui A, Zeliszewski D, Mougnot JF, Djilali-Saiah I, Caillat-Zucman S, Dormoy A, et al. Reevaluation of the relative risk for susceptibility to celiac disease of HLA-DRB1, -DQA1, -DQB1, -DPB1, and -TAP2 alleles in a French population. *Human Immunology* 1995;43(3):190-9.
  125. Ruiz MY, Olivares JL. Three-loci HLA haplotypes in Spanish celiac children and healthy subjects: estimation of linkage disequilibrium and haplotype frequencies. *Am J Gastroenterol* 2001;96(5):1455-9.
  126. Volta U, Bellentani S, Bianchi FB, Brandi G, De Franceschi L, Miglioli L, et al. High prevalence of celiac disease in Italian general population. *Dig Dis Sci* 2001;46(7):1500-5.
  127. O'Driscoll BR, Stevens FM, O'Gorman TA, Finnegan P, McWeeney JJ, Little MP, et al. HLA type of patients with coeliac disease and malignancy in the west of Ireland. *Gut* 1982;23(8):662-5.
  128. Hoffenberg EJ, MacKenzie T, Barriga KJ, Eisenbarth GS, Bao F, Haas JE, et al. A prospective study of the incidence of childhood celiac disease. *J Pediatr* 2003;143(3):308-14.
  129. Holm KH. Correlation of HLA-DR alleles to jejunal mucosal morphology in healthy first-degree relatives of coeliac disease patients. *Eur J Gastroenterol Hepatol* 1993;5(1):35-9.
  130. Louka AS, Moodie SJ, Karell K, Bolognesi E, Ascher H, Greco L, et al. A collaborative European search for non-DQA1 \*05-DQB1 \*02 Celiac disease loci on HLA-Dr3 haplotypes: Analysis of transmission from homozygous parents. *Hum Immunol* 2003;64(3):350-8.
  131. Agrawal S, Gupta A, Yachha SK, Muller-Myhsok B, Mehrotra P, Agarwal SS. Association of human leucocyte-DR and DQ antigens in coeliac disease: a family study. *Journal of Gastroenterology and Hepatology* 2000;15(7):771-4.
  132. Louka AS, Lie BA, Talseth B, Ascher H, Ek J, Gudjonsdottir AH, et al. Coeliac disease patients carry conserved HLA-DR3-DQ2 haplotypes revealed by association of TNF alleles. *Immunogenetics* 2003;55(5):339-43.
  133. Van Belzen MJ, Meijer Jos WR, Sandkuijl LA, Bardoel Alfons FJ, Mulder Chris JJ, Pearson PL, et al. A major non-HLA locus in celiac disease maps to chromosome 19. *Gastroenterology* 2003;125(4):1032-41.
  134. Castro M, Crino A, Papadatou B, Purpura M, Giannotti A, Ferretti F, et al. Down Syndrome and celiac disease: the prevalence of high IgA-antigliadin antibodies and HLA-DR and DQ antigens in trisomy 21. *Journal of Pediatric Gastroenterology and Nutrition* 1993;16(3):265-8.
  135. Fine KD, Do K, Schulte K, Ogunji F, Guerra R, Osowski L, et al. High prevalence of celiac sprue-like HLA-DQ genes and enteropathy in patients with the microscopic colitis syndrome. *American Journal of Gastroenterology* 2000;95(8):1974-82.
  136. Iltanen S, Holm K, Partanen J, Laippala P, Maki M. Increased density of jejunal gammadelta+ T cells in patients having normal mucosa--marker

- of operative autoimmune mechanisms?  
Autoimmunity 1999;29(3):179-87.
137. Perez-Bravo F, Araya M, Mondragon A, Rios G, Alarcon T, Roessler JL, et al. Genetic differences in HLA-DQA1\* and DQB1\* allelic distributions between celiac and control children in Santiago, Chile. *Human Immunology* 1999;60(3):262-7.
  138. Arranz E, Telleria JJ, Sanz A, Martin JF, Alonso M, Calvo C, et al. HLA-DQA1\*0501 and DQB1\*02 homozygosity and disease susceptibility in Spanish coeliac patients. *Experimental and Clinical Immunogenetics* 1997;14(4):286-90.
  139. Boy MF, La Nasa G, Balestrieri A, Cherchi M, V, Usai P. Distribution of HLA-DPB1, -DQB1 - DQA1 alleles among Sardinian celiac patients. *Disease Markers* 1995;12(3):199-204.
  140. Djilali-Saiah I, Caillat-Zucman S, Schmitz J, Chaves-Vieira ML, Bach JF. Polymorphism of antigen processing (TAP, LMP) and HLA class II genes in celiac disease. *Human Immunology* 1994;40(1):8-16.
  141. Djilali-Saiah I, Schmitz J, Harfouch-Hammoud E, Mougnot JF, Bach JF, Caillat-Zucman S. CTLA-4 gene polymorphism is associated with predisposition to coeliac disease. *Gut* 1998;43(2):187-9.
  142. Erkan T, Kutlu T, Yilmaz E, Cullu F, Tumay GT. Human leukocyte antigens in Turkish pediatric celiac patients. *Turkish Journal of Pediatrics* 1999;41(2):181-8.
  143. Fernandez-Arquero M, Figueredo MA, Maluenda C, de la Concha EG. HLA-linked genes acting as additive susceptibility factors in celiac disease. *Human Immunology* 1995;42(4):295-300.
  144. Ferrante P, Petronzelli F, Mariani P, Bonamico M, Mazzilli MC. Oligotyping of Italian celiac patients with the 11th International Histocompatibility Workshop reagents. *Tissue Antigens* 1992;39(1):38-9.
  145. Mazzilli MC, Ferrante P, Mariani P, Martone E, Petronzelli F, Triglione P, et al. A study of Italian pediatric celiac disease patients confirms that the primary HLA association is to the DQ(alpha 1\*0501, beta 1\*0201) heterodimer. *Human Immunology* 1992;33(2):133-9.
  146. Michalski JP, McCombs CC, Arai T, Elston RC, Cao T, McCarthy CF, et al. HLA-DR, DQ genotypes of celiac disease patients and healthy subjects from the West of Ireland. *Tissue Antigens* 1996;47(2):127-33.
  147. Ruiz del Prado MY, Olivares Lopez JL, Lazaro AA, Lasierra Diaz MP. HLA system. Phenotypic and gene frequencies in celiac and healthy subjects from the same geographical area. *Revista Espanola De Enfermedades Digestivas - Organo Oficial De La Sociedad Espanola De Patologia Digestiva* 2001;93(2):106-13.
  148. Tighe MR, Hall MA, Ashkenazi A, Siegler E, Lanchbury JS, Ciclitira PJ. Celiac disease among Ashkenazi Jews from Israel. A study of the HLA class II alleles and their associations with disease susceptibility. *Human Immunology* 1993;38(4):270-6.
  149. Tighe MR, Hall MA, Barbado M, Cardi E, Welsh K, I, Ciclitira PJ. HLA class II alleles associated with celiac disease susceptibility in a southern European population. *Tissue Antigens* 1992;40(2):90-7.
  150. Tuysuz B, Dursun A, Kutlu T, Sokucu S, Cine N, Suoglu O, et al. HLA-DQ alleles in patients with celiac disease in Turkey. *Tissue Antigens* 2001;57(6):540-2.
  151. Howell WM, Leung ST, Jones DB, Nakshabendi I, Hall MA, Lanchbury JS, et al. HLA-DRB, -DQA, and -DQB polymorphism in celiac disease and enteropathy-associated T-cell lymphoma. Common features and additional risk factors for malignancy. *Hum Immunol* 1995;43(1):29-37.
  152. Sacchetti L, Calcagno G, Ferrajolo A, Sarrantonio C, Troncone R, Micillo M, et al. Discrimination between celiac and other gastrointestinal disorders in childhood by rapid human lymphocyte antigen typing. *Clinical Chemistry* 1998;44(8 Pt 1):1755-7.
  153. Pettersson A, Sjoberg K, Lernmark A, Eriksson S. HLA genotypes in coeliac disease and healthy individuals carrying gliadin antibodies. *Eur J Gastroenterol Hepatol* 1993;5(6):445-50.
  154. Arnason A, Skaftadottir I, Sigmundsson J, Mooney E, Bjornsson J, Cariglia N, et al. The association between coeliac disease, dermatitis herpetiformis and certain HLA-antigens in Icelanders. *European Journal of Immunogenetics - Official Journal of the British Society for Histocompatibility and Immunogenetics* 1994;21(6):457-60.
  155. Balas A, Vicario JL, Zambrano A, Acuna D, Garcia-Novo D. Absolute linkage of celiac disease and dermatitis herpetiformis to HLA-DQ. *Tissue Antigens* 1997;50(1):52-6.
  156. Colonna M, Mantovani W, Corazza GR, Barboni P, Gasbarrini G, Ferrara GB, et al. Reassessment

- of HLA association with celiac disease in special reference to the DP association. *Human Immunology* 1990;29(4):263-74.
157. Congia M, Cucca F, Frau F, Lampis R, Melis L, Clemente MG, et al. A gene dosage effect of the DQA1\*0501/DQB1\*0201 allelic combination influences the clinical heterogeneity of celiac disease. *Human Immunology* 1994;40(2):138-42.
  158. Lio D, Bonanno CT, D'Anna C, De Luca S, Gervasi F, Cavataio F, et al. Gluten stimulation induces an in vitro expansion of peripheral blood T gamma delta cells from HLA-DQ2-positive subjects of families of patients with celiac disease. *Experimental and Clinical Immunogenetics* 1998;15(1):46-55.
  159. Tumer L, Altuntas B, Hasanoglu A, Soylemezoglu O, Arinsoy T. Pattern of human leukocyte antigens in Turkish children with celiac disease. *Pediatrics International - Official Journal of the Japan Pediatric Society* 2000;42(6):678-81.
  160. Book L, Hart A, Black J, Feolo M, Zone JJ, Neuhausen SL. Prevalence and clinical characteristics of celiac disease in Down syndrome in a US study. *American Journal of Medical Genetics* 2001;98(1):70-4.
  161. Farre C, Humbert P, Vilar P, Varea V, Aldeguer X, Carnicer J, et al. Serological markers and HLA-DQ2 haplotype among first-degree relatives of celiac patients. *Catalonian Coeliac Disease Study Group. Digestive Diseases and Sciences* 1999;44(11):2344-9.
  162. Iltanen S, Collin P, Korpela M, Holm K, Partanen J, Polvi A, et al. Celiac disease and markers of celiac disease latency in patients with primary Sjogren's syndrome. *American Journal of Gastroenterology* 1999;94(4):1042-6.
  163. Kaur G, Sarkar N, Bhatnagar S, Kumar S, Rappaport CC, Bhan MK, et al. Pediatric celiac disease in India is associated with multiple DR3-DQ2 haplotypes. *Human Immunology* 2002;63(8):677-82.
  164. Neuhausen SL, Weizman Z, Camp NJ, Elbedour K, Sheffield VC, Zone JJ, et al. HLA DQA1-DQB1 genotypes in Bedouin families with celiac disease. *Human Immunology* 2002;63(6):502-7.
  165. Sumnik Z, Kolouskova S, Cinek O, Kotalova R, Vavrinc J, Snajderova M. HLA-DQA1\*05-DQB1\*0201 positivity predisposes to coeliac disease in Czech diabetic children. *Acta Paediatrica (Oslo, Norway - 1992)* 2000;89(12):1426-30.
  166. Liu J, Juo S, Holopainen P, Terwilliger J, Tong X, Grunn A, et al. Genomewide linkage analysis of celiac disease in Finnish families. *American Journal of Human Genetics* 2002;70(1):51-9.
  167. Polvi A, Eland C, Koskimies S, Maki M, Partanen J. HLA DQ and DP in Finnish families with celiac disease. *Eur J Immunogenet* 1996;23(3):221-34.
  168. Larizza D, Calcaterra V, Luinetti O, Villani L, De Silvestri A, Autelli M, et al. Evidence for immunogenetic predisposition in children with celiac disease and autoimmune thyroid disease. *Int J Med Biol Environ* 2001;29(2):143-8.
  169. Book L, Zone JJ, Neuhausen SL. Prevalence of celiac disease among relatives of sib pairs with celiac disease in U.S. families. *American Journal of Gastroenterology* 2003;98(2):377-81.
  170. Failla P, Ruberto C, Pagano MC, Lombardo M, Bottaro G, Perichon B, et al. Celiac disease in Down Syndrome with HLA serological and molecular studies. *J Pediatr Gastroenterol Nutr* 1996;23(3):303-6.
  171. Maki M, Mustalahti K, Kokkonen J, Kulmala P, Haapalahti M, Karttunen T, et al. Prevalence of Celiac disease among children in Finland. *New England Journal of Medicine* 2003;348(25):2517-24.
  172. Mustalahti K, Sulkanen S, Holopainen P, Laurila K, Collin P, Partanen J, et al. Coeliac disease among healthy members of multiple case coeliac disease families. *Scandinavian Journal of Gastroenterology* 2002;37(2):161-5.
  173. Zubillaga P, Vidales MC, Zubillaga I, Ormaechea V, Garcia-Urkiola N, Vitoria JC. HLA-DQA1 and HLA-DQB1 genetic markers and clinical presentation in celiac disease. *Journal of Pediatric Gastroenterology and Nutrition* 2002;34(5):548-54.
  174. Bouguerra F, Babron MC, Eliaou JF, Debbabi A, Clot J, Khaldi F, et al. Synergistic effect of two HLA heterodimers in the susceptibility to celiac disease in Tunisia. *Genetic Epidemiology* 1997;14(4):413-22.
  175. Popat S, Hearle N, Wixey J, Hogberg L, Bevan S, Lim W, et al. Analysis of the CTLA4 gene in Swedish coeliac disease patients. *Scand J Gastroenterol* 2002;37(1):28-31.
  176. Karelk K, Louka AS, Moodie SJ, Ascher H, Clot F, Greco L, et al. HLA types in celiac disease patients not carrying the DQA1 \*05-DQB1 \*02 (DQ2) heterodimer: Results from the European

- genetics cluster on celiac disease. *Hum Immunol* 2003;64(4):469-77.
177. Lewis C, Book L, Black J, Sawitzke A, Cannon-Albright L, Zone J, et al. Celiac disease and human leukocyte antigen genotype: accuracy of diagnosis in self-diagnosed individuals, dosage effect, and sibling risk. *J Pediatr Gastroenterol Nutr* 2000;31(1):22-7.
  178. Howard FM, Carter CO, Candy DC, Harries JT. A family study of protracted diarrhoea in infancy. *Journal of Medical Genetics* 1981;18(2):81-6.
  179. Volta U, Molinaro N, De Franceschi L, Bianchi FB. Human umbilical cord as substrate for IgA antiendomysial antibodies allows large scale screening for celiac sprue. *J Clin Gastroenterol* 1996;23(1):18-20.
  180. Trevisiol C, Ventura A, Baldas V, Tommasini A, Santon D, Martellosi S, et al. A reliable screening procedure for coeliac disease in clinical practice. *Scand J Gastroenterol* 2002;37(6):679-84.
  181. Bonamico M, Mariani P, Mazzilli MC, Triglione P, Lionetti P, Ferrante P, et al. Frequency and clinical pattern of celiac disease among siblings of celiac children. *J Pediatr Gastroenterol Nutr* 1996;23(2):159-63.
  182. Catassi C, Ratsch IM, Fabiani E, Ricci S, Bordicchia F, Pierdomenico R, et al. High prevalence of undiagnosed coeliac disease in 5280 Italian students screened by antigliadin antibodies. *Acta Paediatr* 1995;84(6):672-6.
  183. Catassi C, Ratsch IM, Fabiani E, Rossini M, Bordicchia F, Candela F, et al. Coeliac disease in the year 2000: exploring the iceberg. *Lancet* 1994;343(8891):200-3.
  184. Grodzinsky E, Hed J, Lieden G, Sjogren F, Strom M. Presence of IgA and IgG antigliadin antibodies in healthy adults as measured by micro-ELISA. Effect of various cutoff levels on specificity and sensitivity when diagnosing coeliac disease. *Int Arch Allergy Appl Immunol* 1990;92(2):119-23.
  185. Grodzinsky E, Franzen L, Hed J, Strom M. High prevalence of celiac disease in healthy adults revealed by antigliadin antibodies. *Ann Allergy* 1992;69(1):66-70.
  186. Lagerqvist C, Ivarsson A, Juto P, Persson LA, Hernell O. Screening for adult coeliac disease - which serological marker(s) to use? *J Intern Med* 2001;250(3):241-8.
  187. Weile B, Grodzinsky E, Skogh T, Jordal R, Cavell B, Krasilnikoff PA. Screening Danish blood donors for antigliadin and antiendomysium antibodies. *Acta Paediatr* 1996;412(Suppl):46.
  188. McMillan SA, Watson RP, McCrum EE, Evans AE. Factors associated with serum antibodies to reticulin, endomysium, and gliadin in an adult population. *Gut* 1996;39(1):43-7.
  189. Stenhammar L, Brandt A, Wagermark J. A family study of coeliac disease. *Acta Paediatr Scand* 1982;71(4):625-8.
  190. Maki M, Holm K, Lipsanen V, Hallstrom O, Viander M, Collin P, et al. Serological markers and HLA genes among healthy first-degree relatives of patients with coeliac disease. *Lancet* 1991;338(8779):1350-3.
  191. Sjoberg K, Wassmuth R, Reichstetter S, Eriksson KF, Ericsson UB, Eriksson S. Gliadin antibodies in adult insulin-dependent diabetes--autoimmune and immunogenetic correlates. *Autoimmunity* 2000;32(4):217-28.
  192. Carlsson AK, Axelsson IE, Borulf SK, Bredberg AC, Lindberg BA, Sjoberg KG, et al. Prevalence of IgA-antiendomysium and IgA-antigliadin autoantibodies at diagnosis of insulin-dependent diabetes mellitus in Swedish children and adolescents. *Pediatrics* 1999;103(6 Pt 1):1248-52.
  193. Ivarsson A, Persson LA, Nystrom L, Ascher H, Cavell B, Danielsson L, et al. Epidemic of coeliac disease in Swedish children. *Acta Paediatr* 2000;89(2):165-71.
  194. Maki M, Holm K. Incidence and prevalence of coeliac disease in Tampere. Coeliac disease is not disappearing. *Acta Paediatrica Scandinavica* 1990;79(10):980-2.
  195. Ivarsson A, Persson LA, Nystrom L, Hernell O. The Swedish coeliac disease epidemic with a prevailing twofold higher risk in girls compared to boys may reflect gender specific risk factors. *Eur J Epidemiol* 2003;18(7):677-84.
  196. Weile B, Krasilnikoff PA. Extremely low incidence rates of celiac disease in the Danish population of children. *J Clin Epidemiol* 1993;46(7):661-4.
  197. Bode S, Gudmand-Hoyer E. Incidence and prevalence of adult coeliac disease within a defined geographic area in Denmark. *Scand J Gastroenterol* 1996;31(7):694-9.

198. Maki M, Kallonen K, Lahdeaho ML, Visakorpi JK. Changing pattern of childhood coeliac disease in Finland. *Acta Paediatrica Scandinavica* 1988;77(3):408-12.
199. Collin P, Reunala T, Rasmussen M, Kyrönpalo S, Pehkonen E, Laippala P, et al. High incidence and prevalence of adult coeliac disease. Augmented diagnostic approach. *Scand J Gastroenterol* 1997;32(11):1129-33.
200. Jansen Th TLA, Mulder CJJ, Karssen PHZ, Wagenaar CGJ. Epidemiological survey of the Dutch Coeliac Disease Society: An update 1992. *Eur J Gastroenterol Hepatol* 1993;5(2):73-8.
201. Hawkes ND, Swift GL, Smith PM, Jenkins HR. Incidence and presentation of coeliac disease in South Glamorgan. *Eur J Gastroenterol Hepatol* 2000;12(3):345-9.
202. Corrao G, Usai P, Galatola G, Ansaldi N, Meini A, Pelli MA, et al. Estimating the incidence of coeliac disease with capture-recapture methods within four geographic areas in Italy. *J Epidemiol Community Health* 1996;50(3):299-305.
203. Magazzu G, Bottaro G, Cataldo F, Iacono G, Di Donato F, Patane R, et al. Increasing incidence of childhood celiac disease in Sicily: results of a multicenter study. *Acta Paediatr* 1994;83(10):1065-9.
204. Lopez-Rodriguez MJ, Canal Macias ML, Lavado Garcia JM, Sanchez BM, Robledo AP, Pedrera Zamorano JD. Epidemiological changes in diagnosed coeliac disease in a population of Spanish children. *Acta Paediatr* 2003;92(2):165-9.
205. Talley NJ, Valdovinos M, Petterson TM, Carpenter HA, Melton LJ. Epidemiology of celiac sprue: a community-based study. *Am J Gastroenterol* 1994;89(6):843-6.
206. Fasano A, Berti I, Gerarduzzi T, Not T, Colletti RB, Drago S, et al. Prevalence of celiac disease in at-risk and not-at-risk groups in the United States: a large multicenter study. *Arch Intern Med* 2003;163(3):286-92.
207. Green PH, Shane E, Rotterdam H, Forde KA, Grossbard L. Significance of unsuspected celiac disease detected at endoscopy. *Gastroenterol Int* 2000;51(1):60-5.
208. Not T, Horvath K, Hill ID, Partanen J, Hamed A, Magazzu G, et al. Celiac disease risk in the USA: high prevalence of antiendomysium antibodies in healthy blood donors. *Scand J Gastroenterol* 1998;33(5):494-8.
209. Carlsson AK, Axelsson IE, Borulf SK, Bredberg AC, Ivarsson SA. Serological screening for celiac disease in healthy 2.5-year-old children in Sweden. *Pediatrics* 2001;107(1):42-5.
210. Collin P, Rasmussen M, Kyrönpalo S, Laippala P, Kaukinen K. The hunt for coeliac disease in primary care. *Q J Med* 2002;95(2):75-7.
211. Grodzinsky E. Screening for coeliac disease in apparently healthy blood donors. *Acta Paediatr* 1996;412(Suppl):36-8.
212. Hovdenak N, Hovlid E, Aksnes L, Fluge G, Erichsen MM, Eide J. High prevalence of asymptomatic coeliac disease in Norway: a study of blood donors. *Eur J Gastroenterol Hepatol* 1999;11(2):185-7.
213. Ivarsson A, Persson LA, Juto P, Peltonen M, Suhr O, Hernell O. High prevalence of undiagnosed coeliac disease in adults: a Swedish population-based study. *J Intern Med* 1999;245(1):63-8.
214. Kolho KL, Farkkila MA, Savilahti E. Undiagnosed coeliac disease is common in Finnish adults. *Scand J Gastroenterol* 1998;33(12):1280-3.
215. Maki M, Mustalahti K, Kokkonen J, Kulmala P, Haapalahti M, Karttunen T, et al. Prevalence of Celiac disease among children in Finland. *New Engl J Med* 2003;348(25):2517-24.
216. Sjöberg K, Alm R, Ivarsson SA, Lindström C, Eriksson S. Prevalence and clinical significance of gliadin antibodies in healthy children and adults. *Scand J Gastroenterol* 1994;29(3):248-54.
217. Sjöberg K, Eriksson S. Regional differences in coeliac disease prevalence in Scandinavia? *Scand J Gastroenterol* 1999;34(1):41-5.
218. Weile I, Grodzinsky E, Skogh T, Jordal R, Cavell B, Krasilnikoff PA. High prevalence rates of adult silent coeliac disease, as seen in Sweden, must be expected in Denmark. *APMIS* 2001;109(11):745-50.
219. Borch K, Grodzinsky E, Petersson F, Jonsson K-A, Mardh S, Valdimarsson T. Prevalence of coeliac disease and relations to *Helicobacter pylori* infection and duodenitis in a Swedish adult population sample: A histomorphological and serological survey. *Inflammopharmacology* 2000;8(4):341-50.
220. Catassi C, Fabiani E, Ratsch IM, Coppa G, V, Giorgi PL, Pierdomenico R, et al. The coeliac

- iceberg in Italy. A multicentre antigliadin antibodies screening for coeliac disease in school-age subjects. *Acta Paediatr* 1996;412(Suppl):29-35.
221. Catassi C, Fanciulli G, D'Appello AR, El Asmar R, Rondina C, Fabiani E, et al. Antiendomysium versus antigliadin antibodies in screening the general population for coeliac disease. *Scand J Gastroenterol* 2000;35(7):732-6.
  222. Corazza GR, Andreani ML, Biagi F, Corrao G, Pretolani S, Giulianelli G, et al. The smaller size of the 'coeliac iceberg' in adults. *Scand J Gastroenterol* 1997;32(9):917-9.
  223. Mazzetti dP, Giorgetti GM, Gregori M, De Simone M, Leonardi C, Barletta PA, et al. Subclinical coeliac disease. *Ital J Gastroenterol* 1992;24(6):352-4.
  224. Pittschieler K, Ladinser B. Coeliac disease: screened by a new strategy. *Acta Paediatr* 1996;412(Suppl):42-5.
  225. Trevisiol C, Not T, Berti I, Buratti E, Citta A, Neri E, et al. Screening for coeliac disease in healthy blood donors at two immuno-transfusion centres in north-east Italy. *Ital J Gastroenterol Hepatol* 1999;31(7):584-6.
  226. Johnston SD, Watson RG, McMillan SA, Sloan J, Love AH. Coeliac disease detected by screening is not silent--simply unrecognized. *Q J Med* 1998;91(12):853-60.
  227. Sanders DS, Patel D, Stephenson TJ, Ward AM, McCloskey EV, Hadjivassiliou M, et al. A primary care cross-sectional study of undiagnosed adult coeliac disease. *Eur J Gastroenterol Hepatol* 2003;15(4):407-13.
  228. West J, Logan RFA, Hill PG, Lloyd A, Lewis S, Hubbard R, et al. Seroprevalence, correlates, and characteristics of undetected coeliac disease in England. *Gut* 2003;52(7):960-5.
  229. Dickey W, McMillan SA, Bharucha C, Porter KG. Antigliadin antibodies in blood donors in Northern Ireland. *Eur J Gastroenterol Hepatol* 1992;4(9):739-41.
  230. Riestra S, Fernandez E, Rodrigo L, Garcia S, Ocio G. Prevalence of Coeliac disease in the general population of northern Spain. Strategies of serologic screening. *Scand J Gastroenterol* 2000;35(4):398-402.
  231. Rostami K, Mulder CJ, Werre JM, van Beukelen FR, Kerchhaert J, Crusius JB, et al. High prevalence of celiac disease in apparently healthy blood donors suggests a high prevalence of undiagnosed celiac disease in the Dutch population. *Scand J Gastroenterol* 1999;34(3):276-9.
  232. Csizmadia CGDS, Mearin ML, Von Blomberg BME, Brand R, Verloove-Vanhorick SP. An iceberg of childhood coeliac disease in the Netherlands. *Lancet* 1999;353(9155):813-4.
  233. Rutz R, Ritzler E, Fierz W, Herzog D. Prevalence of asymptomatic celiac disease in adolescents of eastern Switzerland. *Swiss Med Wkly* 2002;132(3-4):43-7.
  234. Jaeger C, Hatzigelaki E, Petzoldt R, Bretzel RG. Comparative analysis of organ-specific autoantibodies and celiac disease--associated antibodies in type 1 diabetic patients, their first-degree relatives, and healthy control subjects. *Diabetes Care* 2001;24(1):27-32.
  235. Book L, Zone JJ, Neuhausen SL. Prevalence of celiac disease among relatives of sib pairs with celiac disease in U.S. families. *Am J Gastroenterol* 2003;98(2):377-81.
  236. Corazza G, Valentini RA, Frisoni M, Volta U, Corrao G, Bianchi FB, et al. Gliadin immune reactivity is associated with overt and latent enteropathy in relatives of celiac patients. *Gastroenterology* 1992;103(5):1517-22.
  237. Farre C, Humbert P, Vilar P, Varea V, Aldeguer X, Carnicer J, et al. Serological markers and HLA-DQ2 haplotype among first-degree relatives of celiac patients. *Catalonian Coeliac Disease Study Group. Dig Dis Sci* 1999;44(11):2344-9.
  238. Hill I, Fasano A, Schwartz R, Counts D, Glock M, Horvath K. The prevalence of celiac disease in at-risk groups of children in the United States. *J Pediatr* 2000;136(1):86-90.
  239. Korponay-Szabo I, Kovacs J, Lorincz M, Torok E, Goracz G. Families with multiple cases of gluten-sensitive enteropathy. *Z Gastroenterol* 1998;36(7):553-8.
  240. Kotze LM, Utiyama SR, Nisihara RM, Zeni MP, de Sena MG, Amarante HM. Antiendomysium antibodies in Brazilian patients with celiac disease and their first-degree relatives. *Arq Gastroenterol* 2001;38(2):94-103.
  241. Mustalahti K, Sulkanen S, Holopainen P, Laurila K, Collin P, Partanen J, et al. Coeliac disease among healthy members of multiple case coeliac disease families. *Scand J Gastroenterol* 2002;37(2):161-5.

242. Robinson DC, Watson AJ, Wyatt EH, Marks JM, Roberts DF. Incidence of small-intestinal mucosal abnormalities and of clinical coeliac disease in the relatives of children with coeliac disease. *Gut* 1971;12(10):789-93.
243. Rolles CJ, Myint TO, Sin WK, Anderson M. Proceedings: Family study of coeliac disease. *Gut* 1974;15(10):827.
244. Rostami K, Mulder CJ, van Overbeek FM, Kerckhaert J, Meijer JW, von Blomberg MB, et al. Should relatives of coeliacs with mild clinical complaints undergo a small-bowel biopsy despite negative serology? *Eur J Gastroenterol Hepatol* 2000;12(1):51-5.
245. Stokes PL, Ferguson R, Holmes GK, Cooke WT. Familial aspects of coeliac disease. *Quarterly Journal of Medicine* 1976;45(180):567-82.
246. Vitoria JC, Arrieta A, Astigarraga I, Garcia-Masdevall D, Rodriguez-Soriano J. Use of serological markers as a screening test in family members of patients with celiac disease. *J Pediatr Gastroenterol Nutr* 1994;19(3):304-9.
247. Hogberg L, Falth-Magnusson K, Grodzinsky E, Stenhammar L. Familial prevalence of coeliac disease: A twenty-year follow-up study. *Scand J Gastroenterol* 2003;38(1):61-5.
248. Pittschieler K, Gentili L, Niederhofer H. Onset of coeliac disease: A prospective longitudinal study. *Acta Paediatr Int J Paediatr* 2003;92(10):1149-52.
249. Tursi A, Brandimarte G, Giorgetti GM, Inchingolo CD. Effectiveness of the sorbitol HSUB2 breath test in detecting histological damage among relatives of coeliacs. *Scand J Gastroenterol* 2003;38(7):727-31.
250. Acerini CL, Ahmed ML, Ross KM, Sullivan PB, Bird G, Dunger DB. Coeliac disease in children and adolescents with IDDM: clinical characteristics and response to gluten-free diet. *Diabet Med* 1998;15(1):38-44.
251. Aktay AN, Lee PC, Kumar V, Parton E, Wyatt DT, Werlin SL. The prevalence and clinical characteristics of celiac disease in juvenile diabetes in Wisconsin. *J Pediatr Gastroenterol Nutr* 2001;33(4):462-5.
252. Arato A, Korner A, Veres G, Dezsofi A, Ujpal I, Madacsy L. Frequency of coeliac disease in Hungarian children with type 1 diabetes mellitus. *Eur J Pediatr* 2002;162(1):1-5.
253. Bao F, Yu L, Babu S, Wang T, Hoffenberg EJ, Rewers M, et al. One third of HLA DQ2 homozygous patients with type 1 diabetes express celiac disease-associated transglutaminase autoantibodies. *J Autoimmun* 1999;13(1):143-8.
254. Barera G, Bianchi C, Calisti L, Cerutti F, Dammacco F, Frezza E, et al. Screening of diabetic children for coeliac disease with antigliadin antibodies and HLA typing. *Arch Dis Child* 1991;66(4):491-4.
255. Barera G, Bonfanti R, Viscardi M, Bazzigaluppi E, Calori G, Meschi F, et al. Occurrence of celiac disease after onset of type 1 diabetes: a 6-year prospective longitudinal study. *Pediatrics* 2002;109(5):833-8.
256. Calero P, Ribes-Koninckx C, Albiach V, Carles C, Ferrer J. IgA antigliadin antibodies as a screening method for nonovert celiac disease in children with insulin-dependent diabetes mellitus. *J Pediatr Gastroenterol Nutr* 1996;23(1):29-33.
257. Cronin CC, Feighery A, Ferriss JB, Liddy C, Shanahan F, Feighery C. High prevalence of celiac disease among patients with insulin-dependent (type I) diabetes mellitus. *Am J Gastroenterol* 1997;92(12):2210-2.
258. De Block CE, De L, I, Vertommen JJ, Rooman RP, Du CM, V, Van Campenhout CM, et al. Beta-cell, thyroid, gastric, adrenal and coeliac autoimmunity and HLA-DQ types in type 1 diabetes. *Clin Exp Immunol* 2001;126(2):236-41.
259. De V, I, Ghirlanda G, Gasbarrini G. Prevalence of coeliac disease in type I diabetes: a multicentre study. *Acta Paediatr* 1996;412(Suppl):56-7.
260. Fraser-Reynolds KA, Butzner JD, Stephure DK, Trussell RA, Scott RB. Use of immunoglobulin A-antiendomysial antibody to screen for celiac disease in North American children with type 1 diabetes. *Diabetes Care* 1998;21(11):1985-9.
261. Gillett PM, Gillett HR, Israel DM, Metzger DL, Stewart L, Chanoine JP, et al. High prevalence of celiac disease in patients with type 1 diabetes detected by antibodies to endomysium and tissue transglutaminase. *Can J Gastroenterol* 2001;15(5):297-301.
262. Hansen D, Bennedbaek FN, Hansen LK, Hoier-Madsen M, Hegedu LS, Jacobsen BB, et al. High prevalence of coeliac disease in Danish children with type I diabetes mellitus. *Acta Paediatr* 2001;90(11):1238-43.
263. Kaukinen K, Collin P, Mykkanen AH, Partanen J, Maki M, Salmi J. Celiac disease and

- autoimmune endocrinologic disorders. *Dig Dis Sci* 1999;44(7):1428-33.
264. Kordonouri O, Dieterich W, Schuppan D, Webert G, Muller C, Sarioglu N, et al. Autoantibodies to tissue transglutaminase are sensitive serological parameters for detecting silent coeliac disease in patients with Type 1 diabetes mellitus. *Diabet Med* 2000;17(6):441-4.
  265. Lampasona V, Bonfanti R, Bazzigalupi E, Venerando A, Chiumello G, Bosi E, et al. Antibodies to tissue transglutaminase C in type I diabetes. *Diabetologia* 1999;42(10):1195-8.
  266. Li Voon Chong JSW, Leong KS, Wallymahmed M, Sturgess R, MacFarlane IA. Is coeliac disease more prevalent in young adults with coexisting Type 1 diabetes mellitus and autoimmune thyroid disease compared with those with Type 1 diabetes mellitus alone? *Diabet Med* 2002;19(4):334-7.
  267. Lorini R, Scotta MS, Cortona L, Avanzini MA, Vitali L, De Giacomo C, et al. Celiac disease and type I (insulin-dependent) diabetes mellitus in childhood: follow-up study. *J Diabetes Complications* 1996;10(3):154-9.
  268. Not T, Tommasini A, Tonini G, Buratti E, Pocecco M, Tortul C, et al. Undiagnosed coeliac disease and risk of autoimmune disorders in subjects with Type I diabetes mellitus. *Diabetologia* 2001;44(2):151-5.
  269. Page SR, Lloyd CA, Hill PG, Peacock I, Holmes GK. The prevalence of coeliac disease in adult diabetes mellitus. *Q J Med* 1994;87(10):631-7.
  270. Rensch MJ, Merenich JA, Lieberman M, Long BD, Davis DR, McNally PR. Gluten-sensitive enteropathy in patients with insulin-dependent diabetes mellitus. *Ann Intern Med* 1996;124(6):564-7.
  271. Roldan MB, Barrio R, Roy G, Parra C, Alonso M, Yturriaga R, et al. Diagnostic value of serological markers for celiac disease in diabetic children and adolescents. *J Pediatr Endocrinol Metab* 1998;11(6):751-6.
  272. Rossi TM, Albini CH, Kumar V. Incidence of celiac disease identified by the presence of serum endomysial antibodies in children with chronic diarrhea, short stature, or insulin-dependent diabetes mellitus. *J Pediatr* 1993;123(2):262-4.
  273. Sategna-Guidetti C, Grosso S, Pulitano R, Benaduce E, Dani F, Carta Q. Celiac disease and insulin-dependent diabetes mellitus. Screening in an adult population. *Dig Dis Sci* 1994;39(8):1633-7.
  274. Saukkonen T, Savilahti E, Reijonen H, Ilonen J, Tuomilehto-Wolf E, Akerblom HK. Coeliac disease: frequent occurrence after clinical onset of insulin-dependent diabetes mellitus. Childhood Diabetes in Finland Study Group. *Diabet Med* 1996;13(5):464-70.
  275. Schober E, Bittmann B, Granditsch G, Huber WD, Huppe A, Jager A, et al. Screening by anti-endomysium antibody for celiac disease in diabetic children and adolescents in Austria. *J Pediatr Gastroenterol Nutr* 2000;30(4):391-6.
  276. Sigurs N, Johansson C, Elfstrand PO, Viander M, Lanner A. Prevalence of coeliac disease in diabetic children and adolescents in Sweden. *Acta Paediatr* 1993;82(9):748-51.
  277. Sjoberg K, Eriksson KF, Bredberg A, Wassmuth R, Eriksson S. Screening for coeliac disease in adult insulin-dependent diabetes mellitus. *J Intern Med* 1998;243(2):133-40.
  278. Spiekerkoetter U, Seissler J, Wendel U. General screening for celiac disease is advisable in children with type 1 diabetes. *Horm Metab Res* 2002;34(4):192-5.
  279. Talal AH, Murray JA, Goeken JA, Sivitz W, I. Celiac disease in an adult population with insulin-dependent diabetes mellitus: use of endomysial antibody testing. *Am J Gastroenterol* 1997;92(8):1280-4.
  280. Valerio G, Maiuri L, Troncone R, Buono P, Lombardi F, Palmieri R, et al. Severe clinical onset of diabetes and increased prevalence of other autoimmune diseases in children with coeliac disease diagnosed before diabetes mellitus. *Diabetologia* 2002;45(12):1719-22.
  281. Vitoria JC, Castano L, Rica I, Bilbao JR, Arrieta A, Garcia-Masdevall MD. Association of insulin-dependent diabetes mellitus and celiac disease: a study based on serologic markers. *J Pediatr Gastroenterol Nutr* 1998;27(1):47-52.
  282. Agardh D, Nilsson A, Tuomi T, Lindberg B, Carlsson AK, Lernmark A, et al. Prediction of silent celiac disease at diagnosis of childhood type 1 diabetes by tissue transglutaminase autoantibodies and HLA. *Pediatr Diabetes* 2001;2(2):58-65.
  283. Ackerman Z, Eliakim R, Stalnikowicz R, Rachmilewitz D. Role of small bowel biopsy in the endoscopic evaluation of adults with iron

- deficiency anemia. *Am J Gastroenterol* 1996;91(10):2099-102.
284. Annibale B, Capurso G, Chistolini A, D'Ambra G, DiGiulio E, Monarca B, et al. Gastrointestinal causes of refractory iron deficiency anemia in patients without gastrointestinal symptoms. *Am J Med* 2001;111(6):439-45.
  285. Corazza GR, Valentini RA, Andreani ML, D'Anchino M, Leva MT, Ginaldi L, et al. Subclinical coeliac disease is a frequent cause of iron-deficiency anaemia. *Scand J Gastroenterol* 1995;30(2):153-6.
  286. Dickey W, Kenny BD, McMillan SA, Porter KG, McConnell JB. Gastric as well as duodenal biopsies may be useful in the investigation of iron deficiency anaemia. *Scand J Gastroenterol* 1997;32(5):469-72.
  287. Howard MR, Turnbull AJ, Morley P, Hollier P, Webb R, Clarke A. A prospective study of the prevalence of undiagnosed coeliac disease in laboratory defined iron and folate deficiency. *J Clin Path* 2002;55(10):754-7.
  288. Kepczyk T, Kadakia SC. Prospective evaluation of gastrointestinal tract in patients with iron-deficiency anemia. *Dig Dis Sci* 1995;40(6):1283-9.
  289. McIntyre AS, Long RG. Prospective survey of investigations in outpatients referred with iron deficiency anaemia. *Gut* 1993;34(8):1102-7.
  290. Oxentenko AS, Grisolano SW, Murray JA, Burgart LJ, Dierkhising RA, Alexander JA. The insensitivity of endoscopic markers in celiac disease. *Am J Gastroenterol* 2002;97(4):933-8.
  291. Ransford Rupert AJ, Hayes M, Palmer M, Hall MJ. A controlled, prospective screening study of celiac disease presenting as iron deficiency anemia. *J Clin Gastroenterol* 2002;35(3):228-33.
  292. Unsworth DJ, Lock RJ, Harvey RF. Improving the diagnosis of coeliac disease in anaemic women. *Br J Haematol* 2000;111(3):898-901.
  293. Annibale B, Lahner E, Chistolini A, Gallucci C, Di Giulio E, Capurso G, et al. Endoscopic evaluation of the upper gastrointestinal tract is worthwhile in premenopausal women with iron-deficiency anaemia irrespective of menstrual flow. *Scand J Gastroenterol* 2003;38(3):239-45.
  294. Van Mook WNKA, Bourass-Bremer IHDN, Bos LP, Verhoeven HMJM, Engels LGJB. The outcome of esophagogastroduodenoscopy (EGD) in asymptomatic outpatients with iron deficiency anemia after a negative colonoscopy. *Eur J Intern Med* 2001;12(2):122-6.
  295. Gonzalez D, Sugai E, Gomez JC, Oliveri MB, Gomez AC, Vega E, et al. Is it necessary to screen for celiac disease in postmenopausal osteoporotic women? *Calcif Tissue Int* 2002;71(2):141-4.
  296. Lindh E, Ljunghall S, Larsson K, Lavo B. Screening for antibodies against gliadin in patients with osteoporosis. *J Intern Med* 1992;231(4):403-6.
  297. Mather KJ, Meddings JB, Beck PL, Scott RB, Hanley DA. Prevalence of IgA-antiendomysial antibody in asymptomatic low bone mineral density. *Am J Gastroenterol* 2001;96(1):120-5.
  298. Nuti R, Martini G, Valenti R, Giovani S, Salvadori S, Avanzati A. Prevalence of undiagnosed coeliac syndrome in osteoporotic women. *J Intern Med* 2001;250(4):361-6.
  299. Hin H, Bird G, Fisher P, Mahy N, Jewell D. Coeliac disease in primary care: case finding study. *BMJ* 1999;318(7177):164-7.
  300. Bardella MT, Molteni N, Cesana B, Baldassarri AR, Binanchi PA. IgA antigliadin antibodies, cellobiose/mannitol sugar test, and carotenemia in the diagnosis of and screening for celiac disease. *Am J Gastroenterol* 1991;86(3):309-11.
  301. Bardella MT, Trovato C, Cesana BM, Pagliari C, Gebbia C, Peracchi M. Serological markers for coeliac disease: is it time to change? *Dig Liver Dis* 2001;33(5):426-31.
  302. Bode S, Weile B, Krasilnikoff PA, Gudmand-Hoyer E. The diagnostic value of the gliadin antibody test in celiac disease in children: a prospective study. *J Pediatr Gastroenterol Nutr* 1993;17(3):260-4.
  303. Carroccio A, Vitale G, Di Prima L, Chifari N, Napoli S, La Russa C, et al. Comparison of anti-transglutaminase ELISAs and an anti-endomysial antibody assay in the diagnosis of celiac disease: a prospective study. *Clin Chem* 2002;48(9):1546-50.
  304. Chan AW, Butzner JD, McKenna R, Fritzlner MJ. Tissue transglutaminase enzyme-linked immunosorbent assay as a screening test for celiac disease in pediatric patients. *Pediatrics* 2001;107(1):E8.

305. Chartrand LJ, Agulnik J, Vanounou T, Russo PA, Baehler P, Seidman EG. Effectiveness of antigliadin antibodies as a screening test for celiac disease in children. *CMAJ* 1997;157(5):527-33.
306. Day AS, Cook HB, Whitehead M, Abbott GD. Anti-endomysial and anti-gliadin antibodies in screening for coeliac disease in children at greater risk of developing coeliac disease. *N Z Med J* 2000;113(1119):412-3.
307. Fitzpatrick KP, Sherman PM, Ipp M, Saunders N, Macarthur C. Screening for celiac disease in children with recurrent abdominal pain. *J Pediatr Gastroenterol Nutr* 2001;33(3):250-2.
308. Thomas AG, Phillips AD, Walker-Smith JA. The value of proximal small intestinal biopsy in the differential diagnosis of chronic diarrhoea. *Arch Dis Child* 1992;67(6):741-3.
309. Ventura A, Facchini S, Amantidu C, Andreotti MF, Andrighetto A, Baggiani A, et al. Searching for celiac disease in pediatric general practice. *Clin Pediatr* 2001;40(10):575-7.
310. Ascher H, Krantz I, Kristiansson B. Increasing incidence of coeliac disease in Sweden. *Arch Dis Child* 1991;66(5):608-11.
311. Cavell B, Stenhammar L, Ascher H, Danielsson L, Danaeus A, Lindberg T, et al. Increasing incidence of childhood coeliac disease in Sweden. Results of a national study. *Acta Paediatr* 1992;81(8):589-92.
312. Stenhammar L, Johansson CG. The incidence of coeliac disease in children in south-east Sweden. *Acta Paediatrica Scandinavica* 1981;70(3):379-81.
313. Weile B, Cavell B, Nivenius K, Krasilnikoff PA. Striking differences in the incidence of childhood celiac disease between Denmark and Sweden: a plausible explanation. *J Pediatr Gastroenterol Nutr* 1995;21(1):64-8.
314. Weile B, Krasilnikoff PA. Low incidence rates by birth of symptomatic coeliac disease in a Danish population of children. *Acta Paediatr* 1992;81(5):394-8.
315. Stevens FM, Egan-Mitchell B, Cryan E, McCarthy CF, McNicholl B. Decreasing incidence of coeliac disease. *Arch Dis Child* 1987;62(5):465-8.
316. Logan RF, Rifkind EA, Busuttill A, Gilmour HM, Ferguson A. Prevalence and "incidence" of celiac disease in Edinburgh and the Lothian region of Scotland. *Gastroenterology* 1986;90(2):334-42.
317. Hoffenberg EJ, Bao F, Eisenbarth GS, Uhlhorn C, Haas JE, Sokol RJ, et al. Transglutaminase antibodies in children with a genetic risk for celiac disease. *Journal of Pediatrics* 2000;137(3):356-60.
318. Corazza GR, Frisoni M, Treggiari EA, Valentini RA, Filippini C, Volta U, et al. Subclinical celiac sprue. Increasing occurrence and clues to its diagnosis. *J Clin Gastroenterol* 1993;16(1):16-21.
319. Sanders DS, Hurlstone DP, Stokes RO, Rashid F, Milford-Ward A, Hadjivassiliou M, et al. Changing face of adult coeliac disease: experience of a single university hospital in South Yorkshire. *Postgraduate Medical Journal* 2002;78(915):31-3.
320. Sategna-Guidetti C, Grosso S. Changing pattern in adult coeliac disease: A 24-year survey. *Eur J Gastroenterol Hepatol* 1994;6(1):15-9.
321. Holmes GK. Non-malignant complications of coeliac disease. *Acta Paediatrica Supplement* 1996;412:68-75.
322. Suharjono. Intestinal biopsy and coeliac disease. *Paediatrica Indonesiana* 1971;11(3):116-34.
323. Mannell A, van Heerden JA, Weiland LH, Ilstrup DM. Factors influencing survival after resection for ductal adenocarcinoma of the pancreas. *Annals of Surgery* 1986;203(4):403-7.
324. Atherton DJ. Diagnosis and management of skin disorders caused by food allergy. *Annals of Allergy* 1984;53(6 Pt 2):623-8.
325. Di Stefano M, Jorizzo RA, Veneto G, Cecchetti L, Gasbarrini G, Corazza GR. Bone mass and metabolism in dermatitis herpetiformis. *Dig Dis Sci* 1999;44(10):2139-43.
326. Ots M, Uibo O, Metskula K, Uibo R, Salupere V. IgA-antigliadin antibodies in patients with IgA nephropathy: the secondary phenomenon? *American Journal of Nephrology* 1999;19(4):453-8.
327. Collin P, Reunala T, Pukkala E, Laippala P, Keyrilainen O, Pasternack A. Coeliac disease--associated disorders and survival. *Gut* 1994;35(9):1215-8.
328. Cooper BT, Holmes GK, Cooke WT. Lymphoma risk in coeliac disease of later life. *Digestion* 1982;23(2):89-92.

329. Harris OD, Cooke WT, Thompson H, Waterhouse JA. Malignancy in adult coeliac disease and idiopathic steatorrhea. *Am J Med* 1967;42(6):899-912.
330. Holmes GK, Stokes PL, Sorahan TM, Prior P, Waterhouse JA, Cooke WT. Coeliac disease, gluten-free diet, and malignancy. *Gut* 1976;17(8):612-9.
331. Peters U, Askling J, Gridley G, Ekblom A, Linet M. Causes of death in patients with celiac disease in a population-based Swedish cohort. *Archives of Internal Medicine* 2003;163(13):1566-72.
332. Cooper BT, Holmes GKT, Ferguson R. Celiac disease and malignancy. *Medicine* 1980;59(4):249-61.
333. Holmes GK, Prior P, Lane MR, Pope D, Allan RN. Malignancy in coeliac disease--effect of a gluten free diet. *Gut* 1989;30(3):333-8.
334. Sorensen HT, Fonager K. Risk estimation of disorders associated with coeliac disease. A 16-year Danish nationwide follow-up study based on hospital discharge data. Implications for screening. *Int J Risk Saf Med* 1996;8(2):137-40.
335. Cottone M, Termini A, Oliva L, Magliocco A, Marrone C, Orlando A, et al. Mortality and causes of death in celiac disease in a Mediterranean area. *Dig Dis Sci* 1999;44(12):2538-41.
336. Logan RF, Rifkind EA, Turner ID, Ferguson A. Mortality in celiac disease. *Gastroenterology* 1989;97(2):265-71.
337. Askling J, Linet M, Gridley G, Halstensen TS, Ekstrom K, Ekblom A. Cancer incidence in a population-based cohort of individuals hospitalized with celiac disease or dermatitis herpetiformis. *Gastroenterology* 2002;123(5):1428-35.
338. Collin P, Pukkala E, Reunala T. Malignancy and survival in dermatitis herpetiformis: a comparison with coeliac disease. *Gut* 1996;38(4):528-30.
339. Corrao G, Corazza GR, Bagnardi V, Brusco G, Ciacci C, Cottone M, et al. Mortality in patients with coeliac disease and their relatives: a cohort study. *Lancet* 2001;358(9279):356-61.
340. Green PHR, Fleischauer AT, Bhagat G, Goyal R, Jabri B, Neugut AI. Risk of malignancy in patients with celiac disease. *Am J Med* 2003;115(3):191-5.
341. Selby WS, Gallagher ND. Malignancy in a 19-year experience of adult celiac disease. *Dig Dis Sci* 1979;24(9):684-8.
342. Delco F, El Serag HB, Sonnenberg A. Celiac sprue among US military veterans: associated disorders and clinical manifestations. *Dig Dis Sci* 1999;44(5):966-72.
343. Nielsen OH, Jacobsen O, Pedersen ER, Rasmussen SN, Petri M, Laulund S, et al. Non-tropical sprue. Malignant diseases and mortality rate. *Scand J Gastroenterol* 1985;20(1):13-8.
344. Shainoff JR, Valenzuela R, Urbanic DA, DiBello PM, Lucas F, V, Graor R. Fibrinogen A alpha and gamma-chain dimers as potential differential indicators of atherosclerotic and thrombotic vascular disease. *Blood Coagulation & Fibrinolysis - an International Journal in Haemostasis and Thrombosis* 1990;1(4-5):499-503.
345. Ribes-Koninckx C, Alfonso P, Ortigosa L, Escobar H, Suarez L, Arranz E, et al. A beta-turn rich oats peptide as an antigen in an ELISA method for the screening of coeliac disease in a paediatric population. *European Journal of Clinical Investigation* 2000;30(8):702-8.
346. Kempainen TA, Kosma VM, Janatuinen EK, Julkunen RJ, Pikkarainen PH, Uusitupa M, I. Nutritional status of newly diagnosed celiac disease patients before and after the institution of a celiac disease diet--association with the grade of mucosal villous atrophy. *Am J Clin Nutr* 1998;67(3):482-7.
347. Amin R, Murphy N, Edge J, Ahmed ML, Acerini CL, Dunger DB. A longitudinal study of the effects of a gluten-free diet on glycemic control and weight gain in subjects with type 1 diabetes and celiac disease. *Diabetes Care* 2002;25(7):1117-22.
348. Bardella MT, Fredella C, Prampolini L, Molteni N, Giunta AM, Bianchi PA. Body composition and dietary intakes in adult celiac disease patients consuming a strict gluten-free diet. *Am J Clin Nutr* 2000;72(4):937-9.
349. Barera G, Mora S, Brambilla P, Ricotti A, Menni L, Beccio S, et al. Body composition in children with celiac disease and the effects of a gluten-free diet: a prospective case-control study. *Am J Clin Nutr* 2000;72(1):71-5.
350. Boersma B, Houwen RHJ, Blum WF, van Doorn J, Wit JM. Catch-up growth and endocrine changes in childhood celiac disease. *Endocrine*

- changes during catch-up growth. *Horm Res* 2002;58(Suppl 1):57-65.
351. Ciacci C, Cirillo M, Auremma G, Di Dato G, Sabbatini F, Mazzacca G. Celiac disease and pregnancy outcome. *Am J Gastroenterol* 1996;91(4):718-22.
  352. Rea F, Polito C, Marotta A, Di Toro A, Iovene A, Collini R, et al. Restoration of body composition in celiac children after one year of gluten-free diet. *J Pediatr Gastroenterol Nutr* 1996;23(4):408-12.
  353. Sategna-Guidetti C, Grosso SB, Grosso S, Mengozzi G, Aimo G, Zaccaria T, et al. The effects of 1-year gluten withdrawal on bone mass, bone metabolism and nutritional status in newly-diagnosed adult coeliac disease patients. *Aliment Pharmacol Ther* 2000;14(1):35-43.
  354. Sategna-Guidetti C, Volta U, Ciacci C, Usai P, Carlino A, De Franceschi L, et al. Prevalence of thyroid disorders in untreated adult celiac disease patients and effect of gluten withdrawal: an Italian multicenter study. *Am J Gastroenterol* 2001;96(3):751-7.
  355. Valdimarsson T, Lofman O, Toss G, Strom M. Reversal of osteopenia with diet in adult coeliac disease. *Gut* 1996;38(3):322-7.
  356. Valdimarsson T, Toss G, Lofman O, Strom M. Three years' follow-up of bone density in adult coeliac disease: significance of secondary hyperparathyroidism. *Scand J Gastroenterol* 2000;35(3):274-80.
  357. Westman E, Ambler GR, Royle M, Peat J, Chan A. Children with coeliac disease and insulin dependent diabetes mellitus--growth, diabetes control and dietary intake. *J Pediatr Endocrinol Metab* 1999;12(3):433-42.
  358. Annibale B, Severi C, Chistolini A, Antonelli G, Lahner E, Marcheggiano A, et al. Efficacy of gluten-free diet alone on recovery from iron deficiency anemia in adult celiac patients. *Am J Gastroenterol* 2001;96(1):132-7.
  359. Arato A, Korner A, Veres G, Dezsofi A, Ujpal I, Madacsy L. Frequency of coeliac disease in Hungarian children with type 1 diabetes mellitus. *Eur J Pediatr* 2002;162(1):1-5.
  360. Atkinson K, Tokmakajian S, Watson W, Gregor J. Evaluation of the endomysial antibody for celiac disease: operating properties and associated cost implications in clinical practice. *Can J Gastroenterol* 1997;11(8):673-7.
  361. Bardella MT, Molteni N, Quatrini M, Velio P, Ranzi T, Bianchi PA. Clinical, biochemical and histological abnormalities in adult celiac patients on gluten-free diet. *Gastroenterol Clin Biol* 1985;9(11):787-9.
  362. Corrao G, Corazza GR, Bagnardi V, Brusco G, Ciacci C, Cottone M, et al. Mortality in patients with coeliac disease and their relatives: a cohort study. *Lancet* 2001;358(9279):356-61.
  363. Fabiani E, Catassi C, Villari A, Gismondi P, Pierdomenico R, Ratsch IM, et al. Dietary compliance in screening-detected coeliac disease adolescents. *Acta Paediatr* 1996;412(Suppl):65-7.
  364. Fabiani E, Taccari LM, Ratsch IM, Di Giuseppe S, Coppa G, V, Catassi C. Compliance with gluten-free diet in adolescents with screening-detected celiac disease: a 5-year follow-up study. *J Pediatr* 2000;136(6):841-3.
  365. Greco L, Mayer M, Ciccarelli G, Troncone R, Auricchio S. Compliance to a gluten-free diet in adolescents, or "what do 300 coeliac adolescents eat every day?". *Ital J Gastroenterol Hepatol* 1997;29(4):305-10.
  366. Harewood GC, Murray JA. Diagnostic approach to a patient with suspected celiac disease: a cost analysis. *Dig Dis Sci* 2001;46(11):2510-4.
  367. Holmes GK, Stokes PL, Sorahan TM, Prior P, Waterhouse JA, Cooke WT. Coeliac disease, gluten-free diet, and malignancy. *Gut* 1976;17(8):612-9.
  368. Johnston SD, Watson RG, McMillan SA, Sloan J, Love AH. Coeliac disease detected by screening is not silent--simply unrecognized. *Qjm* 1998;91(12):853-60.
  369. Poddar U, Thapa BR, Nain CK, rasad A, ingh K. Celiac disease in India: are they true cases of celiac disease? *J Pediatr Gastroenterol Nutr* 2002;35(4):508-12.
  370. Saukkonen T, Vaisanen S, Akerblom HK, Savilahti E. Coeliac disease in children and adolescents with type 1 diabetes: a study of growth, glycaemic control, and experiences of families. *Acta Paediatr* 2002;91(3):297-302.
  371. Smecuol E, Gonzalez D, Mautalen C, Siccardi A, Cataldi M, Niveloni S, et al. Longitudinal study on the effect of treatment on body composition and anthropometry of celiac disease patients. *Am J Gastroenterol* 1997;92(4):639-43.

372. Bowron A, Moorghen M, Morgan JE, Osborne JR, Stansbie D, Stone JE. Cost-effective strategy for the serological investigation of coeliac disease. *Ann Clin Biochem* 2000;37(4):467-70.
373. Thomason K, West J, Logan RFA, Coupland C, Holmes GKT. Fracture experience of patients with coeliac disease: a population based survey. *Gut* 2003;52(4):518-22.
374. Addolorato G, Capristo E, Ghittoni G, Valeri C, Masciana R, Ancona C, et al. Anxiety but not depression decreases in coeliac patients after one-year gluten-free diet: a longitudinal study. *Scand J Gastroenterol* 2001;36(5):502-6.
375. Bai JC, Gonzalez D, Mautalen C, Mazure R, Pedreira S, Vazquez H, et al. Long-term effect of gluten restriction on bone mineral density of patients with coeliac disease. *Aliment Pharmacol Ther* 1997;11(1):157-64.
376. Kempainen T, Kroger H, Janatuinen E, Arnala I, Lamberg-Allardt C, Karkkainen M, et al. Bone recovery after a gluten-free diet: a 5-year follow-up study. *Bone* 1999;25(3):355-60.
377. Mora S, Barera G, Beccio S, Menni L, Proverbio MC, Bianchi C, et al. A prospective, longitudinal study of the long-term effect of treatment on bone density in children with celiac disease. *J Pediatr* 2001;139(4):516-21.
378. Mustalahti K, Collin P, Sievanen H, Salmi J, Maki M. Osteopenia in patients with clinically silent coeliac disease warrants screening. *Lancet* 1999;354(9180):744-5.
379. Zaccari G, Mazzetti dP, Paone FM, Guidiceandrea P. A proposal for coeliac disease screening of all infants at the age of fifteen months. *Gastroenterol Int* 1996;9(1):11-5.
380. Bowron A, Moorghen M, Morgan JE, Osborne JR, Stansbie D, Stone JE. Cost-effective strategy for the serological investigation of coeliac disease. *Ann Clin Biochem* 2000;37(4):467-70.
381. Bernstein CN, Leslie WD, Leboff MS. AGA technical review on osteoporosis in gastrointestinal diseases. *Gastroenterology* 2003;124(3):795-841.
382. Gomez JC, Selvaggio G, Pizarro B, Viola MJ, La Motta G, Smecuol E, et al. Value of a screening algorithm for celiac disease using tissue transglutaminase antibodies as first level in a population-based study. *American Journal of Gastroenterology* 2002;97(11):2785-90.
383. Kempainen T, Kroger H, Janatuinen E, Arnala I, Kosma VM, Pikkarainen P, et al. Osteoporosis in adult patients with celiac disease. *Bone* 1999;24(3):249-55.
384. Mora S, Barera G, Beccio S, Proverbio MC, Weber G, Bianchi C, et al. Bone density and bone metabolism are normal after long-term gluten-free diet in young celiac patients. *Am J Gastroenterol* 1999;94(2):398-403.
385. West J, Logan Richard FA, Card TR, Smith C, Hubbard R. Fracture risk in people with celiac disease: a population-based cohort study. *Gastroenterology* 2003;125(2):429-36.
386. Ciacci C, Maurelli L, Klain M, Savino G, Salvatore M, Mazzacca G, et al. Effects of dietary treatment on bone mineral density in adults with celiac disease: factors predicting response. *Am J Gastroenterol* 1997;92(6):992-6.
387. McFarlane XA, Bhalla AK, Robertson DA. Effect of a gluten free diet on osteopenia in adults with newly diagnosed coeliac disease. *Gut* 1996;39(2):180-4.
388. Vestergaard P, Mosekilde L. Fracture risk in patients with celiac Disease, Crohn's disease, and ulcerative colitis: a nationwide follow-up study of 16,416 patients in Denmark. *Am J Epidemiol* 2002;156(1):1-10. Available: PM:12076883.
389. Vasquez H, Mazure R, Gonzalez D, Flores D, Pedreira S, Niveloni S, et al. Risk of fractures in celiac disease patients: a cross-sectional, case-control study. *Am J Gastroenterol* 2000;95(1):183-9. Available: PM:10638580.
390. Fickling WE, McFarlane XA, Bhalla AK, Robertson DA. The clinical impact of metabolic bone disease in coeliac disease. *Postgrad Med J* 2001;77(903):33-6. Available: PM:11123392.
391. Bianchi ML, Bardella MT. Bone and celiac disease. *Calcif Tissue Int* 2002;71(6):465-71. Available: PM:12232681.
392. Moreno ML, Vazquez H, Mazure R, Smecuol E, Niveloni S, Pedreira S, et al. Stratification of bone fracture risk in patients with celiac disease. *Clin Gastroenterol Hepatol* 2004;2(2):127-34. Available: PM:15017617.
393. Norgard B, Fonager K, Sorensen HT, Olsen J. Birth outcomes of women with celiac disease: A nationwide historical cohort study. *Am J Gastroenterol* 1999;94(9):2435-40.

394. Thomason K, West J, Logan RFA, Coupland C, Holmes GKT. Fracture experience of patients with coeliac disease: a population based survey. *Gut* 2003;52(4):518-22.
395. Cook HB, Burt MJ, Collett JA, Whitehead MR, Frampton CM, Chapman BA. Adult coeliac disease: prevalence and clinical significance. *J Gastroenterol Hepatol* 2000;15(9):1032-6.
396. Bartholomeusz RC, Labrooy JT, Davidson GP, Hetzel P, Johnson RB, Shearman DJ. Polymeric IgA antibody to gliadin in the serum of patients with coeliac disease. *J Gastroenterol Hepatol* 1990;5(6):675-81.
397. Fotoulaki M, Nousia-Arvanitakis S, Augoustidou-Savvopoulou P, Kanakoudi-Tsakalides F, Zaramboukas T, Vlachonikolis J. Clinical application of immunological markers as monitoring tests in celiac disease. *Dig Dis Sci* 1999;44(10):2133-8.
398. Kaukinen K, Sulkanen S, Maki M, Collin P. IgA-class transglutaminase antibodies in evaluating the efficacy of gluten-free diet in coeliac disease. *Eur J Gastroenterol Hepatol* 2002;14(3):311-5.
399. Bardella MT, Trovato C, Cesana BM, Pagliari C, Gebbia C, Peracchi M. Serological markers for coeliac disease: Is it time to change? *Dig Liver Dis* 2001;33(5):426-31.
400. Burgin-Wolff A, Gaze H, Hadziselimovic F, Huber H, Lentze MJ, Nussle D, et al. Antigliadin and antiendomysium antibody determination for coeliac disease. *Arch Dis Child* 1991;66(8):941-7.
401. Scalici C, Manzoni D, Licastro G, Varia F, Di Prima L, Vitali R. Reliability of EMA assay in the evaluation of gluten-free diet compliance in celiac patients during follow-up. *Acta Med Mediterr* 2003;19(1):67-9.
402. Vahedi K, Mascart-Lemone F, Mary JY, Laberrenne JE, Bouhnik Y, Morin MC, et al. Are Anti-Endomysial (AEM) and Anti-Transglutaminase (TTG) Antibodies Reliable Markers of Strict Diet Compliance in Adult Celiacs on a Gluten Free Diet (GFD)? *Gastroenterology* 2000;118(4 Suppl. 2 Part 1):AGA.
403. Martini S, Mengozzi G, Aimo G, Giorda L, Pagni R, Guidetti CS. Comparative evaluation of serologic tests for celiac disease diagnosis and follow-up. *Clin Chem* 2002;48(6 Pt 1):960-3.
404. Valletta EA, Trevisiol D, Mastella G. IgA anti-gliadin antibodies in the monitoring of gluten challenge in celiac disease. *J Pediatr Gastroenterol Nutr* 1990;10(2):169-73.
405. Wahab PJ, Meijer Jos WR, Mulder Chris JJ. Histologic follow-up of people with celiac disease on a gluten-free diet: slow and incomplete recovery. *American Journal of Clinical Pathology* 2002;118(3):459-63.
406. McNicholl B, Egan-Mitchell B, Stevens F, Keane R, Baker S, McCarthy CF, et al. Mucosal recovery in treated childhood celiac disease (gluten-sensitive enteropathy). *J Pediatr* 1976;89(3):418-24.
407. Valentini RA, Andreani ML, Corazza GR, Gasbarrini G. IgA endomysium antibody: a valuable tool in the screening of coeliac disease but not its follow-up. *Ital J Gastroenterol* 1994;26(6):279-82.
408. Fabiani E, Catassi C. The serum IgA class anti-tissue transglutaminase antibodies in the diagnosis and follow up of coeliac disease. Results of an international multi-centre study. International Working Group on Eu-tTG. *Eur J Gastroenterol Hepatol* 2001;13(6):659-65.
409. Dickey W, Hughes DF, McMillan SA. Disappearance of endomysial antibodies in treated celiac disease does not indicate histological recovery. *Am J Gastroenterol* 2000;95(3):712-4.
410. Fabiani E, Catassi C, Villari A, Gismondi P, Pierdomenico R, Ratsch IM, et al. Dietary compliance in screening-detected coeliac disease adolescents. *Acta Paediatr* 1996;412:65-7.
411. Lee SK, Lo W, Memeo L, Rotterdam H, Green Peter HR. Duodenal histology in patients with celiac disease after treatment with a gluten-free diet. *Gastrointest Endosc* 2003;57(2):187-91.
412. Pacht A, Sinai N, Hornstein L, Kumar V, Ish-Shalom N, Lerner A. The diagnostic reliability of anti-endomysial antibody in celiac disease: the north Israel experience. *Isr J Med Sci* 1995;31(4):218-20.
413. Sategna-Guidetti C, Grosso S, Bruno M, Grosso SB. Reliability of immunologic markers of celiac sprue in the assessment of mucosal recovery after gluten withdrawal. *J Clin Gastroenterol* 1996;23(2):101-4.
414. Selby WS, Painter D, Collins A, Faulkner-Hogg KB, Loblay RH. Persistent mucosal abnormalities in coeliac disease are not related to the ingestion of trace amounts of gluten. *Scand J Gastroenterol* 1999;34(9):909-14.

415. Troncone R, Mayer M, Spagnuolo F, Maiuri L, Greco L. Endomysial antibodies as unreliable markers for slight dietary transgressions in adolescents with celiac disease. *J Pediatr Gastroenterol Nutr* 1995;21(1):69-72.
416. Anson O, Weizman Z, Zeevi N. Celiac disease: parental knowledge and attitudes of dietary compliance. *Pediatrics* 1990;85(1):98-103.
417. Fabiani E, Taccari LM, Ratsch IM, Di Giuseppe S, Coppa G, V, Catassi C. Compliance with gluten-free diet in adolescents with screening-detected celiac disease: a 5-year follow-up study. *J Pediatr* 2000;136(6):841-3.
418. Jackson PT, Glasgow JF, Thom R. Parents' understanding of coeliac disease and diet. *Arch Dis Child* 1985;60(7):672-4.
419. Lamontagne P, West GE, Galibois I. Quebecers with celiac disease: analysis of dietary problems. *Canadian Journal of Dietetic Practice and Research - a Publication of Dietitians of Canada = Revue Canadienne De La Pratique Et De La Recherche En Dietetique - Une Publication Des Dietetistes Du C* 2001;62(4):175-81.
420. Ljungman G, Myrdal U. Compliance in teenagers with coeliac disease--a Swedish follow-up study. *Acta Paediatr* 1993;82(3):235-8.
421. Hogberg L, Grodzinsky E, Stenhammar L. Better dietary compliance in patients with coeliac disease diagnosed in early childhood. *Scand J Gastroenterol* 2003;38(7):751-4.
422. Patin NM, Johnson F, Kirks BA. Promoting dietary compliance in gluten-intolerant children. *J Nutr Educ* 1989;21(2):100D.
423. Lijmer JG, Mol BW, Heisterkamp S, Bossel GJ, Prins MH, van der Meulen JH, et al. Empirical evidence of design-related bias in studies of diagnostic tests. *JAMA* 1999;282(11):1061-6. Available: PM:10493205.
424. Tursi A, Brandimarte G, Giorgetti GM. Prevalence of antitissue transglutaminase antibodies in different degrees of intestinal damage in celiac disease. *Journal of Clinical Gastroenterology* 2003;36(3):219-21.
425. Tursi A, Brandimarte G, Giorgetti G, Gigliobianco A, Lombardi D, Gasbarrini G. Low prevalence of antigliadin and anti-endomysium antibodies in subclinical/silent celiac disease. *American Journal of Gastroenterology* 2001;96(5):1507-10.
426. Tursi A, Brandimarte G, Giorgetti GM. Sorbitol H2-breath test versus anti-endomysium antibodies for the diagnosis of subclinical/silent coeliac disease. *Scand J Gastroenterol* 2001;36(11):1170-2.
427. Demir H, Yuce A, Kocak N, Ozen H, Gurakan F. Celiac disease in Turkish children: presentation of 104 cases. *Pediatrics International - Official Journal of the Japan Pediatric Society* 2000;42(5):483-7.
428. Kotze Lorete Maria da Silva, Utiyama Shirley Ramos da Rosa, Nisihara RM, de C, V, Ioshii SO. IgA class anti-endomysial and anti-tissue transglutaminase antibodies in relation to duodenal mucosa changes in coeliac disease. *Pathology* 2003;35(1):56-60.
429. Sategna-Guidetti C, Bruno M, Pulitano R, Ferfogli G. Disease specificity of IgA class anti-endomysium antibodies (IgA-EmA) in adult coeliac disease. *Eur J Gastroenterol Hepatol* 1991;3(3):251-4.
430. Ciacci C, Cavallaro R, Della VN, D'argenio G. The Use of Serum Ttg-Ab Assay in Patients on Gluten-Free Diet as a Measure of Dietetic Compliance. *Gastroenterology* 2002;122(2):588.
431. Garcia VE, De Lourdes de Abreu Ferrari, Alves BE, Affonso Barbosa AJ, Brasileiro FG, Hartung TN, et al. Agreement between pathologists concerning assessment of intestinal biopsies from adult celiac disease patients. *Gastroenterol Int* 2002;15(1-2):1-8.
432. Weile B, Hansen BF, Hagerstrand I, Hansen JP, Krasilnikoff PA. Interobserver variation in diagnosing coeliac disease. A joint study by Danish and Swedish pathologists. *Apmis - Acta Pathologica, Microbiologica, Et Immunologica Scandinavica* 2000;108(5):380-4.
433. Landis JR, Koch GG. The measurement of observer agreement for categorical data. *Biometrics* 1977;33(1):159-74. Available: PM:843571.
434. Risdon RA, Keeling JW. Quantitation of the histological changes found in small intestinal biopsy specimens from children with suspected coeliac disease. *Gut* 1974;15(1):9-18.
435. Glasgow JF, Corkey CW, Molla A. Critical assessment of small bowel biopsy in children. *Archives of Disease in Childhood* 1979;54(8):604-8.
436. Jarvinen TT, Kaukinen K, Laurila K, Kyronpalo S, Rasmussen M, Maki M, et al. Intraepithelial

- lymphocytes in celiac disease. *American Journal of Gastroenterology* 2003;98(6):1332-7.
437. Corazza GR, Bonvicini F, Frazzoni M, Gatto M, Gasbarrini G. Observer variation in assessment of jejunal biopsy specimens. A comparison between subjective criteria and morphometric measurement. *Gastroenterology* 1982;83(6):1217-22. Available: PM:7129029.
438. Stenhammar L, Brandt A, Wagermark J. A family study of coeliac disease. *Acta Paediatr Scand* 1982;71(4):625-8. Available: PM:7136679.
439. Troncone R, Catassi C, Lambertini A, Zaniboni MG, Lazzari R, Bottaro G, et al. Latent coeliac disease in Italy. *Acta Paediatr Int J Paediatr* 1995;84(11):1252-7.
440. Maki M, Lahdeaho ML, Hallstrom O, Viander M, Visakorpi JK. Postpubertal gluten challenge in coeliac disease. *Arch Dis Child* 1989;64(11):1604-7. Available: PM:2604420.
441. Schmitz J, Arnaud-Battandier F JJ, Rey J. Long term follow-up of childhood coeliac disease (CD): Is there a "natural recovery"? *Pediatr Res* 1984;18:1052.
442. Ferguson A, McClure JP, Townley RR. Intraepithelial lymphocyte counts in small intestinal biopsies from children with diarrhoea. *Acta Paediatr Scand* 1976;65(5):541-6.
443. Kutlu T, Brousse N, Rambaud C, Le Deist F, Schmitz J, Cerf-Bensussan N. Numbers of T cell receptor (TCR) alpha beta+ but not of TcR gamma delta+ intraepithelial lymphocytes correlate with the grade of villous atrophy in coeliac patients on a long term normal diet. *Gut* 1993;34(2):208-14.
444. O'Farrelly C, Graeme-Cook F, Hourihane DO, Feighery C, Weir DG. Histological changes associated with wheat protein antibodies in the absence of villous atrophy. *Journal of Clinical Pathology* 1987;40(10):1228-30.
445. Saputo V, Losi S, Mancosu M, Della Morte MA, Moschettini GF. Intraepithelial lymphocytes in jejunal mucosa: diagnostic significance of changes in their number during chronic intestinal disease, with particular reference to coeliac disease. *Schweizerische Rundschau Fur Medizin Praxis = Revue Suisse De Medecine Praxis* 1981;70(30):1342-8.
446. Mino M, Lauwers GY. Role of lymphocytic immunophenotyping in the diagnosis of gluten-sensitive enteropathy with preserved villous architecture. *Am J Surg Pathol* 2003;27(9):1237-42.
447. Goldstein NS, Underhill J. Morphologic features suggestive of gluten sensitivity in architecturally normal duodenal biopsy specimens. *American Journal of Clinical Pathology* 2001;116(1):63-71.
448. Kuitunen P, Kosnai I, Savilahti E. Morphometric study of the jejunal mucosa in various childhood enteropathies with special reference to intraepithelial lymphocytes. *Journal of Pediatric Gastroenterology and Nutrition* 1982;1(4):525-31.
449. Kaukinen K, Collin P, Holm K, Karvonen AL, Pikkarainen P, Maki M. Small-bowel mucosal inflammation in reticulim or gliadin antibody-positive patients without villous atrophy. *Scandinavian Journal of Gastroenterology* 1998;33(9):944-9.
450. Wahab PJ, Crusius JB, Meijer JW, Mulder CJ. Gluten challenge in borderline gluten-sensitive enteropathy. *American Journal of Gastroenterology* 2001;96(5):1464-9.
451. Wahab PJ, Meijer Jos WR, Dumitra D, Goerres MS, Mulder Chris JJ. Coeliac disease: more than villous atrophy. *Romanian Journal of Gastroenterology* 2002;11(2):121-7.
452. Mahadeva S, Wyatt J, I, Howdle PD. Is a raised intraepithelial lymphocyte count with normal duodenal villous architecture clinically relevant? *Journal of Clinical Pathology* 2002;55(6):424-8.
453. Kaukinen K, Maki M, Partanen J, Sievanen H, Collin P. Celiac disease without villous atrophy: revision of criteria called for. *Dig Dis Sci* 2001;46(4):879-87.
454. Catassi C, Fabiani E, Corrao G, Barbato M, De Renzo A, Carella AM, et al. Risk of non-Hodgkin lymphoma in celiac disease. *JAMA* 2002;287(11):1413-9.
455. Johnston SD, Watson RGP. Small bowel lymphoma in unrecognized coeliac disease: A cause for concern? *Eur J Gastroenterol Hepatol* 2000;12(6):645-8.
456. Green PHR, Stavropoulos SN, Panagi SG, Goldstein SL, McMahon DJ, Absan H, et al. Characteristics of adult celiac disease in the USA: results of a national survey. *Am J Gastroenterol* 2001;96(1):126-31.
457. Wahab PJ, Meijer Jos WR, Mulder CJJ. Histologic follow-up of people with celiac

disease on a gluten-free diet: slow and incomplete recovery. *Am J Clin Pathol* 2002;118(3):459-63.

458. Goerres MS, Meijer JWR, Wahab PJ, Kerckhaert JAM, Groenen PJTA, Van Krieken JHJM, et al. Azathioprine and prednisone combination therapy in refractory coeliac disease. *Aliment Pharmacol Ther* 2003;18(5):487-94.
459. Cellier C, Delabesse E, Helmer C, Patey N, Matuchansky C, Jabri B, et al. Refractory sprue, coeliac disease, and enteropathy-associated T-cell lymphoma. French Coeliac Disease Study Group. *Lancet* 2000;356(9225):203-8.
460. Ciacci C, Cirillo M, Cavallaro R, Mazzacca G. Long-term follow-up of celiac adults on gluten-free diet: prevalence and correlates of intestinal damage. *Digestion* 2002;66(3):178-85.
461. Kluge F, Koch HK, Grosse-Wilde H, Lesch R, Gerok W. Follow-up of treated adult celiac disease: clinical and morphological studies. *Hepatogastroenterology* 1982;29(1):17-23.



## Abbreviations and Acronyms

95% CI-	Ninety-five percent confidence interval
AGA-	Antigliadin antibody
AR-	Attributable risk
BMD-	Bone mineral density
CD –	Celiac disease
DXA-	Dual energy X-ray absorptiometry
EGD-	Esophagogastroduodenoscopy
ELISA-	Enzyme-linked immunosorbent assay
EMA-	Endomysial antibody
ESPGAN-	European Society of Pediatric Gastroenterology and Nutrition
ETCL-	Enteropathy-associated T-cell lymphoma
GFD-	Gluten-free diet
GP-	Guinea pig
HLA-	Human leukocyte antigen
HR-	Human recombinant
HU-	Human umbilical cord
IDA-	Iron deficiency anemia
IDDM-	Type I diabetes (insulin dependent)
IEL-	Intraepithelial lymphocytes
IF-	Immunofluorescence
IgA-	Immunoglobulin A
IgG-	Immunoglobulin G
ME-	Monkey esophagus
NHL-	Non-Hodgkin's lymphoma
NPV-	Negative predictive value
OR-	Odds ratio
PPV-	Positive predictive value
Prev-	Prevalence
PVA-	Partial villous atrophy
RR-	Relative risk
SD-	Standard deviation
Sens-	Sensitivity
SIR-	Standardized incidence ratio
SMR-	Standardized mortality ratio
SPA-	Single photon absorptiometry
Spec-	Specificity
SVA-	Subtotal villous atrophy
tTG-	Tissue transglutaminase
VA-	Villous atrophy



# Appendix A.

**Table 1: Various causes of villous atrophy (VA; Farrell and Kelly, Am J Gastro 2001;96:3237)**

Celiac disease
Dermatitis herpetiformis
Cow's milk protein intolerance (children)
Post-gastroenteritis
Giardiasis
Peptic duodenitis
Crohn's disease
Small intestinal bacterial overgrowth
Eosinophilic gastroenteritis
Radiation or chemotherapy
Tropical sprue
Severe malnutrition
Diffuse small intestinal lymphoma
Graft versus host disease
Hypogammaglobulinemia
Alpha chain disease

**Table 2: Marsh (Gastroenterology 1992;102:330) and Rostami (Am J Gastroenterol 1999;94:888) modified histological criteria for CD**

Criteria		Rostami modification (1999)	Original Marsh (1992)
<b>Marsh 0</b>		Same as original	<b>Pre-infiltrative:</b> <ul style="list-style-type: none"> <li>• Normal mucosal and villous architecture</li> </ul>
<b>Marsh I</b>		Same as original	<b>Infiltrative:</b> <ul style="list-style-type: none"> <li>• Normal mucosal and villous architecture</li> <li>• Increased numbers of IELs</li> </ul>
<b>Marsh II</b>		Same as original	<b>Hyperplastic:</b> <ul style="list-style-type: none"> <li>• Similar to above but with enlarged crypts, with increased crypt cell division</li> </ul>
<b>Marsh III</b>	<b>a</b>	<b>Partial VA:</b> <ul style="list-style-type: none"> <li>• Shortened blunt villi</li> <li>• Mild lymphocyte infiltration</li> <li>• Enlarged hyperplastic crypts</li> </ul>	<b>Destructive lesion:</b> <ul style="list-style-type: none"> <li>• Flat mucosa – complete loss of villi</li> <li>• Lymphocyte infiltration</li> <li>• Enlarged hyperplastic crypts</li> </ul>
	<b>b</b>	<b>Sub-total VA:</b> <ul style="list-style-type: none"> <li>• Clearly atrophic villi – but still recognizable</li> <li>• Enlarged crypts whose immature epithelial cells are generated at an increased rate</li> <li>• Influx of inflammatory cells</li> </ul>	
	<b>c</b>	<b>Total VA:</b> <ul style="list-style-type: none"> <li>• Nearly total VA</li> <li>• Severe Marsh atrophic, hyperplastic and infiltrative lesions</li> </ul>	
<b>Marsh IV</b>		Same as original	<b>Hypoplastic:</b> <ul style="list-style-type: none"> <li>• Total VA</li> <li>• Normal crypt height but hypoplasia</li> <li>• Normal IEL count</li> <li>• Many feel this doesn't exist and represents severe malnutrition</li> </ul>
VA=villous atrophy IEL=intraepithelial lymphocytes			

**Table 3: Revised ESPGAN criteria**

Criteria	ESPGAN*- 1979	ESPGAN†- Revised 1990
Initial histology	<ul style="list-style-type: none"> <li>- Absent or nearly absent villi</li> <li>- Recognized existence of less severe lesion</li> <li>- No consensus on verification of less severe lesions but recommended if possible continuing gluten diet and assess histology, or re-challenge after GFD, given the large differential of milder histologic lesions</li> </ul>	<ul style="list-style-type: none"> <li>- Biopsy must remain the initial step in the diagnosis (mandatory)</li> <li>- Recommend capsule over endoscopic biopsy</li> <li>- Large well oriented biopsy</li> <li>- Histology: hyperplastic VA with hyperplasia of the crypts and an abnormal surface epithelium. The IEL count is raised</li> <li>- Morphometry and histochemistry are important aids to diagnosis.</li> <li>- Monoclonal antibodies to IEL may be a future aid</li> </ul>
Antibody studies	<ul style="list-style-type: none"> <li>- n/a</li> </ul>	<ul style="list-style-type: none"> <li>- Recognize that IgA AGA, and EMA have a high degree of sensitivity and specificity for the diagnosis of CD</li> <li>- When such antibodies are present at the time of diagnosis in a child with a typical small intestinal mucosa, and when they disappear in parallel to a clinical response to a GFD, weight is added to the diagnosis of CD that may now be said to have been finally established</li> <li>- When biopsy is unavailable in communities where other causes of enteropathy are rare, the presence of abnormal concentrations of two antibodies strongly suggests that CD is a diagnostic possibility</li> <li>- Antibodies can be a marker of response to a GFD and a guide to dietary compliance</li> </ul>
Improvement on GFD	<ul style="list-style-type: none"> <li>- Recognized as central to the definition</li> <li>- Recognized that improvement need not be complete</li> </ul>	<ul style="list-style-type: none"> <li>- Second mandatory requirement remains a reasonably rapid (weeks rather than many months) clinical remission on a strict GFD</li> <li>- Control biopsy is always a suitable way of verifying the effect of GFD, and is required in asymptomatic pts</li> </ul>
Gluten Challenge	<ul style="list-style-type: none"> <li>- Importance of gluten challenge and re-biopsy emphasized to document "permanence" of gluten intolerance</li> <li>- However, the panel recognized that challenge was not being performed in routine practice (only 652 were performed among several thousand children with gluten intolerance)</li> </ul>	<ul style="list-style-type: none"> <li>- No longer a requirement</li> <li>- Should be used in equivocal cases such as when no initial biopsy was done, biopsy was inadequate or atypical, in communities with high rates of other enteropathies, or in situations when pts plan to abandon the GFD in an uncontrolled way</li> <li>- Challenge should be performed after obtaining a control biopsy on a GFD</li> <li>- Re-biopsy is performed 3-6 months later with the recognition that relapse can take 5-7 years or more to occur.</li> </ul>
2-year rule	<ul style="list-style-type: none"> <li>- To address the issue of transient gluten intolerance, the panel emphasized the usefulness of the 2-year rule after stopping a GFD</li> <li>- 619 of 652 gluten challenges redeveloped histology compatible with CD by 2 years</li> </ul>	<ul style="list-style-type: none"> <li>- The 2-year rule is practical in most cases, but several reports of relapse occurring 5-7 years after gluten rechallenge</li> </ul>
<p>*McNeish et al., Arch Dis Child 1979;54:783          †Walker-Smith et al., Arch Dis Child 1990:65:99          CD=celiac disease; n/a=not applicable; GFD=gluten-free diet</p>		

# Appendix B. Search Strategies

## Search Strategy 1

### Celiac 1 – Diagnostic Tests

#### Test 1. EMA

MEDLINE on DIALOG

1. s anti(w)endomysial(w)antibod? OR antiendomysial(w)antibod?
2. s anti(w)endomysium(w)antibod? OR antiendomysium(w)antibod?
3. s endomysial(w)antibod? OR endomysium(w)antibod? OR endomysial(w)autoantibod? OR endomysium(w)autoantibod?
4. s endomysial(n3)iga OR antiendomysial(n3)iga OR iga(n)ema
5. s endomysium(n3)iga OR antiendomysium(n3)iga OR igg(n)ema
6. s immunoglobulin?(n3)endomysial OR immunoglobulin?(n3)antiendomysial
7. s immunoglobulin?(n3)endomysium OR immunoglobulin?(n3)antiendomysium
8. s ema(n3)antibod? OR ema(n3)autoantibod? OR anti(w)ema OR ema(n3)positiv?
9. s aea AND (endomysial OR endomysium OR antiendomys?) OR aea(n3)positiv? OR aea(n2)igg OR aea(n2)iga
10. c 1 OR 2 OR 3 OR 4 OR 5 OR 6 OR 7 OR 8 OR 9
11. s (celiac OR celiacs OR coeliac OR coeliacs OR gluten OR glutens OR glutenin OR glutenins OR gliadin OR gliadins OR celiac disease/de) AND (ema OR aea)
12. s (celiac OR celiacs OR coeliac OR coeliacs OR gluten OR glutens OR glutenin OR glutenins OR gliadin OR gliadins OR celiac disease/de) AND autoantibod?(n2) positiv?
13. c 10 OR 11 OR 12
14. s epithelial(w)membrane(w)antigen
15. c 13 NOT 14
16. s s15/human
17. s s16/eng

EMBASE on DIALOG

1. s anti(w)endomysial(w)antibod? OR antiendomysial(w)antibod?
2. s anti(w)endomysium(w)antibod? OR antiendomysium(w)antibod?
3. s endomysial(w)antibod? OR endomysium(w)antibod? OR endomysial(w)autoantibod? OR endomysium(w)autoantibod? OR endomysium antibody/de
4. s endomysial(n3)iga OR antiendomysial(n3)iga OR iga(n)ema
5. s endomysium(n3)iga OR antiendomysium(n3)iga OR igg(n)ema
6. s immunoglobulin?(n3)endomysial OR immunoglobulin?(n3)antiendomysial
7. s immunoglobulin?(n3)endomysium OR immunoglobulin?(n3)antiendomysium
8. s ema(n3)antibod? OR ema(n3)autoantibod? OR anti(w)ema OR ema(n3)positiv?
9. s aea AND (endomysial OR endomysium OR antiendomys?) OR aea(n3)positiv? OR aea(n2)igg OR aea(n2)iga
10. c 1 OR 2 OR 3 OR 4 OR 5 OR 6 OR 7 OR 8 OR 9
11. s (celiac OR celiacs OR coeliac OR coeliacs OR gluten OR glutens OR glutenin OR glutenins OR gliadin OR gliadins OR celiac disease/de) AND (ema OR aea)
12. s (celiac OR celiacs OR coeliac OR coeliacs OR gluten OR glutens OR glutenin OR glutenins OR gliadin OR gliadins OR celiac disease/de) AND autoantibod?(n2)positiv?
13. c 10 OR 11 OR 12

- 14. s epithelial(w)membrane(w)antigen
- 15. c 13 not 14
- 16. s s15/human
- 17. s s16/eng

## Test 2. tTG

### MEDLINE on DIALOG

1. s tissue(w)transglutaminase?? OR tissue(w)trans(w)glutaminase??
2. s antitissue(w)transglutaminase?? OR anti(w)transglutaminase??
3. s human(w)transglutaminase?? OR antitransglutaminase??(n3)antibod?
4. s (immunoglobulin? OR immunoglobulin a/de OR immunoglobulin g/de) AND (transglutaminase OR transglutaminases)
5. s ttg(n3)antibod? OR ttg(n3)autoantibod? OR ttg(w)(kit OR kits) OR ttga OR httg OR anti(w2)ttg OR human(w)ttg OR elisa(n)ttg OR attga
6. s (transglutaminase?? AND antibod?) OR (transglutaminase?? AND autoantibod?)
7. s transglutaminase??(n3)iga OR transglutaminase??(n3)igg OR tg2(n5)transglutaminase?? OR human(w) recombinant(w)tg2
8. s anti(w)gamma(w)glutamyltransferase AND (antibod? OR autoantibod?)
9. c 1 OR 2 OR 3 OR 4 OR 5 OR 6 OR 7 OR 8
10. s (celiac OR celiacs OR coeliac OR coeliacs OR gluten OR glutens OR glutenin OR glutenins OR gliadin OR gliadins OR celiac disease/de) AND (transglutaminase OR transglutaminases OR ttg OR tg2)
11. c 9 OR 10
12. s s11/human
13. s s12/eng

### EMBASE on DIALOG

1. s tissue(w)transglutaminase?? OR tissue(w)trans(w)glutaminase??
2. s antitissue(w)transglutaminase?? OR anti(w)transglutaminase??
3. s human(w)transglutaminase?? OR antitransglutaminase??(n3)antibod?
4. s immunoglobulin OR immunoglobulin a/de OR immunoglobulin a1/de OR immunoglobulin a2/de
5. s immunoglobulin g/de OR immunoglobulin g1/de OR immunoglobulin g2/de OR immunoglobulin g2a/de OR immunoglobulin g2b/de OR immunoglobulin g3/de OR immunoglobulin g4/de
6. s transglutaminase OR transglutaminases
7. c 4 OR 5
8. c 7 AND 6
9. s ttg(n3)antibod? OR ttg(n3)autoantibod? OR ttg(w)(kit OR kits OR assay) OR ttga OR httg OR anti(w2)ttg OR human(w)ttg OR elisa(n)ttg OR attga
10. s (transglutaminase?? AND antibod?) OR (transglutaminase?? AND autoantibod?)
11. s transglutaminase??(n3)iga OR transglutaminase??(n3)igg OR tg2(n5)transglutaminase?? OR human(w) recombinant(w)tg2
12. s anti(w)gamma(w)glutamyltransferase AND (antibod? OR autoantibod?)
13. c 1 OR 2 OR 3 OR 8 OR 9 OR 10 OR 11 OR 12
14. s (celiac OR celiacs OR coeliac OR coeliacs OR gluten OR glutens OR glutenin OR glutenins OR gliadin OR gliadins OR celiac disease/de) AND (transglutaminase OR transglutaminases OR ttg OR tg2)
15. c 13 OR 14
16. s s15/human
17. s s16/eng

## Test 3. AGA

MEDLINE on DIALOG

1. s gliadin(w)antibod? OR antigliadin(w)antibod? OR iga(n3)antigliadin OR igg(n3)antigliadin
2. s antigliadin AND (serology OR serological)
3. s iga(n2)aga OR igg(n2)aga OR aga(n3)positive? OR anti(w)aga
4. s (celiac OR celiacs OR coeliac OR coeliacs OR gluten OR glutens OR glutenin OR glutenins OR gliadin OR gliadins OR celiac disease/de) AND (aga OR antigliadin?)
5. c 1 OR 2 OR 3
6. c 5 OR 4
7. s s6/human
8. s s7/eng

EMBASE on DIALOG

1. s gliadin(w)antibod? OR antigliadin(w)antibod? OR iga(n3)antigliadin OR igg(n3)antigliadin
2. s antigliadin AND (serology OR serological)
3. s iga(n2)aga OR igg(n2)aga OR aga(n3)positive? OR anti(w)aga
4. s (celiac OR celiacs OR coeliac OR coeliacs OR gluten OR glutens OR glutenin OR glutenins OR gliadin OR gliadins OR celiac disease/de) AND (aga OR antigliadin? OR anti(w)gliadin?)
5. c 1 OR 2 OR 3
6. c 5 OR 4
7. s s6/human
8. s s7/eng

## Test 4. HLA DQ2/DQ8

MEDLINE on DIALOG

1. s (leukocyte OR leukocytes OR leucocyte OR leucocytes) AND (antigen OR antigens)
2. s hla OR hla-dq antigens/de OR hla antigens/de OR hla dq OR histocompatibility antigens/de OR histocompatibility testing/de OR histocompatibility
3. c 1 OR 2
4. s dq2? OR dq8? OR hla dq2? OR hla dq8? OR d2? OR d8?
5. c 3 AND 4
6. s celiac OR celiacs OR coeliac OR coeliacs OR gluten OR glutens OR glutenin OR glutenins OR gliadin OR gliadins OR celiac disease/de
7. s hla(w)antigen?? OR hla antigens/de OR hla-dq antigens/de
8. c 6 AND 7
9. c 5 OR 8
10. s s8/human
11. s s9/eng

EMBASE on DIALOG

1. s (leukocyte OR leukocytes OR leucocyte OR leucocytes) AND antigen
2. s (leukocyte OR leukocytes OR leucocyte OR leucocytes) AND antigens
3. s hla OR hla dq antigen/de OR hla antigen/de OR hla dq OR histocompatibility antigen/de OR histocompatibility test/de OR histocompatibility/ti,ab,de
4. c 1 OR 2 OR 3
5. s dq2? OR dq8? OR hla dq2? OR hla dq8? OR d2? OR d8?
6. c 4 AND 5
7. s celiac OR celiacs OR coeliac OR coeliacs OR gluten OR glutens OR glutenin OR glutenins OR gliadin OR gliadins
8. s hla(w)antigen?? OR hla antigen/de OR hla dq antigen/de
9. c 7 AND 8
10. c 6 OR 9
11. s s10/human
12. s s11/eng

## Test 5. Small bowel biopsy

### MEDLINE on DIALOG

1. s celiac???(w)disease OR coeliac???(w)disease OR celiac(w)sprue OR coeliac(w)sprue OR celiac(w)syndrome OR coeliac(w)syndrome
2. s celiacs OR coeliacs OR celiac disease/de
3. s silent(w)celiac OR silent(w)coeliac OR asymptomatic(w)celiac OR asymptomatic(w)coeliac OR undetected(n3)(celiac OR coeliac)
4. s subclinical(w)celiac OR subclinical(w)coeliac OR sub(w)clinical(w)celiac OR sub(w)clinical(w)coeliac OR undiagnosed(n3)celiac OR undiagnosed(n3)coeliac
5. s nontropical(w)sprue OR non(w)tropical(w)sprue OR endemic(w)sprue
6. s gluten(n3)enteropath? OR gluten(n3)sensitiv? OR gluten(n3)hypersensitive? OR gluten(n3)intoleran? OR glutenin??(n3)hypersensitiv? OR glutenin??(n3) sensitiv? OR glutenin??(n3)intoleran?
7. s gliadin(n3)hypersensitiv? OR gliadin(n3)intoleran?
8. s wheat(n3)hypersensitiv? OR wheat(n3)intoleran? OR wheat hypersensitivity/de
9. s (wheat OR triticum OR gluten) AND food hypersensitivity/de
10. c 1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9
11. s celiac disease(l)pathology OR celiac disease(l)diagnosis OR wheat hypersensitivity(l)diagnosis OR wheat hypersensitivity(l)pathology
12. s (wheat OR triticum OR gluten) AND food hypersensitivity(l)diagnosis
13. s (wheat OR triticum OR gluten) AND food hypersensitivity(l)pathology
14. c 11 or 12 or 13
15. s intestine, small(l)pathology OR duodenum(l)pathology OR jejunum(l)pathology OR ileum(l)pathology OR small(n2)bowel/ti,ab OR small(n2)intestine?/ti,ab
16. s biopsy! OR biopsy/ti,ab OR biopsies/ti,ab
17. c 14 AND 15 AND 16
18. s small(w)(bowel OR intestine OR intestines) OR intestinal(w)mucosa
19. c 10 AND 16 AND 18
20. s (villi OR villus OR villous OR microvilli)(n3)atrophy?
21. c (10 AND 20) OR (14 AND 20)
22. c 17 OR 19 OR 21
23. s s22/human
24. s s23/eng

### EMBASE on DIALOG

1. s celiac???(w)disease OR coeliac???(w)disease OR celiac(w)sprue OR coeliac(w)sprue OR celiac(w)syndrome OR coeliac(w)syndrome
2. s celiacs OR coeliacs OR celiac disease/de
3. s silent(w)celiac OR silent(w)coeliac OR asymptomatic(w)celiac OR asymptomatic(w)coeliac OR undetected(n3)(celiac OR coeliac)
4. s subclinical(w)celiac OR subclinical(w)coeliac OR sub(w)clinical(w)celiac OR sub(w)clinical(w)coeliac OR undiagnosed(n3)celiac OR undiagnosed(n3)coeliac
5. s nontropical(w)sprue OR non(w)tropical(w)sprue OR endemic(w)sprue
6. s gluten(n3)enteropath? OR gluten(n3)sensitiv? OR gluten(n3)hypersensitive? OR gluten(n3)intoleran? OR glutenin??(n3)hypersensitiv? OR glutenin??(n3) sensitiv? OR glutenin??(n3)intoleran?
7. s gliadin(n3)hypersensitiv? OR gliadin(n3)intoleran?
8. s wheat(n3)hypersensitiv? OR wheat(n3)intoleran? OR wheat allergy/de
9. s (wheat OR triticum OR gluten OR glutens) AND food allergy/de
10. c 1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9
11. s small intestine/de OR duodenum/ti,ab,de OR jejunum/ti,ab,de OR ileum/ti,ab,de OR small(n2)bowel/ti,ab OR small(n2)intestine?/ti,ab OR duodenal/ti,ab OR jejunal/ti,ab OR ileal/ti,ab
12. s dc=a3.60.70? [small intestine]

13. s small(w)(bowel OR intestine OR intestines) OR intestinal(w)mucosa
14. s intestine mucosa/de or duodenum mucosa/de OR jejunum mucosa/de OR ileum mucosa/de
15. c 11 OR 12 OR 13 OR 14
16. s biopsy/ti,ab,de OR biopsies/ti,ab
17. c 15 AND 16
18. s intestine biopsy/de OR duodenum biopsy/de OR jejunum biopsy/de OR ileum biopsy/de
19. c 17 OR 18
20. c 10 AND 19
21. s (villi OR villus OR villous OR microvilli)(n3)atroph?
22. c 10 AND 21
23. c 20 OR 22
24. s s23/human
25. s s24/eng

## Celiac 2 – Epidemiology

MEDLINE on DIALOG

1. s celiac???(w)disease OR coeliac???(w)disease OR celiac(w)sprue OR coeliac(w)sprue OR celiac(w)syndrome OR coeliac(w)syndrome
2. s celiacs OR coeliacs OR celiac disease/de
3. s silent(w)celiac OR silent(w)coeliac OR asymptomatic(w)celiac OR asymptomatic(w)coeliac OR undetected(n3)(celiac OR coeliac)
4. s subclinical(w)celiac OR subclinical(w)coeliac OR sub(w)clinical(w)celiac OR sub(w)clinical(w)coeliac OR undiagnosed(n3)celiac OR undiagnosed(n3)coeliac
5. s nontropical(w)sprue OR non(w)tropical(w)sprue OR endemic(w)sprue
6. s gluten(n3)enteropath? OR gluten(n3)sensitiv? OR gluten(n3)hypersensitive? OR gluten(n3)intoleran? OR glutenin??(n3)hypersensitiv? OR glutenin??(n3) sensitiv? OR glutenin??(n3)intoleran?
7. s gliadin(n3)hypersensitiv? OR gliadin(n3)intoleran?
8. s wheat(n3)hypersensitive? OR wheat(n3)intoleran? OR wheat hypersensitivity/de
9. s (wheat OR triticum OR gluten) AND food hypersensitivity/de
10. c 1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9
11. s celiac disease(l)epidemiology OR celiac disease(l)ethnology OR wheat hypersensitivity(l)epidemiology OR wheat hypersensitivity(l)ethnology
12. s (wheat OR triticum OR gluten) AND food hypersensitivity(l)epidemiology
13. s (wheat OR triticum OR gluten) AND food hypersensitivity(l)ethnology
14. s epidemiolog?/ti,de OR occurrence/ti,de OR prevalence/ti,de OR incidence/ti,de OR pedigree/de OR seroprevalence OR seroepidemiol? OR epidemiologic studies! OR epidemiologic measurements/de [check!!]
15. s population characteristics! OR population! OR demography! OR demographic?/ti,ab OR population?/ti,de
16. s minority groups/de OR ethnic groups! OR racial stocks!
17. s anemia(w2)iron(w)deficiency/de OR anemia(w)hypochromic/de OR iron(w)deficiency(w)anemia OR osteoporosis/ti,ab,de OR diabetes mellitus, insulin-dependent! OR juvenile(w)diabetes
18. s diabetes AND type(w)(1 OR I OR one)
19. s celiac disease(l)genetics OR gluten(l)genetics OR wheat hypersensitivity(l)genetics
20. s (wheat OR triticum OR gluten) AND food hypersensitivity(l)genetics
21. s family! OR genetic predisposition to disease! OR genetic(w)predisposition OR family(n3)(member OR members) OR familial
22. s family/ti,ab OR families/ti,ab OR familial/ti,ab OR brother/ti,ab OR brothers/ti,ab OR sister/ti,ab OR sisters/ti,ab OR aunt/ti,ab OR aunts/ti,ab OR uncle/ti,ab OR uncles/ti,ab OR cousin/ti,ab OR cousins/ti,ab
23. s parent/ti,ab OR parents/ti,ab OR mother/ti,ab OR mothers/ti,ab OR father/ti,ab OR fathers/ti,ab OR wife/ti,ab OR wives/ti,ab OR husband/ti,ab OR husbands/ti,ab
24. s son/ti,ab OR sons/ti,ab OR daughter/ti,ab OR daughters/ti,ab OR children/ti,ab OR relatives/ti,ab OR sibling/ti,ab OR siblings/ti,ab OR offspring/ti,ab
25. c 21 OR 22 OR 23 OR 24
26. c 19 OR 20
27. c 25 AND 26
28. c 14 OR 15 OR 16 OR 17 OR 18
29. c 10 AND 28
30. c 27 OR 29 OR 11 OR 12 OR 13
31. s s30/human
32. s s31/eng
33. s animal/de
34. c 32 NOT 33

EMBASE on DIALOG

1. s celiac???(w)disease OR coeliac???(w)disease OR celiac(w)sprue OR coeliac(w)sprue OR celiac(w)syndrome OR coeliac(w)syndrome
2. s celiacs OR coeliacs OR celiac disease/de
3. s silent(w)celiac OR silent(w)coeliac OR asymptomatic(w)celiac OR asymptomatic(w)coeliac OR undetected(n3)(celiac OR coeliac)
4. s subclinical(w)celiac OR subclinical(w)coeliac OR sub(w)clinical(w)celiac OR sub(w)clinical(w)coeliac OR undiagnosed(n3)celiac OR undiagnosed(n3)coeliac
5. s nontropical(w)sprue OR non(w)tropical(w)sprue OR endemic(w)sprue OR refractory(w)sprue
6. s gluten(n3)enteropath? OR gluten(n3)sensitiv? OR gluten(n3)hypersensitive? OR gluten(n3)intoleran? OR glutenin??(n3)hypersensitiv? OR glutenin??(n3) sensitiv? OR glutenin??(n3)intoleran?
7. s gliadin(n3)hypersensitiv? OR gliadin(n3)intoleran?
8. s wheat(n3)hypersensitive? OR wheat(n3)intoleran? OR wheat allergy/de OR cereal(w)allergy 9. s (wheat OR triticum OR gluten?? OR glutinin??) AND (food allergy/de OR allergy/de OR hypersensitivity/de OR food allergen/de)
10. c 1 OR 2 OR 3 OR 4 OR 5 OR 6 OR 7 OR 8 OR 9
11. s epidemiology/de,id OR dc=c1.270? OR epidemiolog?/ti,ab OR seroepidemiol? OR epidemiological data/de 12. s occurrence/ti,de OR prevalence/ti,de OR incidence/ti,de OR pedigree/ti,de OR pedigree analysis/de OR dc=g1.385.170? OR seroprevalence
13. s dc= g1.250.710.715? OR dc= i1.700? OR demography/ti,ab,de OR demographic?/ti,ab OR population?/ti,de OR population research/de OR population risk/de
14. s minority(w)group?? OR ethnic(w)group?? OR minorities/ti,ab OR dc=g1.750? OR dc=i1.275? OR dc=m2? OR ethnology/ti,ab,de OR ethnic difference/de OR ethnicity/ti,ab
15. s iron(w)deficiency(w)anemia OR iron deficiency anemia/de OR anemia(n3)hypochromic/ti,ab
16. s osteoporosis/ti,ab,de OR dc= c2.275.540.110.650?
17. s insulin dependent diabetes mellitus/de OR juvenile(w)diabetes OR insulin(w)dependent(w)diabetes
18. s diabetes AND type(w)(1 OR i OR one)
19. s familial disease/de OR family study/de OR familial incidence/de
20. c 11 OR 12 OR 13 OR 14 OR 15 OR 16 OR 17 OR 18 OR 19
21. s celiac disease/de OR gluten??/ti,ab OR wheat allergy/de OR cereal(w)allergy
22. s (wheat OR triticum OR gluten?? OR glutinin??) AND (food allergy/de OR allergy/de OR hypersensitivity/de OR food allergen/de)
23. c 21 OR 22
24. s genetics/de OR q1.340?
25. c 23 AND 24
26. s genetic(w)predisposition OR family(n3)(member OR members)
27. s family/ti,ab OR families/ti,ab OR familial/ti,ab OR brother/ti,ab OR brothers/ti,ab OR sister/ti,ab OR sisters/ti,ab OR aunt/ti,ab OR aunts/ti,ab OR uncle/ti,ab OR uncles/ti,ab OR cousin/ti,ab OR cousins/ti,ab
28. s parent/ti,ab OR parents/ti,ab OR mother/ti,ab OR mothers/ti,ab OR father/ti,ab OR fathers/ti,ab OR wife/ti,ab OR wives/ti,ab OR husband/ti,ab OR husbands/ti,ab
29. s son/ti,ab OR sons/ti,ab OR daughter/ti,ab OR daughters/ti,ab OR children/ti,ab OR relatives/ti,ab OR sibling/ti,ab OR siblings/ti,ab OR offspring/ti,ab
30. c 26 OR 27 OR 28 OR 29
31. c 25 AND 30
32. c 10 AND 20
33. c 31 OR 32
34. s celiac disease(l)epidemiology
35. s (celiac disease/de OR wheat allergy/de OR cereal(w)allergy) AND epidemiology/de
36. s (wheat OR triticum OR gluten?? OR glutinin??) AND (food allergy/de OR allergy/de OR hypersensitivity/de OR food allergen/de) AND epidemiology/de
37. c 34 OR 35 OR 36
38. c 33 OR 37
39. s s38/human
40. s s39/eng

## Celiac 3 – Lymphomas

### MEDLINE on DIALOG

1. s celiac???(w)disease OR coeliac???(w)disease OR celiac(w)sprue OR coeliac(w)sprue OR celiac(w)syndrome OR coeliac(w)syndrome
2. s celiacs OR coeliacs OR celiac disease/de
3. s silent(w)celiac OR silent(w)coeliac OR asymptomatic(w)celiac OR asymptomatic(w)coeliac OR undetected(n3)(celiac OR coeliac)
4. s subclinical(w)celiac OR subclinical(w)coeliac OR sub(w)clinical(w)celiac OR sub(w)clinical(w)coeliac OR undiagnosed(n3)celiac OR undiagnosed(n3)coeliac
5. s nontropical(w)sprue OR non(w)tropical(w)sprue OR endemic(w)sprue
6. s gluten(n3)enteropath? OR gluten(n3)sensitiv? OR gluten(n3)hypersensitive? OR gluten(n3)intoleran? OR glutenin??(n3)hypersensitiv? OR glutenin??(n3) sensitiv? OR glutenin??(n3)intoleran?
7. s gliadin(n3)hypersensitiv? OR gliadin(n3)intoleran?
8. s wheat(n3)hypersensitive? OR wheat(n3)intoleran? OR wheat hypersensitivity/de
9. s (wheat OR triticum OR gluten) AND food hypersensitivity/de
10. c 1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9
11. s (villi OR villus OR villous OR microvilli)(n3)atroph?
12. c 10 OR 11
13. s lymphoma/ti,ab,de OR lymphomas/ti,ab,de OR lymphoma! OR hodgkin?/ti,ab,de
14. s intestine/ti,ab,de OR intestinal/ti,ab,de OR duodenum/ti,ab,de OR duodenal/ti,ab,de OR jejunum/ti,ab,de OR jejunal/ti,ab,de OR ileum/ti,ab,de OR ileal/ti,ab,de
15. s small(n2)bowel/ti,ab OR small(n2)intestine?/ti,ab OR large(n2)intestine?/ti,ab OR large(n2)bowel/ti,ab OR intestines!
16. s gastric/ti,ab,de OR gastro?/ti,ab,de OR gi/ti,ab OR stomach/ti,ab,de OR pylorus/ti,ab,de OR pyloric/ti,ab,de OR esophagogastr?
17. c 14 or 15 or 16
18. c 12 AND 13 AND 17
19. s s18/human
20. s s19/eng

### EMBASE on DIALOG

1. s celiac???(w)disease OR coeliac???(w)disease OR celiac(w)sprue OR coeliac(w)sprue OR celiac(w)syndrome OR coeliac(w)syndrome
2. s celiacs OR coeliacs OR celiac disease/de
3. s silent(w)celiac OR silent(w)coeliac OR asymptomatic(w)celiac OR asymptomatic(w)coeliac OR undetected(n3)(celiac OR coeliac)
4. s subclinical(w)celiac OR subclinical(w)coeliac OR sub(w)clinical(w)celiac OR sub(w)clinical(w)coeliac OR undiagnosed(n3)celiac OR undiagnosed(n3)coeliac
5. s nontropical(w)sprue OR non(w)tropical(w)sprue OR endemic(w)sprue
6. s gluten(n3)enteropath? OR gluten(n3)sensitiv? OR gluten(n3)hypersensitive? OR gluten(n3)intoleran? OR glutenin??(n3)hypersensitiv? OR glutenin??(n3) sensitiv? OR glutenin??(n3)intoleran?
7. s gliadin(n3)hypersensitiv? OR gliadin(n3)intoleran? Or gluten free diet/de OR gluten(w)free
8. s wheat(n3)hypersensitive? OR wheat(n3)intoleran? OR wheat allergy/de OR cereal(w)allergy
9. s (wheat OR triticum OR gluten?? OR glutinin??) AND (food allergy/de OR allergy/de OR hypersensitivity/de)
10. c 1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9
11. s (villi OR villus OR villous OR microvilli)(n3)atroph?
12. s refractory/ti,ab OR non(w)respond?/ti,ab OR nonrespond?/ti,ab OR non(w)responsiv?/ti,ab OR nonresponsiv?/ti,ab
13. s sprue OR celiac OR coeliac OR celiac disease/de
14. c 12 AND 13
15. c 10 OR 11 OR 14

16. s lymphoma/ti,ab,de OR lymphomas/ti,ab,de OR hodgkin?/ti,ab,de
17. s dc = c2.385.520.500.510? OR dc = c2.385.520.510.500? OR dc = c6.610.50.50? OR dc = c6.610.75.520.510? [var. lymphoma]
18. c 16 OR 17
19. s small intestine/de OR small(n2)bowel/ti,ab OR small(n2)intestine?/ti,ab OR duodenum/ti,ab,de OR duodenal/ti,ab OR jejunum/ti,ab,de OR jejunal/ti,ab OR ileum/ti,ab,de OR ileal/ti,ab
20. s large(n2)intestine?/ti,ab OR large(n2)bowel/ti,ab OR cecum/ti,ab,de OR colon/ti,ab,de OR colonic/ti,ab,de OR rectum/ti,ab,de OR rectal/ti,ab,de OR anus/ti,ab,de
21. s intestine/ti,ab,de OR intestinal/ti,ab,de OR dc = a3? [digestive system]
22. s intestine mucosa/de OR duodenum mucosa/de OR jejunum mucosa/de OR ileum mucosa/de OR intestinal(w)mucosa OR colon mucosa/de OR rectum mucosa/de OR small intestine mucosa/de
23. s gastric/ti,ab,de OR gastro?/ti,ab,de OR gi/ti,ab OR stomach/ti,ab,de OR cardia/ti,ab,de OR pylorus/ti,ab,de OR pyloric/ti,ab,de OR esophagogastr?
24. s digestive system cancer/de OR dc = c2.220.230.210? OR dc = c2.220.230.210? [digestive system cancer]
25. c 19 OR 20 OR 21 OR 22 OR 23 OR 24
26. c 15 AND 18 AND 25
27. s stomach lymphoma/de OR intestine lymphoma/de
28. c 15 AND 27
29. c 26 OR 28
30. s s29/human
31. s s30/eng

## Celiac 4 – Screening

### MEDLINE on DIALOG

1. s celiac???(w)disease OR coeliac???(w)disease OR celiac(w)sprue OR coeliac(w)sprue OR celiac(w)syndrome OR coeliac(w)syndrome
2. s celiacs OR coeliacs OR celiac disease/de
3. s silent(w)celiac OR silent(w)coeliac OR asymptomatic(w)celiac OR asymptomatic(w)coeliac OR undetected(n3)(celiac OR coeliac)
4. s subclinical(w)celiac OR subclinical(w)coeliac OR sub(w)clinical(w)celiac OR sub(w)clinical(w)coeliac OR undiagnosed(n3)celiac OR undiagnosed(n3)coeliac
5. s nontropical(w)sprue OR non(w)tropical(w)sprue OR endemic(w)sprue
6. s gluten(n3)enteropath? OR gluten(n3)sensitiv? OR gluten(n3)hypersensitive? OR gluten(n3)intoleran? OR glutenin??(n3)hypersensitiv? OR glutenin??(n3) sensitiv? OR glutenin??(n3)intoleran?
7. s gliadin(n3)hypersensitiv? OR gliadin(n3)intoleran?
8. s wheat(n3)hypersensitive? OR wheat(n3)intoleran? OR wheat hypersensitivity/de
9. s (wheat OR triticum OR gluten) AND food hypersensitivity/de
10. c 1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9
11. s screen/ti,ab OR screens/ti,ab OR screening/ti,ab OR screened/ti,ab OR mass screening!
12. c 10 AND 11
13. s celiac disease(l)diagnosis OR celiac disease(l)pathology
14. s "sensitivity and specificity"/de
15. s physician's practice patterns/de
16. s reference standards/de OR quality control/de OR evaluation studies/de OR predictive value of tests/de OR incidental findings/de
17. s reproducibility of results/de OR physical examination(l)standards OR diagnosis, differential/de OR diagnostic errors! OR follow-up studies/de
18. s public health/de OR public health practice/de OR population surveillance/de OR clinical protocols/de OR critical pathways/de
19. s quality assurance, health care! OR guideline adherence/de OR social control, formal/de OR "outcome assessment (health care)"/de
20. c 14 or 15 or 16 or 17 or 18 or 19
21. c 13 AND 20
22. c 12 OR 21
23. s s22/human
24. s s23/eng

### EMBASE on DIALOG

1. s celiac???(w)disease OR coeliac???(w)disease OR celiac(w)sprue OR coeliac(w)sprue OR celiac(w)syndrome OR coeliac(w)syndrome
2. s celiacs OR coeliacs OR celiac disease/de
3. s silent(w)celiac OR silent(w)coeliac OR asymptomatic(w)celiac OR asymptomatic(w)coeliac OR undetected(n3)(celiac OR coeliac)
4. s subclinical(w)celiac OR subclinical(w)coeliac OR sub(w)clinical(w)celiac OR sub(w)clinical(w)coeliac OR undiagnosed(n3)celiac OR undiagnosed(n3)coeliac
5. s nontropical(w)sprue OR non(w)tropical(w)sprue OR endemic(w)sprue
6. s gluten(n3)enteropath? OR gluten(n3)sensitiv? OR gluten(n3)hypersensitiv? OR gluten(n3)intoleran? OR glutenin??(n3)hypersensitiv? OR glutenin??(n3) sensitiv? OR glutenin??(n3)intoleran?
7. s gliadin(n3)hypersensitiv? OR gliadin(n3)intoleran?
8. s wheat(n3)hypersensitiv? OR wheat(n3)intoleran?
9. s (wheat OR triticum OR gluten) AND (food allergy/de OR hypersensitivity/de)
10. c 1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9
11. s mass screening/de OR mass(w)screen? OR genetic screening/de OR genetic(w)screen? OR newborn screening/de OR newborn??(n3)screen?

12. 10 AND 11
13. s screen/ti,ab OR screens/ti,ab OR screening/ti,ab OR screened/ti,ab
14. s dc=J2.10? [controlled study]
15. s dc=J2.40.10? [clinical study]
16. s dc=J2.50? [methodology]
17. s evaluation(w)study OR evaluation(w)studies OR physical examination/de OR follow-up studies/de
18. s dc=E1.215? [diagnosis]
19. s dc=N7.700? [practice guideline]
20. s dc=Q1.550.75? [social medicine]
21. c 14 or 15 or 16 or 17 or 18 or 19 or 20
22. c 10 AND 13 AND 21
23. c 12 OR 22
24. s s23/human
25. s s24/eng

#### CAB and AGRICOLA on DIALOG

1. s celiac???(w)disease OR coeliac???(w)disease OR celiac(w)sprue OR coeliac(w)sprue OR celiac(w)syndrome OR coeliac(w)syndrome
2. s celiacs OR coeliacs OR celiac syndrome/de
3. s silent(w)celiac OR silent(w)coeliac OR asymptomatic(w)celiac OR asymptomatic(w)coeliac OR undetected(n3)(celiac OR coeliac)
4. s subclinical(w)celiac OR subclinical(w)coeliac OR sub(w)clinical(w)celiac OR sub(w)clinical(w)coeliac OR undiagnosed(n3)celiac OR undiagnosed(n3)coeliac
5. s nontropical(w)sprue OR non(w)tropical(w)sprue OR endemic(w)sprue
6. s gluten(n3)enteropath? OR gluten(n3)sensitiv? OR gluten(n3)hypersensitiv? OR gluten(n3)intoleran? OR glutenin??(n3)hypersensitiv? OR glutenin??(n3) sensitiv? OR glutenin??(n3)intoleran?
7. s gliadin(n3)hypersensitiv? OR gliadin(n3)intoleran?
8. s wheat(n3)hypersensitiv? OR wheat(n3)intoleran?
9. s (wheat OR triticum OR gluten) AND (food allergies/de OR hypersensitivity/de)
10. c 1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9
11. s mass(w)screen? OR genetic(w)screen? OR newborn??(n3)screen?
12. c 10 AND 11
13. s screen/ti,ab OR screens/ti,ab OR screening/ti,ab OR screened/ti,ab
14. s evaluation(w)study OR evaluation(w)studies
15. c 10 AND 13 AND 14
16. c 12 OR 15
17. s s16/human
18. s s17/eng

#### PsycInfo on DIALOG

1. s celiac???(w)disease OR coeliac???(w)disease OR celiac(w)sprue OR coeliac(w)sprue OR celiac(w)syndrome OR coeliac(w)syndrome
2. s celiacs OR coeliacs
3. s silent(w)celiac OR silent(w)coeliac OR asymptomatic(w)celiac OR asymptomatic(w)coeliac OR undetected(n3)(celiac OR coeliac)
4. s subclinical(w)celiac OR subclinical(w)coeliac OR sub(w)clinical(w)celiac OR sub(w)clinical(w)coeliac OR undiagnosed(n3)celiac OR undiagnosed(n3)coeliac
5. s nontropical(w)sprue OR non(w)tropical(w)sprue OR endemic(w)sprue
6. s gluten(n3)enteropath? OR gluten(n3)sensitiv? OR gluten(n3)hypersensitiv? OR gluten(n3)intoleran? OR glutenin??(n3)hypersensitiv? OR glutenin??(n3) sensitiv? OR glutenin??(n3)intoleran?
7. s gliadin(n3)hypersensitiv? OR gliadin(n3)intoleran?
8. s wheat(n3)hypersensitiv? OR wheat(n3)intoleran?
9. s (wheat OR triticum OR gluten) AND food allergies/de
10. c 1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9

11. s mass(w)screen? OR genetic(w)screen? OR newborn??(n3)screen? OR screening/de OR screening tests/de OR health screening/de
12. c 10 AND 11
13. s screen/ti,ab OR screens/ti,ab OR screening/ti,ab OR screened/ti,ab
14. s evaluation(w)study OR evaluation(w)studies OR physical examination/de OR followup studies/de OR evaluation/de
15. c 10 AND 13 AND 14
16. c 12 OR 15
17. s s16/human
18. s s17/eng

Sociological Abstracts at CAB

Limits set to English

1. celiac (KW) OR celiacs (KW) OR coeliac (KW) OR coeliacs (KW)
2. wheat (KW) OR gluten\* (KW) OR gliadin\* OR food (DE) OR foods (KW)
3. allergy (KW) OR allergies (KW) OR hypersensitivit\* (KW) OR sensitive\* (KW) OR intolerance\* (KW)
4. mass public (DE) OR screen (KW OR screens (KW) OR screening (KW) OR screened (KW)
5. 1 AND 4
6. 2 and 3 AND 4
7. 5 OR 6

## Celiac 5 – Dietary Compliance

MEDLINE on DIALOG:

### Part 1

1. s celiac disease(l)psychology OR diet therapy(l)education OR diet therapy(l)methods OR diet therapy(l)standards OR diet therapy(l)trends OR diet therapy(l)utilization OR diet therapy(l)psychology
2. s diet(l)methods OR diet(l)trends OR diet(l)psychology OR diet(l)standards OR diet(l)utilization
3. s psychological tests/de OR health behavior/de OR patient acceptance of health care! OR health education/de OR patient education/de OR nutrition(l)education OR teaching!
4. s quality of life/de OR menu planning/de OR food habits/de OR feeding behavior/de OR quality of health care/de OR compliance/ti,ab OR adherence/ti,ab OR motivation/ti,ab,de
5. s achievement/de OR motivation/de OR directive counseling/de OR counseling/de OR psychology, applied/de OR psychology, educational/de OR learning/de OR child guidance/de
6. s adaptation, psychological/de OR attitude/de OR attitude of health personnel/de OR professional-patient relations! OR attitude to health!
7. s health promotion/de OR decision making! OR risk reduction behavior/de OR early(w)intervention/de OR intervention/ti,ab OR interventions/ti,ab OR data collection/de
8. s diet, protein-restricted(l)methods OR diet, protein-restricted(l)trends OR diet, protein-restricted(l)psychology OR diet, protein-restricted(l)standards OR diet, protein-restricted(l)utilization
9. s health surveys/de OR nutrition assessment! OR Behavioral Risk Factor Surveillance System/de OR interviews! OR questionnaire?/ti,ab,de
10. s guideline adherence/de OR evaluation studies/de OR “outcome assessment (health care)” OR “process assessment (health care)” OR food labeling/de
11. c 1 OR 2 OR 3 OR 4 OR 5 OR 6 OR 7 OR 8 OR 9 OR 10
12. s celiac disease(l)diet therapy
13. c 11 AND 12
14. s triticum(l)adverse effects OR wheat hypersensitivity/de OR gluten(n2)withdraw? OR gluten(l)adverse effects OR gliadin(l)adverse effects OR gluten(w)free
15. s diet OR dietary OR diets OR nutrition OR nutritional
16. c 14 AND 15
17. c 13 OR 16
18. s s17/human
19. s s18/eng

### Part 2

1. s food labeling/de
2. s celiac OR coeliac OR triticum OR wheat hypersensitivity/de OR gluten OR gliadin OR celiac disease/de
3. c 1 and 2
4. s s3/human
5. s s4/eng

EMBASE on DIALOG

1. s celiac??? (w)disease OR coeliac??? (w)disease OR celiac(w)sprue OR coeliac(w)sprue OR celiac(w)syndrome OR coeliac(w)syndrome OR celiac(w)syndrome
2. s celiacs OR coeliacs OR celiac disease/de
3. s silent(w)celiac OR silent(w)coeliac OR asymptomatic(w)celiac OR asymptomatic(w)coeliac OR undetected(n3)(celiac OR coeliac)
4. s subclinical(w)celiac OR subclinical(w)coeliac OR sub(w)clinical(w)celiac OR sub(w)clinical(w)coeliac OR undiagnosed(n3)celiac OR undiagnosed(n3)coeliac
5. s nontropical(w)sprue OR non(w)tropical(w)sprue OR endemic(w)sprue

6. s gluten(n3)enteropath? OR gluten(n3)sensitiv? OR gluten(n3)hypersensitive? OR gluten(n3)intoleran? OR glutenin??(n3)hypersensitiv? OR glutenin??(n3) sensitiv? OR glutenin??(n3)intoleran?
7. s gliadin(n3)hypersensitiv? OR gliadin(n3)intoleran?
8. s wheat(n3)hypersensitive? OR wheat(n3)intoleran? OR wheat allergy/de
9. s (wheat OR triticum OR gluten) AND (hypersensitivity/de OR food allergy/de)
10. c 1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9
11. s diet restriction/de OR gluten(w)free(w)diet?? OR diet therapy/de OR diet?(w)intervention OR therapeutic(w)diet?? OR diet OR dietary OR diets OR nutrition OR nutritional OR dietary(w) restriction?? OR dietary(n3)guideline??
12. s intervention??/ti,ab,de OR feeding behavior/de OR gluten(w)free(w)food?/ti,ab OR nutritional intolerance/de
13. c 11 OR 12
14. c 10 AND 13
15. s health behavior/de OR illness behavior/de OR adaptive behavior/de OR behavior modification/de OR patient attitude/de OR patient compliance/de OR patient education/de OR patient guidance/de OR patient counseling/de
16. s quality of life/de OR coping(w)behavior/ti,ab OR adjustment??/ti,ab,de OR decision making/de OR early(w)intervention/ti,ab,de OR compliance/ti,ab OR adherence/ti,ab OR motivation/ti,ab,de OR coping behavior/de OR coping/ti,ab,de
17. s psychosocial(n3)aspect?? OR habit??/ti,ab,de OR attitude??/ ti,ab,de OR psychologic test /de OR counsel?/ti,ab,de OR psychological factor/de OR psychologist?/ti,ab,de
18. c 15 OR 16 OR 17
19. c 14 AND 18
20. s s19/human, eng

#### CAB and AGRICOLA on DIALOG

1. s celiac???(w)disease OR coeliac???(w)disease OR celiac(w)sprue OR coeliac(w)sprue OR celiac(w)syndrome OR coeliac(w)syndrome OR celiac(w)syndrome
2. s celiacs OR coeliacs OR celiac syndrome/de
3. s silent(w)celiac OR silent(w)coeliac OR asymptomatic(w)celiac OR asymptomatic(w)coeliac OR undetected(n3)(celiac OR coeliac)
4. s subclinical(w)celiac OR subclinical(w)coeliac OR sub(w)clinical(w)celiac OR sub(w)clinical(w)coeliac OR undiagnosed(n3)celiac OR undiagnosed(n3)coeliac
5. s nontropical(w)sprue OR non(w)tropical(w)sprue OR endemic(w)sprue
6. s gluten(n3)enteropath? OR gluten(n3)sensitiv? OR gluten(n3)hypersensitive? OR gluten(n3)intoleran? OR glutenin??(n3)hypersensitiv? OR glutenin??(n3) sensitiv? OR glutenin??(n3)intoleran?
7. s gliadin(n3)hypersensitiv? OR gliadin(n3)intoleran?
8. s wheat(n3)hypersensitive? OR wheat(n3)intoleran?
9. s (wheat OR triticum OR gluten) AND (hypersensitivity/de OR food allergies/de)
10. c 1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9
11. s gluten(w)free(w)diet?? OR diet treatment/de OR diet?(w)intervention OR therapeutic diets/de OR diet OR dietary OR diets OR nutrition OR nutritional
12. s dietary(w)restriction?? OR dietary(n3)guideline?? OR intervention??/ti,ab,de OR feeding behavior/de OR gluten(w)free(w)food?/ti,ab OR
13. c 11 OR 12
14. c 10 AND 13
15. s behavior modification/de OR patient compliance/de OR patient education/de
16. s quality of life/de OR coping(w)behavior/ti,ab OR adjustment??/ti,ab,de OR decision making/de OR early(w)intervention/ti,ab,de OR compliance/ti,ab OR adherence/ti,ab OR motivation/ti,ab,de OR coping/ti,ab
17. s psychosocial(n3)aspect?? OR habit??/ti,ab,de OR attitude??/ ti,ab,de OR counsel?/ti,ab,de OR psychological factors/de OR psychologist?/ti,ab,de
18. c 15 OR 16 OR 17
19. c 14 AND 18
20. s s19/human

21. s s20/eng

#### PsycInfo on DIALOG

1. s celiac???(w)disease OR coeliac???(w)disease OR celiac(w)sprue OR coeliac(w)sprue OR celiac(w)syndrome OR coeliac(w)syndrome OR celiac(w)syndrome
2. s celiacs OR coeliacs
3. s silent(w)celiac OR silent(w)coeliac OR asymptomatic(w)celiac OR asymptomatic(w)coeliac OR undetected(n3)(celiac OR coeliac)
4. s subclinical(w)celiac OR subclinical(w)coeliac OR sub(w)clinical(w)celiac OR sub(w)clinical(w)coeliac OR undiagnosed(n3)celiac OR undiagnosed(n3)coeliac
5. s nontropical(w)sprue OR non(w)tropical(w)sprue OR endemic(w)sprue
6. s gluten(n3)enteropath? OR gluten(n3)sensitiv? OR gluten(n3)hypersensitive? OR gluten(n3)intoleran? OR glutenin??(n3)hypersensitiv? OR glutenin??(n3) sensitiv? OR glutenin??(n3)intoleran?
7. s gliadin(n3)hypersensitiv? OR gliadin(n3)intoleran?
8. s wheat(n3)hypersensitive? OR wheat(n3)intoleran? OR wheat(n3)(allergy OR allergies)
9. s (wheat OR triticum OR gluten) AND food allergies/de
10. c 1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9
11. s gluten(w)free(w)diet?? OR diet?(w)intervention OR therapeutic(w)diet?? OR diet OR dietary OR diets OR nutrition OR nutritional OR dietary(w)restriction?? OR dietary(n3)guideline??
12. s intervention??/ti,ab OR gluten(w)free(w)food?/ti,ab
13. c 11 OR 12
14. c 10 AND 13
15. s health behavior/de OR illness behavior/de OR adaptive behavior/de OR behavior modification/de
16. s quality of life/de OR coping(w)behavior/ti,ab OR adjustment??/ti,ab,de OR decision making/de OR early(w)intervention/ti,ab,de OR compliance/ti,ab OR adherence/ti,ab OR motivation/ti,ab,de OR coping behavior/de OR coping/ti,ab
17. s psychosocial(n3)aspect?? OR habit??/ti,ab,de OR attitude??/ti,ab,de OR counsel?/ti,ab,de OR psycholog?/ti,ab,de
18. c 15 OR 16 OR 17
19. c 14 AND 18
20. s s19/human
21. s s20/eng

#### Sociological Abstracts at CAB

Limits set to English

1. celiac (KW) OR celiacs (KW) OR coeliac (KW) OR coeliacs (KW)
2. wheat (KW) OR food (DE) OR foods (kw) OR gluten\* (KW) OR gliadin\*
3. allergy (KW) OR allergies (KW) OR hypersensitive\* (KW) OR intoleran\* (KW) OR sensitive\* (KW)
4. feeding practices (DE) OR feeding (DE)
5. diet (DE) OR nutrition (DE)
6. diet (KW) OR diets(KW) OR nutrition (KW)OR nutritional (KW)
7. 2 AND 3
8. 4 OR 5 OR 6
9. 1 AND 8
10. 7 AND 8
11. 9 OR 10

# Appendix C. Data Assessment and Data Abstraction Forms

## Data Assessment Forms

### Level 1 Screening

#### Objective 1:

1. Does this refer to determining the sensitivity or specificity of one of the following tests for celiac disease? (biopsy, anti-htTG, anti-endomysial, anti-gliadin antibody, anti-gliadin antibody, HLA DQ2/DQ8).
  - a. This citation refers to another objective and should be moved or copied
  - b. **No** (move on to next citation)
  - c. **Yes**
  - d. Can't tell

#### Objective 2:

1. Does this refer to the prevalence or incidence of **celiac disease**?
  - a. This citation refers to another objective and should be moved or copied
  - b. **No** (move on to next citation)
  - c. **Yes**
  - d. Can't tell

#### Objective 3:

1. Does this refer to an association between **celiac and GI lymphoma**?
  - a. This citation refers to another objective and should be moved or copied
  - b. **No** (move on to next citation)
  - c. **Yes**
  - d. Can't tell

#### Objective 4:

1. Does this refer to expected consequences of testing for celiac disease?
  - a. This citation refers to another objective and should be moved or copied
  - b. **No** (move on to next citation)
  - c. **Yes**
  - d. Can't tell

### Objective 5:

1. Does this refer to identifying or assessing interventions for promoting or monitoring adherence to a gluten free diet?
  - a. This citation refers to another objective and should be moved or copied
  - b. **No** (move on to next citation)
  - c. **Yes**
  - d. Can't tell

## Level 2 Screening

### Objective 1:

1. Does this refer **specifically** to determining the sensitivity or specificity of one of the identified tests for celiac disease? **Note: for biopsy and HLA**, we may not see sensitivity or specificity – keep if you can get data on use as diagnostic test or accuracy as a test or if it distinguishes celiac from other diseases etc.
  - a. **Yes**. If this citation also refers to another objective(s), please state objective number(s):
  - b. **No**. If this citation refers to another objective(s), please state objective number(s): (move on to next citation)
2. Is this a review article?
  - a. Yes (keep for references)
  - b. No
3. What is the test(s) being studied? (Note: we are not interested in any other type of test!)
  - a. Biopsy
  - b. Anti-htTG
  - c. Anti-endomysial antibody (EMA)
  - d. Anti-gliadin antibody (AGA)
  - e. HLA DQ2/DQ8 (note: we are not interested in pathophysiology does the article give data using HLA to distinguish celiac from non celiac)
  - f. If none of above then – reject citation
4. What is the “gold standard” the test(s) is compared to?
  - a. Biopsy
  - b. Anti-htTG
  - c. Anti-endomysial antibody (EMA)
  - d. Anti-gliadin antibody (AGA)
  - e. HLA DQ2/DQ8
  - f. Other (list in box)
5. What is the patient population?
  - a. Adults

- b. Paediatric
- c. General unselected
- d. Specific ethnic groups (fill in box)
- e. Patients with suspected celiac (symptomatic)
- f. Patients at risk of celiac disease (asymptomatic - relatives of celiac, diabetes, Fe Diff, infertility, osteoporosis, short stature)
- g. Other (fill in box)

**Objective 2:**

1. Does this refer **specifically** to the prevalence or incidence of **celiac disease**?  
Please remember we are only really interested in the incidence / prevalence of celiac in population X or disease X **NOT** vice verse.
  - a. **Yes.**
  - b. **No. Exclude**
  - c. **No.** But this refers to an association between celiac and another disease to state in background /discussion
  
2. Is this a review article?
  - a. Yes (keep for references)
  - b. No
  
3. Does the prevalence or incidence refer to:
  - a. Classical celiac
  - b. Atypical celiac (i.e., Fe diff, infertility, short stature, osteoporosis)
  - c. Asymptomatic celiac
  - d. Other or (fill in box)
  
4. What is the patient population that was tested?
  - a. Unselected – general population (e.g., blood donors, routine physical etc)
  - b. Patients with suspected celiac
  - c. Relatives of celiac patients
  - d. Iron deficiency
  - e. Osteoporosis
  - f. Short stature
  - g. Infertility
  - h. Other (fill in box)
  
5. What was the screening test(s) used?
  - a. Biopsy
  - b. Anti-htTG
  - c. Anti-endomysial antibody (EMA)
  - d. Anti-gliadin antibody (AGA)
  - e. HLA DQ2/DQ8
  - f. Other (fill in box)

6. What is the country/region of origin of the study (fill in box)?

**Objective 3:**

1. Does this refer **specifically** to an association between **celiac and GI lymphoma**?
  - a. **Yes.**
  - b. **No. Exclude**
2. Is this a review article?
  - a. Yes (keep for references)
  - b. No
3. Does this give **data** on the risk of developing GI lymphoma in celiac?
  - a. Yes
  - b. No
4. What is the country/region of origin of the study? (fill in box)
5. What celiac population was evaluated?
  - a. Classical celiac
  - b. Atypical celiac (i.e., fe dif, infertility, short stature, osteoporosis)
  - c. Asymptomatic celiac
  - d. Other (fill in box)

**Objective 4:**

1. Does this refer **specifically** to expected **consequences of testing for celiac disease**?
  - a. **Yes.**
  - b. **No. Exclude**
2. Is this a review article?
  - a. Yes (keep for references)
  - b. No
3. What consequences were assessed:
  - a. False-positive results
  - b. Follow-up testing
  - c. Invasive procedures (biopsy)
  - d. Costs
  - e. Cases diagnosed
  - f. Patients complying with treatment
  - g. Response to treatment
  - h. Clinical outcome (reduced risk of complication etc)
  - i. Other (fill in box)

4. What is the country/region of origin of the study? (fill in box)
5. What is the patient population that was tested?
  - a. Unselected – general population (e.g., blood donors, routine physical, etc.)
  - b. Patients with symptoms suggestive of celiac.
  - c. Asymptomatic at risk populations (relatives of celiac patients, iron deficiency, osteoporosis, infertility short, stature)
  - d. Other (fill in box).

### Objective 5:

1. Does this **specifically** refer to identifying or assessing an intervention(s) for promoting or monitoring adherence to a gluten free diet?
  - a. **Yes.**
  - b. **No. Exclude**
2. Is this a review article?
  - a. Yes (keep for references)
  - b. No
3. Does this refer to:
  - a. Promoting adherence
  - b. Monitoring adherence
  - c. Both
4. What intervention was assessed? (If **monitoring adherence**)
  - a. Biopsy
  - b. Antibody testing
5. What intervention was used? (If **promoting adherence**) – fill in box

## Level 3 Screening

### Celiac 1: Sensitivity and specificity of screening tests:

Inclusion criteria: (a **No** answer to any of the below excludes the article)

1. For serology - the study publication date is 1990 or more recent (biopsy studies can be earlier)
  - a. Yes (include)
  - b. No (exclude)
2. For AGA - the studies uses a standardized commercial ELISA kit (or this study is testing such a kit or technique)
  - a. Yes (include)
  - b. No (exclude)

3. For EMA – the substrate is monkey esophagus or human umbilical cord
  - a. Yes (include)
  - b. No (exclude)
  
4. For tTG – study uses ELISA with the substrate for tTG being guinea pig or human recombinant tTG.
  - a. Yes (include)
  - b. No (exclude)
  
5. For any serology and HLA studies – the control group(s) are appropriate and controls evaluated with the reference test (i.e., biopsy)?
  - a. Yes (include)
  - b. No (exclude)
  
6. The paper allows for the extraction of the sensitivity or specificity of the test in question (AGA, EMA, tTG, HLA DQ2/8, biopsy)?
  - a. Yes (include)
  - b. No (exclude)
  
7. Was the diagnosis of celiac disease appropriate in the celiac disease group
  - a. Yes (include)
  - b. No (exclude)

## **Celiac 2: Prevalence and incidence of celiac disease:**

Inclusion Criteria: (a **No** answer to any of the below excludes the article)

1. The country of origin must be **Western Europe, North America, Australia, New Zealand**.
  - a. Yes (include)
  - b. No (exclude)
2. The publication date was  $\geq 1990$  if serology was used to screen (but can be earlier for biopsy)
  - a. Yes (include)
  - b. No (exclude)
3. The screening test was biopsy, standardized ELISA AGA, EMA (monkey esophagus or human umbilical cord), tTG (guinea pig, or human recombinant)
  - a. Yes (include)
  - b. No (exclude)
4. The screened population must belong to one of these groups:
  - a. Unselected – General population (e.g. Blood donors, routine physical etc)
  - b. Patients with suspected celiac
  - c. Relatives of celiac patients
  - d. Iron deficiency
  - e. Osteoporosis
  - f. Diabetes
  - a. Yes (include)
  - b. No (exclude)

### **Celiac 3: Prevalence/incidence of lymphoma in celiac disease**

1. Does this study specifically give the **incidence, prevalence** or a **measure of risk** of GI lymphoma (Includes malignant histiocytosis) in a population of celiac patients? (Note: we are not interested in other cancers, and we are not interested in how many lymphoma patients have celiac disease)

OR

Does this study discuss ulcerative jejuno-ileitis or refractory sprue as a precursor or marker for GI lymphoma in patients with celiac disease?

- a. Yes (include lymphoma)
- b. Yes (include jejuno-ileitis/refractory sprue)
- c. No (exclude)

### **Celiac 4: Consequences of testing for celiac disease**

1. Does this paper report a consequence of testing for celiac listed below: (note: false positive, and negative results, follow-up testing and need for invasive testing is obtained from Celiac 1 objective)
  - a. **Costs**
  - b. Patients complying with treatment
  - c. **Response to treatment** – i.e., **clinical outcome** (reduced risk of complication – osteoporosis, lymphoma, anemia, symptoms)
    - i. Yes (include)
    - ii. No (exclude)
2. Did the population include one of the following (note: nothing more than listed):
  - a. Patients with symptoms suggestive of celiac disease
  - b. Asymptomatic, at-risk populations (affected family members, patients with type 1 diabetes, osteoporosis, Fe Diff)
  - c. General population
    - i. Yes (include)
    - ii. No (exclude)

**Note:** a **No** to either question excludes the study

## **Celiac 5: Monitoring or promoting adherence to a GFD**

### **If a monitoring question:**

Does this paper report monitoring adherence based on **serology** (standardized ELISA **AGA publication date >= 1990**, **EMA** (monkey esophagus or human umbilical cord), **tTG** (guinea pig, or human recombinant) or **biopsy**?

**Note:** If this is a study of sensitivity or specificity – it must include actual extractable follow-up data (like drop in titre or improvement in biopsy)

OR

### **If a promoting adherence question:**

Does this paper report on an intervention that was used to promote adherence to Gluten free diet?

- a. Yes (include promoting)
- b. Yes (include Monitoring)
- c. No (exclude)

# Data Abstraction Forms

## Celiac 1: Serology

1. Paper #:
2. Title:
3. Author/year:
4. Reference:
5. Reviewer:
  
6. Publication type:
  - a. Journal
  - b. Conference abstract
  - c. Other:
  
7. Is this a duplicate publication (state refid of duplicate):
  
8. Study type:
  - a. Relevant clinical population: (cases and controls defined from the population based on the results of the test under study)
  - b. Case Control: (groups are predefined and may come from different populations):
  - c. Other: (list)
  
9. Country:
  
10. Racial Groups and % if different from country: *list in box*
  
11. Group demographics

	Celiac		Control			
	Group 1	Group 2	group1	group 2	group 3	group 4
Group name						
Age groups						
Mean age						
Age range						
% female						
Gluten intake						

12. Type of population (applies to 8 a): (*from level 2 database*)
  - a. Unselected – general population (e.g., blood donors, routine physical, etc.)
  - b. Patients with suspected celiac
  - c. Relatives of celiac patients
  - d. Diabetes
  - e. Iron deficiency
  - f. Osteoporosis
  - g. Other (fill in box): *not part of extraction – background / discussion only*

13. Case and control group types (applies to 8 b):
- a. Celiac group 1
    - i. Untreated
      - 1. Classic
      - 2. Silent celiac
      - 3. Atypical celiac
      - 4. Other
    - ii. Treated On GFD
    - iii. Refractory (implies on GFD) / ulcerative jejuno-ileitis
    - iv. Other/can't tell: text box
  
  - b. Celiac group 2 – if applicable
    - i. Untreated
      - 1. Classic
      - 2. Silent celiac
      - 3. Atypical celiac
      - 4. Other
    - ii. Treated on GFD
    - iii. Refractory (implies on GFD) / ulcerative jejuno-ileitis
    - iv. Other/can't tell: text box

**Note:** Control groups must have had a negative biopsy otherwise should have been excluded at level 3

- c. Control group 1:
  - i. Unselected – general population (e.g., blood donors, routine physical, etc.)
  - ii. Patients with suspected celiac
  - iii. Relatives of celiac patients
  - iv. Diabetes
  - v. Iron deficiency
  - vi. Osteoporosis
  - vii. Other disease controls
  - viii. Other (fill in box):
  
- d. Control group 2 (if applicable):
  - i. Unselected – general population (e.g., blood donors, routine physical, etc.)
  - ii. Patients with suspected celiac
  - iii. Relatives of celiac patients
  - iv. Diabetes
  - v. Iron deficiency
  - vi. Osteoporosis
  - vii. Other disease controls
  - viii. Other (fill in box):

- e. Control group 3 (if applicable):
  - i. Unselected – general population (e.g., blood donors, routine physical, etc)
  - ii. Patients with suspected celiac
  - iii. Relatives of celiac patients
  - iv. Diabetes
  - v. Iron deficiency
  - vi. Osteoporosis
  - vii. Other disease controls
  - viii. Other (fill in box):

- f. Control group 4 (if applicable):
  - i. Unselected – general population (e.g., blood donors, routine physical, etc.)
  - ii. Patients with suspected celiac
  - iii. Relatives of celiac patients
  - iv. Diabetes
  - v. Iron deficiency
  - vi. Osteoporosis
  - vii. Other disease controls
  - viii. Other (fill in box):

14. Reference test(s) for cases (i.e., how was celiac diagnosed):

- a. Biopsy (required):
  - i. endoscopic
  - ii. capsule
    - 1. list type: text box
  - iii. how many samples taken (text box)
- b. Serology (check as many as applicable)
  - i. AGA (date >1990)
  - ii. EMA
  - iii. tTG
- c. Comments:

15. What test was conducted first

- a. Biopsy
- b. Serology
- c. Simultaneous
- d. Mixed
- e. Unsure/other: comment in box

16. Reference test for control (s)      1-----2-----3-----4

- a. Include biopsy (required)
- b. Otherwise excluded

17. Detail biopsy criteria used to define celiac (ESPGAN, Marsh, Rostami) and state what grades were used (i.e., Marsh I and above? etc.)

18. Was IgA deficiency assessed (if applicable):

- a. Yes
- b. No
- c. N/A
- d. Comments: text box)

19. Overall number:

20. Number of:

- a. Cases 1
- b. Cases 2 (if applicable):
- c. Control group 1:
- d. Control group 2 (if applicable):
- e. Control group 3 (if applicable):
- f. Control group 4 (if applicable):

21. Intervention: (**may be up to 8+ tests studied – distinguish IgG from IgA**)

Test name	Methodology	Cut-off (criteria)	Group	Results (4x4 table)			
				a	b	c	d

22. Stated results if raw data not given:

Test name	Sensitivity	Specificity	PPV	NPV	Prevalence

23. Comments regarding study: test box

Notes for reference:

Test name can be:

- 1) Anti-htTG
- 2) Anti-endomysial antibody (EMA)
- 3) Anti-gliadin antibody (AGA)

		BIOPSY (gold standard)	
		positive	negative
TEST: _____	positive	a	b
	negative	c	d

Calculate automatically

- Prevalence:  $(a+c)/(a+b+c+d)$
- Sensitivity:  $a/(a+c)$ ;
- Specificity:  $d/(b+d)$ ;
- PPV:  $a/(a+b)$
- NPV:  $d/(c+d)$

## Celiac 1: HLA

1. Paper #:
2. Title:
3. Author/year:
4. Reference:
5. Reviewer:
  
6. Publication type:
  - a. Journal
  - b. Conference abstract
  - c. Other:
  
7. Is this a duplicate publication (state refid of duplicate):
  
8. Country:
  
9. Racial groups and % if different from country: *list in box*
  
10. Age groups (ped, adult, both):

11. Mean age:
12. Range of age:
13. Percent female:
14. Study type:
  - d. Relevant clinical population: (cases and controls defined from the population based on the results of the test under study)
  - e. Case control: (groups are predefined and may come from different populations:
  - f. Cross-sectional screening study
  - g. Other: (list)
15. Type of population (applies to 14 a, c):
  - a. Unselected – general population (e.g., blood donors, routine physical etc)
  - b. Patients with suspected celiac
  - c. Relatives of celiac patients
  - d. Diabetes
  - e. Iron deficiency
  - f. Osteoporosis
  - g. Other (fill in box): *not part of extraction – background / discussion only*
16. Case and control group types (applies to 14b):
  - h. Celiac group 1
    - i. Untreated
      1. Classic
      2. Silent celiac
      3. Atypical celiac
      4. Other
    - ii. Treated on GFD
    - iii. Refractory (implies on GFD) / ulcerative jejuno-ileitis
    - iv. Other/can't tell: text box Celiac group 2
  - i. Celiac group 2 – if applicable
    - i. Untreated
      1. Classic
      2. Silent celiac
      3. Atypical celiac
      4. Other
    - ii. Treated on GFD
    - iii. Refractory (implies on GFD) / ulcerative jejuno-ileitis
    - iv. Other/can't tell: text box

**Note: Control groups must have had a negative biopsy otherwise should have been excluded at level 3**

- j. Control group 1:
  - i. Unselected – general population (e.g., blood donors, routine physical, etc.)
  - ii. Patients with suspected celiac
  - iii. Relatives of celiac patients
  - iv. Diabetes
  - v. Iron deficiency
  - vi. Osteoporosis
  - vii. Other disease controls
  - viii. Other (fill in box):
  
- k. Control group 2 (if applicable):
  - i. Unselected – general population (e.g., blood donors, routine physical, etc.)
  - ii. Patients with suspected celiac
  - iii. Relatives of celiac patients
  - iv. Diabetes
  - v. Iron deficiency
  - vi. Osteoporosis
  - vii. Other disease controls
  - viii. Other (fill in box):
  
- l. Control group 3 (if applicable):
  - i. Unselected – general population (e.g., blood donors, routine physical, etc.)
  - ii. Patients with suspected celiac
  - iii. Relatives of celiac patients
  - iv. Diabetes
  - v. Iron deficiency
  - vi. Osteoporosis
  - vii. Other disease controls
  - viii. Other (fill in box):
  
- m. Control group 4 (if applicable):
  - i. Unselected – general population (e.g., blood donors, routine physical, etc.)
  - ii. Patients with suspected celiac
  - iii. Relatives of celiac patients
  - iv. Diabetes
  - v. Iron deficiency
  - vi. Osteoporosis
  - vii. Other disease controls
  - viii. Other (fill in box):

17. Reference test for cases

- n. Biopsy:
  - i. endoscopic
  - ii. capsule
    - 1. list type: text box
- o. Serology (check as many as applicable)
  - i. AGA (date >1990)
  - ii. EMA
  - iii. tTG

18. Reference test for control 1-----2-----3-----4

- p. Biopsy
- q. Serology (list)
- r. Can't tell

19. Overall number:

20. Number of:

- s. Cases 1
- t. Cases 2 (if applicable):
- u. Control group 1:
- v. Control group 2 (if applicable):
- w. Control group 3 (if applicable):
- x. Control group 4 (if applicable):

21. HLA tested

Test name	Methodology	Cut-off (criteria)	Group	Results (4x4 table)			
				a	b	c	d

22. Stated results if raw data not given:

Test name	Sensitivity	Specificity	PPV	NPV	Prevalence

23. Narrative result if data not extractable: text box

24. Comments regarding study: text box

## Celiac 2: Prevalence and Incidence of Celiac Disease

1. Paper #:
2. Title:
3. Author/year:
4. Reference:
5. Reviewer:

Patient population:

6. Publication type:
  - a. Journal
  - b. Conference abstract
  - c. Etc (your list)
7. Is this a duplicated: list refid
8. Study type:
  - a. Cross-sectional prevalence
  - b. Cohort
  - c. Case control
  - d. Incidence study
  - e. Other: (list)
9. Country:
10. Racial groups and % if different from country: *list in box*
11. Type of patients screened:
  - a. Unselected – general population (e.g., blood donors, routine physical etc)
  - b. Patients with suspected celiac
  - c. Relatives of celiac patients
  - d. Diabetes
  - e. Iron deficiency
  - f. Osteoporosis
  - g. Other (fill in box): *not part of extraction – background / discussion only*
12. Age groups (ped, adult or both): *from level 2 database*
13. Mean age:
14. Range of age:
15. Percent female:

Intervention:

Test name	Methodology	# screened	Cases detected	Results	
				Incidence (time period)	Prevalence

Note: distinguish IgG from IgA. Also the screen may be single test, or combination of tests. So list each strategy used as a "test name"

16. State control reference and methodology of incidence study: (fill in box)

17. Confirmatory test

- a. None
- b. Biopsy
- c. Other serology
- d. Other: fill in box

18. Was IgA deficiency assessed (if applicable):

- a. Yes
- b. No
- c. N/A
- d. Comments: (text box)

19. Comments about study: text box

## Celiac 3: Lymphoma

1. Paper #:
2. Title:
3. Author/year:
4. Reference:
5. Reviewer:
  
6. Publication type:
  - a. Journal
  - b. Conference abstract
  - c. Etc (your list)
  
7. Study type:
  - a. Cross-sectional prevalence
  - b. Case series
  - c. Cohort
    - i. Prospective
    - ii. Retrospective
  - d. Case control
  - e. Other: (list)
  
8. Country: *from level 2 database*
  
9. Racial groups and % if different from country: *list in box*
  
10. Study population type(s) – this is the population of “lymphoma” in case control **OR** the overall population in a screening/prevalence study and cohort studies: Check multiple if study included different populations
  - a. Classic celiac:
    - 1) Treated celiac
    - 2) Untreated celiac
    - 3) Non-compliant
    - 4) Unclear about treatment
  - b. Asymptomatic (silent celiac)
  - c. Atypical celiac (found on basis of
  - d. Latent celiac (normal histology)
  - e. Refractory celiac
  - f. Ulcerative jejuno-ileitis
  - g. Other celiac complications
  - h. Patients on Immunosuppression:
  - i. Other:
  
11. How were celiac patients identified (text box)

12. How were cases of lymphoma identified? (i.e., registry, administrative database, etc.) text box

13. Group demographics

	Overall population study type a, b, c	Case group	Control group
Age groups			
Mean age			
Age range			
% female			
Disease duration			

14. For **case control** study:

- a. Control population type (those without lymphoma)
  - i. Unselected general population
  - ii. Other disease controls: state disease(s)
  - iii. A celiac population
    - 1. Classic celiac:
      - a. Treated celiac
      - b. Untreated celiac
      - c. Non-compliant
      - d. Unclear about treatment
    - 2. Asymptomatic (silent celiac)
    - 3. Atypical celiac (found on basis of
    - 4. Latent celiac (normal histology)
    - 5. Refractory celiac
    - 6. Ulcerative jejuno-ileitis
    - 7. Other celiac complications
  - iv. Patients on immunosuppression:
- b. # of cases:
- c. # of controls:
- d. Risk factor used to calculate odds ratio
  - i. Celiac itself
    - 1. classic
    - 2. refractory
    - 3. ulcerative jejuno-ileitis
  - ii. Compliance with diet
  - iii. Disease duration
  - iv. Other: state in text box
- e. Raw data (if possible)

Table for case control study

Risk factor	Lymphoma present	Lymphoma absent
Present		
Absent		

15. For **cohort study**

- f. Length of F/U of cohort:
- g. Timeline:
  - iii. Prospective cohort
  - iv. Retrospective cohort:
  
- h. Risk factor used to calculate Relative Risk if one population used
  - v. Celiac itself
    - 1. classic
    - 2. atypical
    - 3. silent
    - 4. refractory
    - 5. ulcerative jejuno-ileitis
  - vi. Compliance with diet
  - vii. Disease duration
  - viii. Other: state in text box
  
- i. If a celiac cohort was compared to another population to obtain another risk estimate (i.e., standardized mortality or morbidity ratios). Describe control population.
  - ix. Unselected general population
  - x. Other disease controls: state disease(s)
  - xi. A celiac population
    - 1. Classic celiac:
      - a. Treated celiac
      - b. Untreated celiac
      - c. Non-compliant
      - d. Unclear about treatment
    - 2. Asymptomatic (silent celiac)
    - 3. Atypical celiac (found on basis of
    - 4. Latent celiac (normal histology)
    - 5. Refractory celiac
    - 6. Ulcerative jejuno-ileitis
    - 7. Other celiac complications
  - xii. Patients on immunosuppression
  - xiii. Other: (fill in text box)
  
- j. Overall number in cohort:
  - xiv. Number of cases identified:
- k. Number in control population (if applicable)
  - xv. Number of lymphomas identified
  - xvi. Raw data if available:

16. Table for classic cohort study

Risk factor	Lymphoma present	Lymphoma absent
Present		
Absent		

17. For cross sectional studies: study population in Q #10

- l. Overall number screened:
- m. Number of cases identified:

18. Results (text boxes)

- n. Lymphoma type
- o. Prevalence of lymphoma in celiac:
- p. Incidence of lymphoma in celiac:
- q. Odds ratio (95% confidence interval)
- r. Relative risk (95% confidence interval):
- s. Standardized mortality ratio
- t. Standardized morbidity ratio
- u. Other risk estimate:

19. Study comments:

## Celiac 4: Consequences of Testing

1. Paper #:
2. Title:
3. Author/year:
4. Reference:
5. Reviewer:

Patient population:

6. Publication type:
  - a. Journal
  - b. Conference abstract
  - c. Etc (your list)
7. Study type:
  - a. Diagnostic test
  - b. Cross-sectional prevalence
  - c. Cohort
  - d. Case control
  - e. Other: (list)
8. Country: *from level 2 database*
9. Racial groups and % if different from country: *list in box*
10. Type of patients tested (*from level 2 database*)
  - a. Unselected – general population (e.g., blood donors, routine physical, etc.)
  - b. Patients with suspected celiac
  - c. Relatives of celiac patients
  - d. Diabetes
  - e. Iron deficiency
  - f. Osteoporosis
  - g. Other (fill in box):
11. Type of celiac patients identified:
  - a. Classic celiac
  - b. Asymptomatic
  - c. Atypical celiac
    - i. Fe deficiency
    - ii. Osteoporosis
    - iii. Other
  - d. Complicated celiac
    - i. Refractory
    - ii. Jejuno-ileitis
    - iii. Lymphoma)

e. Other

12. Intervention:

- a. Test(s) used to identify celiac patients:
  - i. Biopsy
  - ii. AGA ELISA (publication date >1990)
  - iii. AMA
  - iv. tTG:

13. Was IgA deficiency assessed (if applicable):

- a. Yes
- b. No
- c. N/A
- d. Comments: text box)

14. Length of F/U:

15. How were patients followed (if applicable): test box

16. Outcomes:

<b>Outcome</b>	<b>Result</b>	<b>Notes</b>
Costs		
Cases diagnosed		
Patients complying with treatment		
Response to treatment		
Clinical outcome (reduced risk of complication, etc)		
Other (fill in box)		

17. Comments regarding study: Fill in text box

## Celiac 5: Promoting and Monitoring Adherence to Gluten-Free Diet

1. Paper #:
2. Title:
3. Author/year:
4. Reference:
5. Reviewer:

Patient population:

6. Publication type:
  - a. Journal
  - b. Conference abstract
  - c. Etc (your list)
7. Study type:
  - a. Diagnostic test
  - b. Cross-sectional prevalence
  - c. Cohort
  - d. Case control
  - e. Other: (list)
8. Country: *from level 2 database*
9. Racial groups and % if different from country: *list in box*
10. Age groups (ped, adult, both): *from level 2 database*
11. Mean age:
12. Range of age:
13. Percent female:
14. Disease duration: state in box
15. Type of celiac studied
  - a. Classic celiac
  - b. Asymptomatic celiac
  - c. Atypical celiac (Fe deficiency, osteoporosis, etc.)
  - d. Refractory celiac
  - e. Ulcerative jejuno-ileitis
  - f. IgA deficient celiac
  - g. Other:
16. Does this refer to:

- a. Promoting adherence
- b. Monitoring adherence
- c. Both

17. What intervention was assessed? (if **monitoring adherence**)

	Result (normalization of biopsy or drop in antibody titres - list result details)
Biopsy	
Antibody testing (state test used)	
Other: _____	

18. Did this study determine the sensitivity/specificity of the intervention during follow-up or with different histologic grades:

- a. No
- b. Yes: detail in text box

19. Was IgA deficiency assessed (if applicable):

- a. Yes
- b. No
- c. N/A
- d. Comments: text box

20. What intervention was used? (if **promoting adherence**) – fill in box

Intervention	Result

Comments about the study: fill in text box

## Appendix D. Quality Assessment Forms

### QUADAS Checklist

Item	Yes	No	Unclear
1. Was the spectrum of patients representative of the patients who will receive the test in practice?			
2. Were selection criteria clearly described?			
3. Is the reference standard likely to correctly classify the target condition?			
4. Is the time period between reference standard and index test short enough to be reasonably sure that the target condition did not change between the two tests?			
5. Did the whole sample or a random selection of the sample, receive verification using a reference standard of diagnosis?			
6. Did patients receive the same reference standard regardless of the index test result?			
7. Was the reference standard independent of the index test (i.e. the index test did not form part of the reference standard)?			
8a. Was the execution of the index test described in sufficient detail to permit replication of the test?			
8b. Was the execution of the reference standard described in sufficient detail to permit its replication?			
9a. Were the index test results interpreted without knowledge of the results of the reference standard?			
9b. Were the reference standard results interpreted without knowledge of the results of the index test?			
10. Were the same clinical data available when test results were interpreted as would be available when the test is used in practice?			
11. Were uninterpretable/ intermediate test results reported?			
12. Were withdrawals from the study explained?			

## Cross-Sectional/Prevalence Study Quality

Item	Yes	No	Unclear
1) Define the source of information (survey, record review)			
2) List inclusion and exclusion criteria for exposed and unexposed subjects (cases and controls) or refer to previous publications			
3) Indicate time period used for identifying patients			
4) Indicate whether or not subjects were consecutive if not population-based			
5) Indicate if evaluators of subjective components of study were masked to other aspects of the status of the participants			
6) Describe any assessments undertaken for quality assurance purposes (e.g., test/retest of primary outcome measurements)			
7) Explain any patient exclusions from analysis			
8) Describe how confounding was assessed and/or controlled.			
9) If applicable, explain how missing data were handled in the analysis			
10) Summarize patient response rates and completeness of data collection			
11) Clarify what follow-up, if any, was expected and the percentage of patients for which incomplete data or follow-up was obtained			

## Newcastle–Ottawa Quality Assessment Scale: Cohort Studies

Note: a study can be awarded a maximum of one star for each numbered item within the selection. A maximum of two stars can be given for comparability and selection.

- 1) Representativeness of the exposed cohort
  - a) truly representative of the average \_\_\_\_\_ (describe) in the community ✪
  - b) somewhat representative of the average \_\_\_\_\_ in the community ✪
  - c) selected group of users e.g. nurses, volunteers
  - d) no description of the derivation of the cohort
- 2) Selection of the non exposed cohort
  - a) drawn from the same community as the exposed cohort ✪
  - b) drawn from a different source
  - c) no description of the derivation of the non exposed cohort
- 3) Ascertainment of exposure
  - a) secure record (e.g. surgical records) ✪
  - b) structured interview ✪
  - c) written self report
  - d) no description
- 4) Demonstration that outcome of interest was not present at start of study
  - a) yes ✪
  - b) no

### Comparability

- 1) Comparability of cohorts on the basis of the design or analysis
  - a) study controls for \_\_\_\_\_ (select the most important factor) ✪
  - b) study controls for any additional factor ✪ (This criteria could be modified to indicate specific control for a second important factor.)

### Outcome

- 1) Assessment of outcome
  - a) independent blind assessment ✪
  - b) record linkage ✪
  - c) self report
  - d) no description
- 2) Was follow-up long enough for outcomes to occur
  - a) yes (select an adequate follow up period for outcome of interest) ✪
  - b) no
- 3) Adequacy of follow up of cohorts
  - a) complete follow up - all subjects accounted for ✪
  - b) subjects lost to follow up unlikely to introduce bias - small number lost - > \_\_\_\_\_ % (select an adequate %) follow up, or description provided of those lost) ✪
  - c) follow up rate < \_\_\_\_\_ % (select an adequate %) and no description of those lost
  - d) no statement

## Newcastle–Ottawa Quality Assessment Scale: Case Control Studies

Note: a study can be awarded a maximum of one star for each numbered item within the selection and exposure categories. A maximum of two stars can be given for comparability.

### Selection

- 1) Is the case definition adequate?
  - a) yes, with independent validation ✱
  - b) yes, e.g. record linkage or based on self reports
  - c) no description
- 2) Representativeness of the cases
  - a) consecutive or obviously representative series of cases ✱
  - b) potential for selection biases or not stated
- 3) Selection of Controls
  - a) community controls ✱
  - b) hospital controls
  - c) no description
- 4) Definition of Controls
  - a) no history of disease (endpoint) ✱
  - b) no description of source

### Comparability

- 1) Comparability of cases and controls on the basis of the design or analysis
  - a) study controls for \_\_\_\_\_ (Select the most important factor.) ✱
  - b) study controls for any additional factor ✱ (This criteria could be modified to indicate specific control for a second important factor.)

### Exposure

- 1) Ascertainment of exposure
  - a) secure record (e.g. surgical records) ✱
  - b) structured interview where blind to case/control status ✱
  - c) interview not blinded to case/control status
  - d) written self report or medical record only
  - e) no description
- 2) Same method of ascertainment for cases and controls
  - a) yes ✱
  - b) no
- 3) Non-Response rate
  - a) same rate for both groups ✱
  - b) non respondents described
  - c) rate different and no designation

# Appendix E. Summary ROC Curves

Summary ROC curves as calculated by the methods of Moses and Shapiro (meta-analysis text). For all figures below, the middle curve is the summary ROC, the other curves are upper and lower 96% CI, and the vertical line is the point where sensitivity = specificity; dots are individual studies

Figure 1. Summary ROC HLA average-risk with 95% CIs

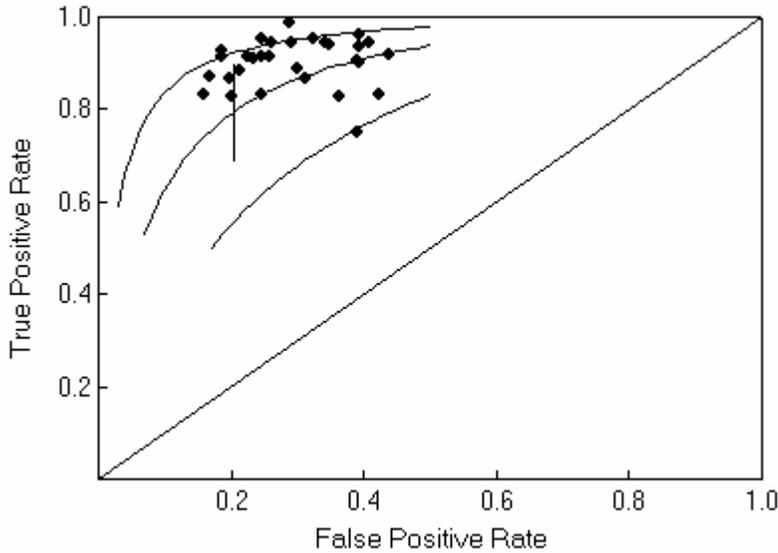
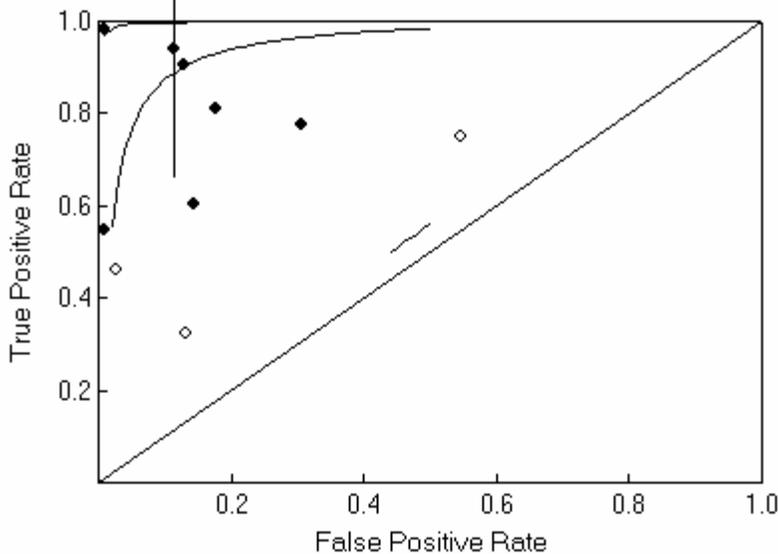
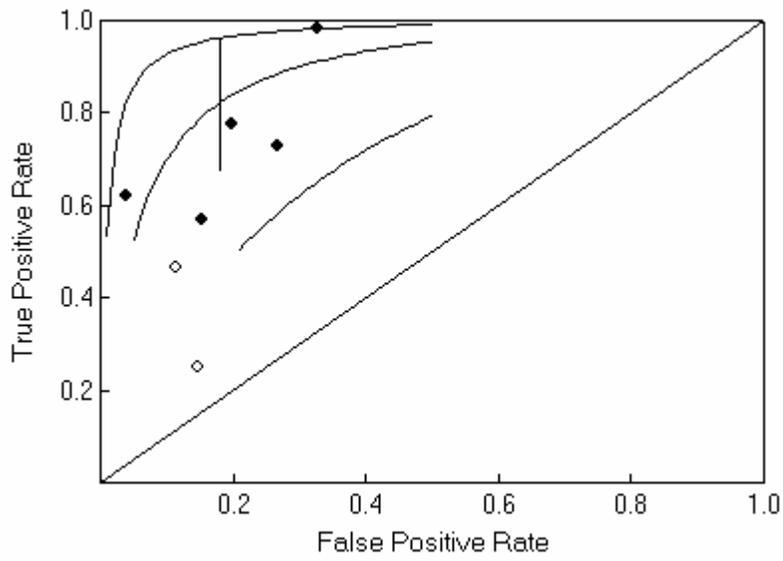


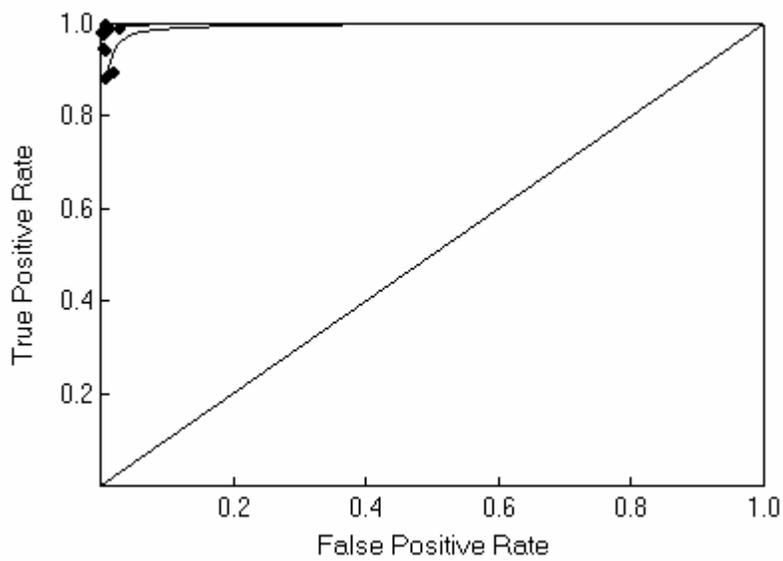
Figure 2. Summary ROC IgA-AGA–adults



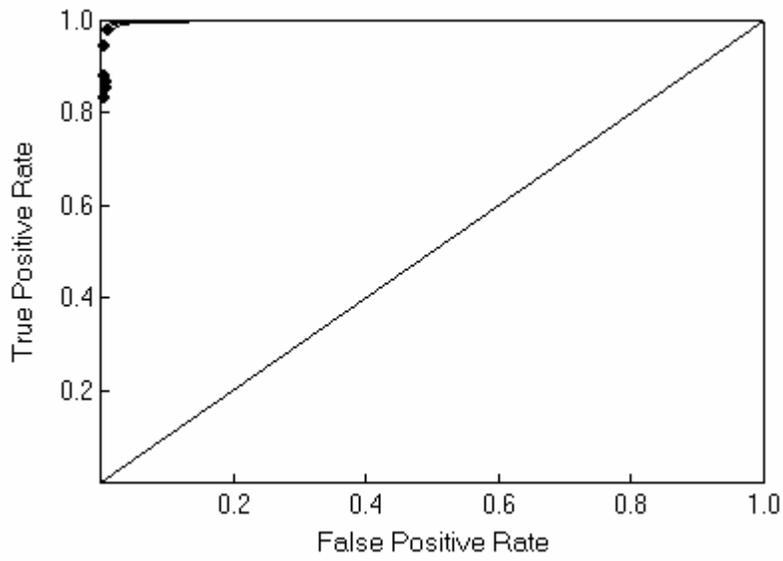
**Figure 3. Summary ROC IgG-AGA-adults**



**Figure 4. Summary ROC IgA-EMA-EM-adults**



**Figure 5. Summary ROC IgA-EMA-HU-adults**



**Figure 6. Summary ROC IgA-tTG-GP-adults**

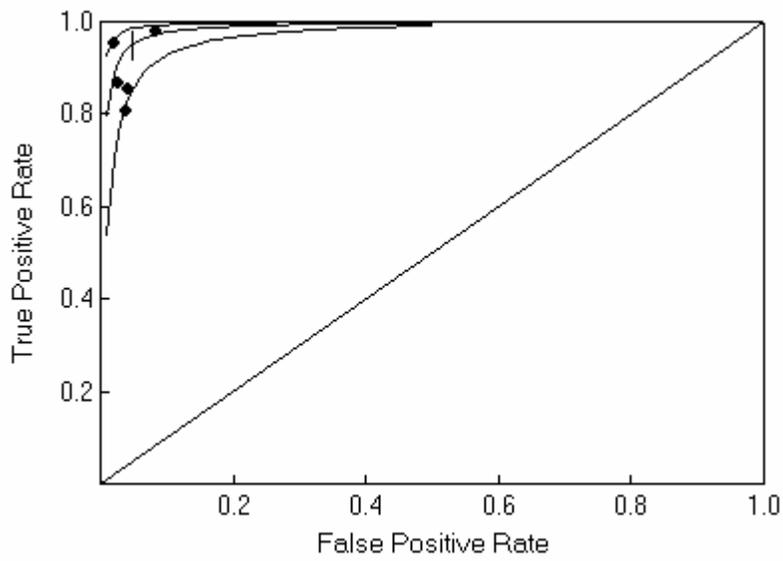


Figure 7. Summary ROC IgA-tTG-HR-adults

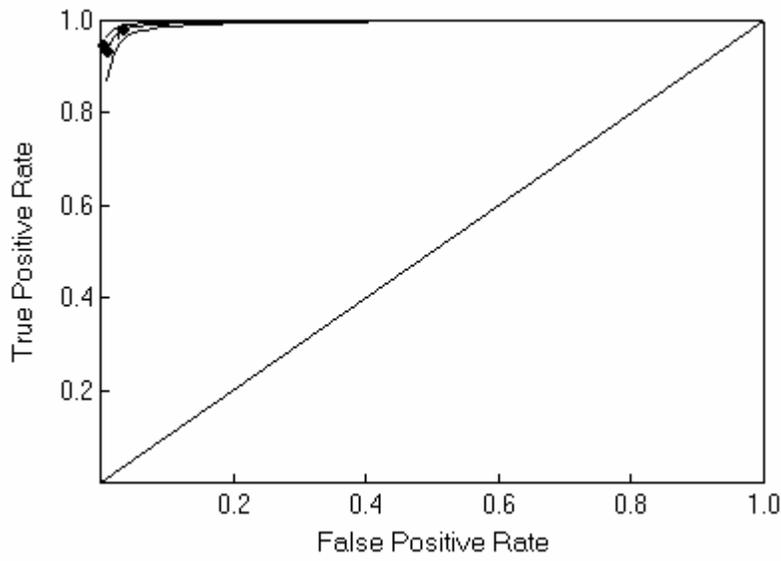
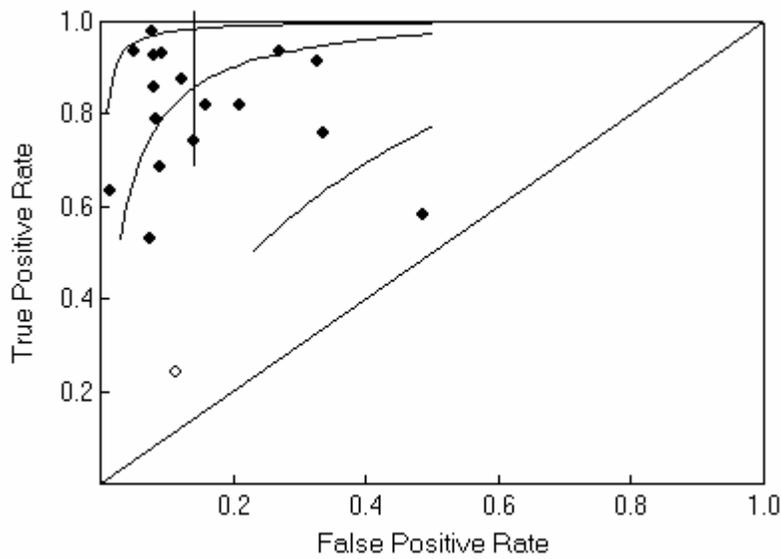
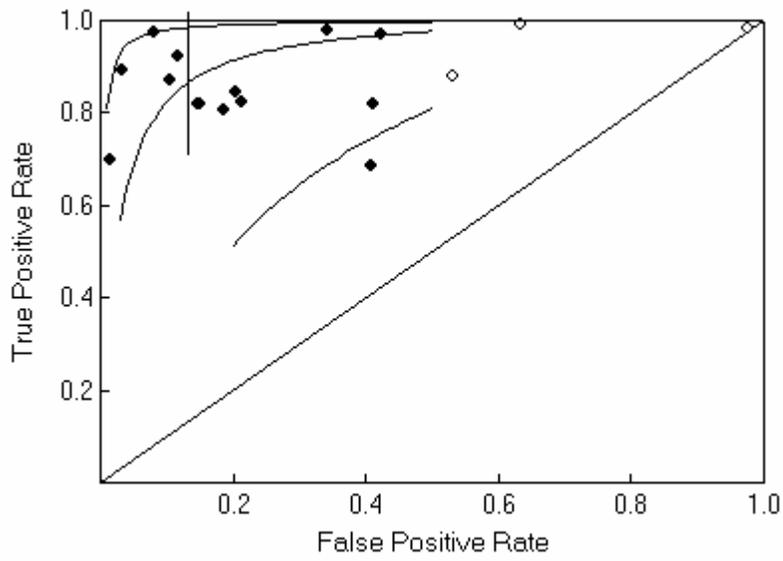


Figure 8. Summary ROC IgA-AGA-child



**Figure 9. Summary ROC IgG-AGA-child**



**Figure 10. Summary ROC IgA-EMA-ME-child**

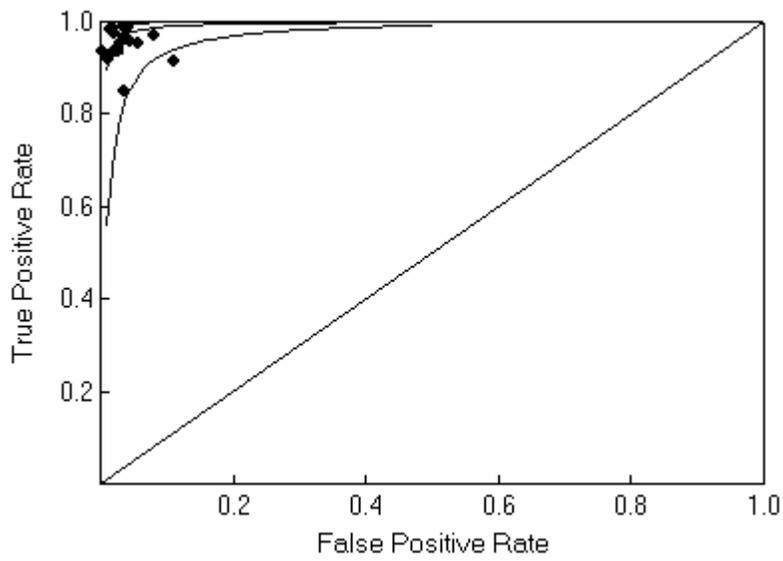


Figure 11. Summary ROC IgA-EMA-HU-child

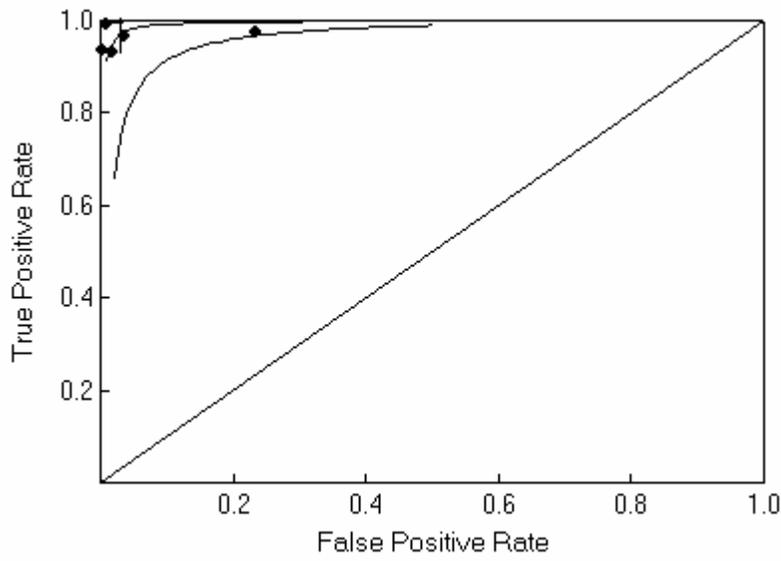
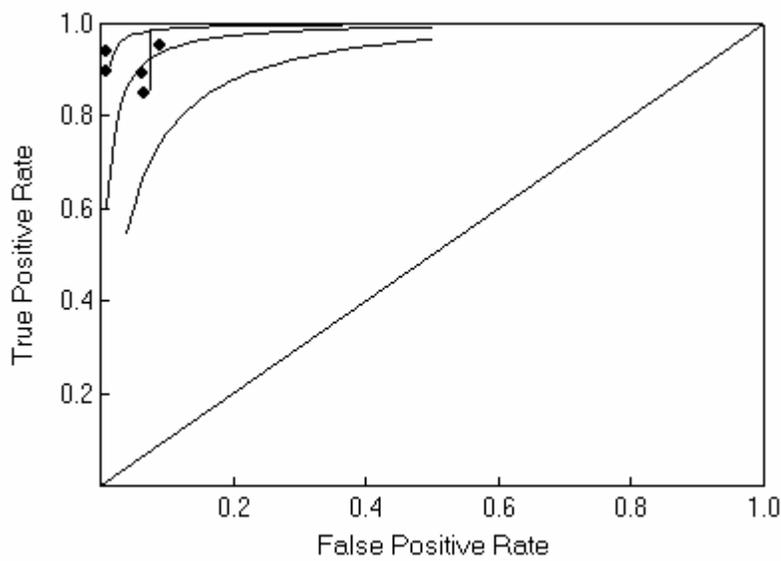
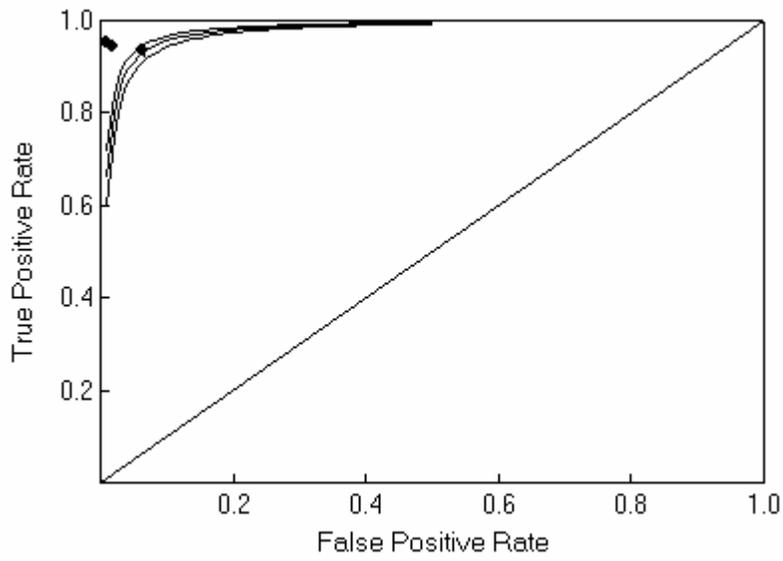


Figure 12. Summary ROC IgA-tTG-GP-child



**Figure 13. Summary ROC IgA-tTG-HR-child**



**Figure 14. Summary ROC IgA-AGA-mixed-age populations**

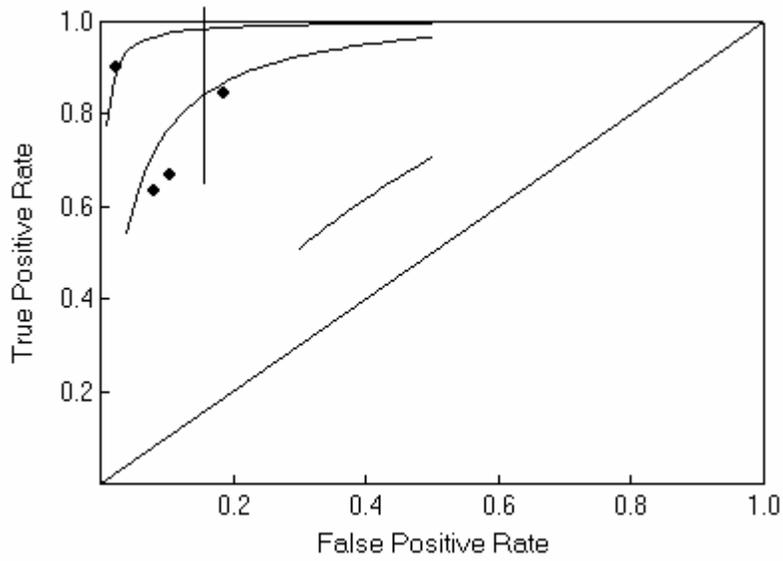


Figure 15. Summary ROC IgG-AGA-mixed-age populations

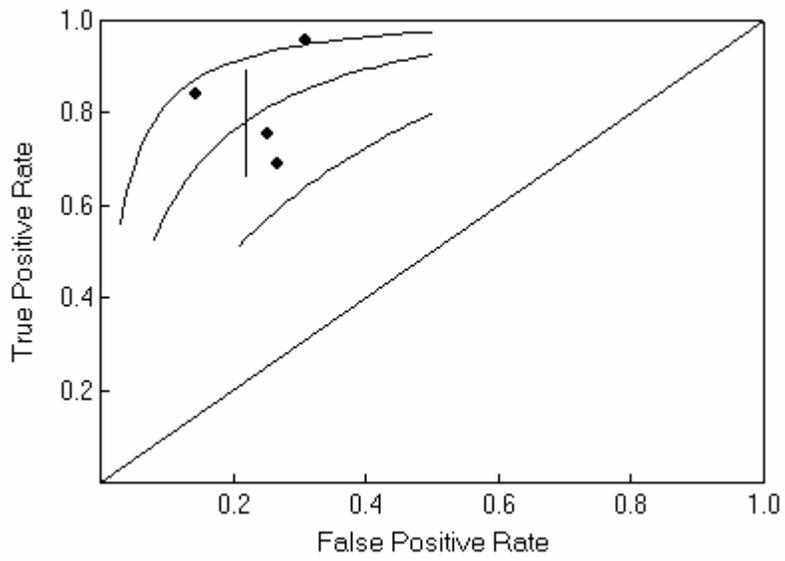


Figure 16. Summary ROC IgA-EMA-ME-mixed-age populations

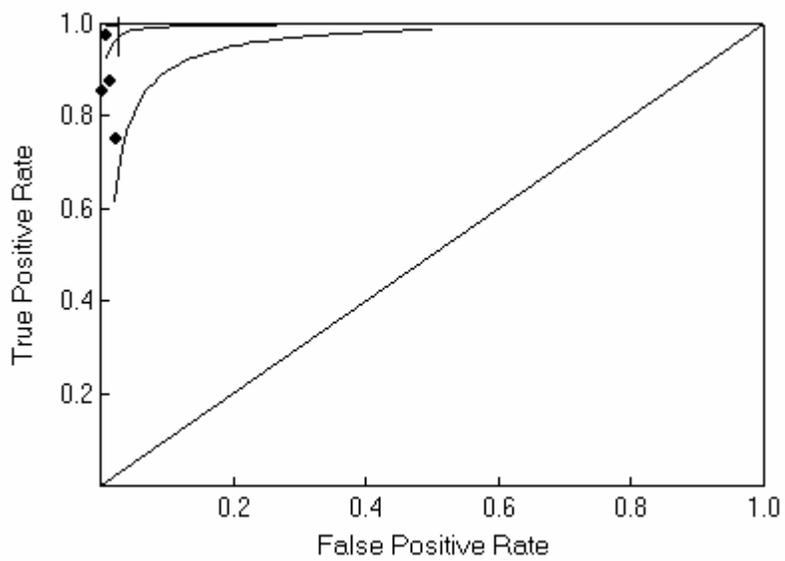
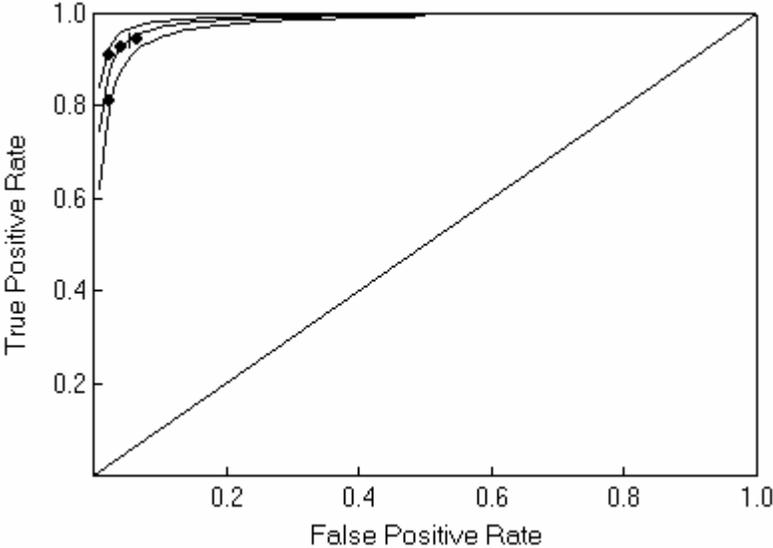


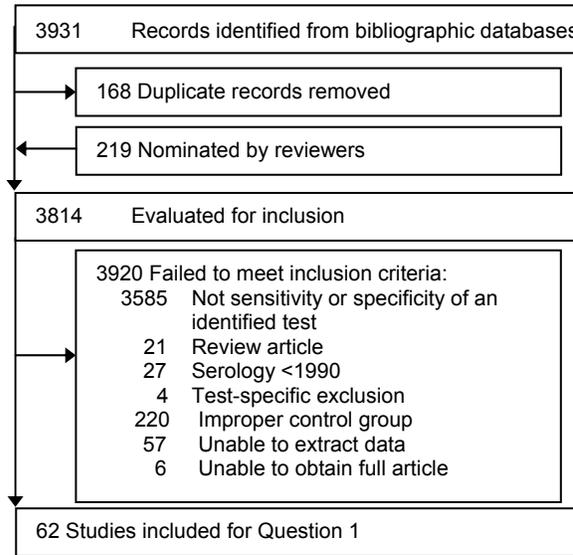
Figure 17. Summary ROC IgA-tTG-GP-mixed-age populations



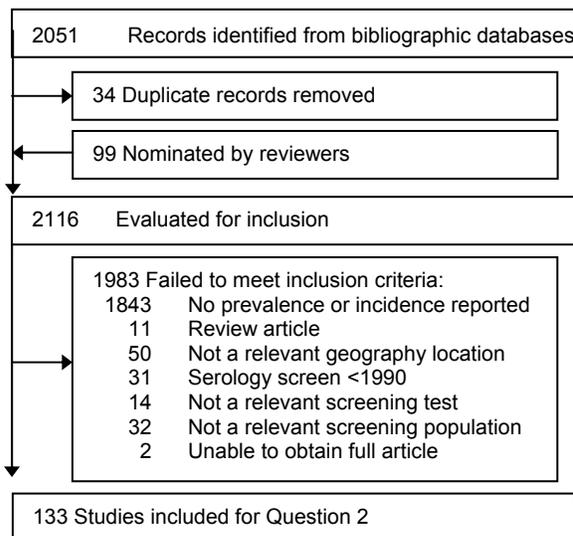
# Appendix F. Modified QUOROM Flow Chart

## Modified QUOROM Flow Charts

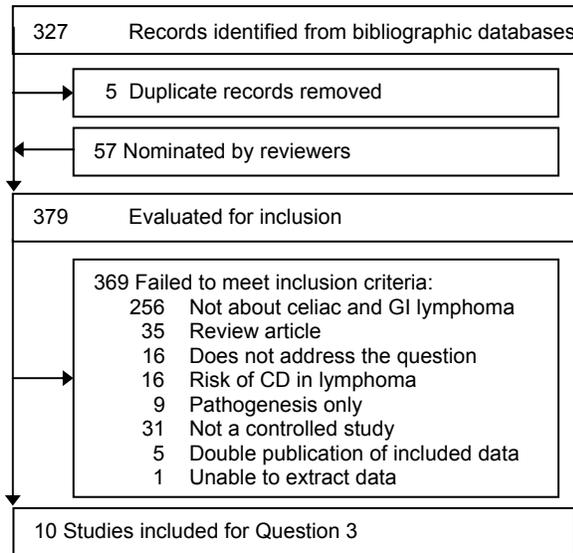
### Objective 1 – Sensitivity and Specificity of Tests for CD



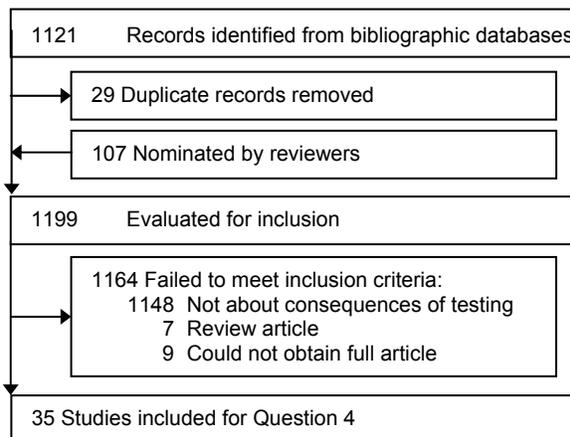
### Objective 2 – Prevalence and Incidence of CD



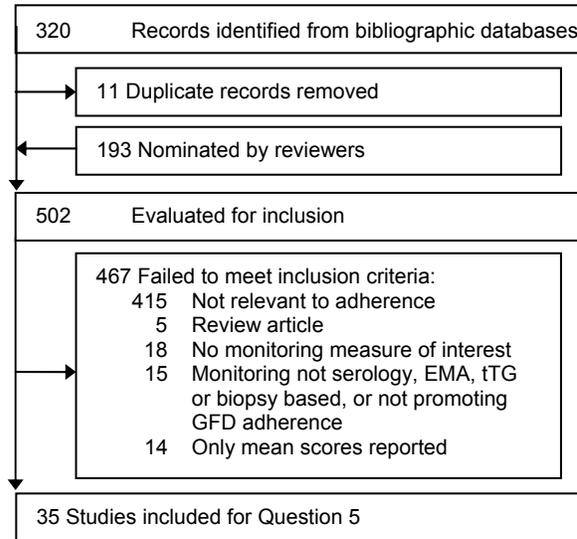
### Objective 3 – Celiac Associated Lymphoma



### Objective 4 – Expected Consequences of Testing for CD



## Objective 5 – Promoting or Monitoring Adherence to a GFD



## Appendix G. Raw Pooled Data

All raw pooled data by antibody test and study types showing number of studies and total patient numbers.

AGA - ELISA														
Population	Pooled Number		IgA					Pooled Number		IgG				
	Studies	Patients	Sens	Spec	PPV	NPV	Prev	Studies	Patients	Sens	Spec	PPV	NPV	Prev
Case Control														
Adults	2	336	57.9	92.6	93.2	55.7	0.40	1	157	78.0	80.7	87.6	67.6	56.7
Children	5	412	76.6	79.9	81.1	75.2	0.5	5	412	84.4	60.3	70.5	77.5	0.5
Both	1	343	84.6	81.6	75.2	88.9	0.4	1	343	69.1	73.4	63.1	78.4	0.4
Relevant CP														
Adults	8	946	71.0	81.1	61.7	86.8	0.35	6	652	65.6	85.7	70.7	82.7	31.9
Children	14	1382	80.1	89.9	78.7	90.7	0.3	12	1189	89.3	83.6	68.1	95.2	0.3
Both	3	737	68.2	92.7	91.5	71.5	0.5	3	737	83.8	79.5	82.6	80.9	0.5

EMA – Monkey Esophagus IF														
Study Population	Pooled Number		IgA					Pooled Number		IgG				
	Studies	Patients	Sens	Spec	PPV	NPV	Prev	Studies	Patients	Sens	Spec	PPV	NPV	Prev
Case Control														
Adults	6	706	97.3	100.0	100.0	97.1	50.7	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Children	12	1038	96.5	98.7	98.6	96.6	0.5	1*	153	100	100	100	100	0.1
Both	1	131	75.3	98.3	98.2	76.0	0.6	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Relevant CP														
Adults	5	692	95.0	99.4	98.1	98.5	22.4	1	89	39.3	98.4	91.7	77.9	0.14
Children	6	868	93.2	95.4	88.3	97.4	0.3	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Both	3	737	87.9	99.7	99.7	87.6	0.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Note: \*this study was conducted in CD patients known to be IgA-EMA negative, and 50% had IgA deficiency

EMA – Human Umbilical Cord - IF														
Population	Pooled Number		IgA					Pooled Number		IgG				
	Studies	Patients	Sens	Spec	PPV	NPV	Prev	Studies	Patients	Sens	Spec	PPV	NPV	Prev
Case Control														
Adults	5	578	90.3	100.0	100.0	93.7	37.2	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Children	4	375	96.6	100.0	100.0	97.1	0.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Both	2	428	92.5	99.6	99.5	93.8	0.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Relevant CP														
Adults	1	92	87.5	100.0	100.0	98.8	7.6	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Children	2	172	70.5	86.7	64.6	89.5	0.3	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Both	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

tTG - Guinea Pig Liver - ELISA														
Population	Pooled Number		IgA					Pooled Number		IgG				
	Studies	Patients	Sens	Spec	PPV	NPV	Prev	Studies	Patients	Sens	Spec	PPV	NPV	Prev
Case Control														
Adults	3	368	83.4	97.1	97.0	84.2	45.1	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Children	3	270	92.3	99.2	99.2	92.0	0.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Both	3	559	91.2	94.7	94.3	91.8	0.5	1	85	61.5	100.0	100.0	44.4	0.8
Relevant CP														
Adults	2	327	100.0	94.2	66.7	100.0	15.6	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Children	2	176	95.1	93.0	87.9	97.3	0.3	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Both	1	111	91.7	98.4	97.8	93.9	0.4	1	111	22.9	98.4	91.7	62.6	0.4

tTG – Human Recombinant - ELISA														
Population	Pooled Number		IgA					Pooled Number		IgG				
	Studies	Patients	Sens	Spec	PPV	NPV	Prev	Studies	Patients	Sens	Spec	PPV	NPV	Prev
Case Control														
Adults	1	63	95.2	100.0	100.0	97.7	31.7	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Children	2	115	95.3	98.0	98.4	94.3	0.6	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Both	1	85	90.8	100.0	100.0	76.9	0.8	1	85	67.7	100.0	100.0	48.8	0.8
Relevant CP														
Adults	2	299	100.0	97.8	84.2	100.0	12.7	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Children	1	101	96.2	100.0	100.0	96.1	0.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Both	1	426	90.0	94.9	96.2	87.0	0.6	n/a	n/a	n/a	n/a	n/a	n/a	n/a

## Appendix H. Biopsy Results

### Relationship of Serology to Histology

CD clearly exists in patients with histological grades milder than Marsh IIIa, and given that the sensitivity of biopsy is improved by using a lower grade as a cut-off, an important question arises—what test is most sensitive for detecting CD with mild histologic changes, biopsy or serology?

Fasano,<sup>1</sup> in a large American prevalence study of CD in at risk and not at risk populations, found that only 34% of biopsied EMA-positive subjects had subtotal or total VA (modified Marsh IIIb or IIIc). In this study, no EMA-positive patient had a Marsh I lesion, 26% of EMA-positive patients had a Marsh II lesion, and 40% had a Marsh IIIa lesion. All newly-diagnosed, EMA-positive CD patients with (n=98) or without (n=114) biopsy had HLA DQ2, DQ8 or both, as apposed to 59% of EMA-negative subjects (n=92). The results of this study once again suggest that applying a criterion of subtotal or total VA would miss 66% of CD patients. The absence of Marsh I lesions in EMA-screened subjects is not surprising (discussed below), given the lower sensitivity of this test in lower-grade histologic lesions of CD, suggesting that the CD may have been unrecognized in some EMA-negative subjects. Unfortunately, HLA was not evaluated in all subjects and assessment of the correlation with serology in the population at large or systematically with biopsy grade was not reported.

Rostami et al.<sup>2</sup> evaluated the diagnostic value of IgA EMA and AGA in 101 untreated CD patients. The diagnosis of CD was made on the basis of “appropriate histopathological features” (Marsh IIIa or greater) and clinical improvement on a gluten-free diet (GFD). Sixteen first-degree relatives with minor histologic abnormalities (Marsh I-II) were used as controls. Sixteen patients were excluded for not meeting diagnostic criteria, IgA deficiency, or undergoing serology while on GFD.

Rostami et al. <sup>2</sup>	Marsh I-II (controls)	Marsh IIIa	Marsh IIIb	Marsh IIIc
Biopsy	16	29 (%)	23 (%)	17 (%)
AGA	3 (21%)	9 (31%)	16 (70%)	14 (82%)
EMA	0	9 (31%)	16 (70%)	17 (100%)

The combination of the two tests showed an overall sensitivity of 76%. Unfortunately, the authors, as is commonly done, considered Marsh I-II as controls; it is unclear if any of these, particularly those who were AGA positive, actually have CD. As will be described below, there is a subset of patients with Marsh I-II who are serology negative who have CD. In any case, this study demonstrates an important finding, i.e., that the sensitivity of the studied serological markers varies with the severity of the histologic grade. Alarmingly, the sensitivity even for CD patients with Marsh IIIa lesions is close to 30%. This is partially at odds with the results of the Fasano study<sup>1</sup> where only 34% of the identified patients were found to have Marsh IIIb or greater

grade lesions, with the rest having grade II to IIIa lesions. In both studies, no EMA-positive Marsh I lesions were found. The Fasano study, being a population-based screening study, obviously did not biopsy all screened patients. This begs the question of how many grade IIIb or less patients with CD were missed based on the findings of Rostami and Tursi (detailed below).

Tursi et al.<sup>3</sup> assessed the relationship of the histologic grade of 119 consecutive adult patients with CD defined by characteristic duodenal biopsy and “permanent gluten-sensitive enteropathy.” The following table summarizes the main findings.

Tursi et al. <sup>3</sup>	Marsh I	Marsh II	Marsh IIIa	Marsh IIIb	Marsh IIIc
Biopsy	13 (11%)	24 (20%)	27 (23%)	31 (26%)	24 (20%)
tTG positive	1 (8%)	8 (33%)	15 (56%)	26 (84%)	23 (96%)
Mean tTG level UA/mL	7.3	18.5	n/a	36	74.95

In this study, 69% of CD patients had VA (Marsh IIIa or greater). The frequency of tTG-positivity (sensitivity) and mean tTG levels were greatest with the highest Marsh grade and dropped steadily with milder histologic grades, reaching a low of only 8%-positivity in CD patients with Marsh I lesions. Since these patients all have “permanent gluten-sensitive enteropathy,” it is clear that tTG would have missed 76% of this cohort of CD patients with Marsh I or II lesions who were picked up by biopsy.

Tursi et al.,<sup>4</sup> also assessed 123 adult patients (possibly the same patients cohort from the above study) with either subclinical (equivalent to atypical in this review) or silent CD. All patients were biopsied and CD was diagnosed on the basis of “permanent-gluten sensitive enteropathy”, and histology was classified with the modified Marsh criteria. The subclinical group included patients with associated CD conditions such as iron deficiency but without GI symptoms, while silent CD patients were asymptomatic patients screened in at risk groups such as first-degree relatives or type 1 diabetes. EMA was positive in 77/96 (80.8%) of subclinical CD cases and 17/27 (63.0%) of silent CD cases. EMA was negative in patients with Marsh I lesions. Once again, assuming that all these patients with “permanent gluten-sensitive enteropathy” are truly CD patients, then EMA would miss 19% of subclinical CD patients, and 37% of silent CD that were picked-up by biopsy.

In what appears to be a partial duplicate publication, Tursi et al.<sup>5</sup> demonstrated similar results with AGA, and EMA in 115 patients with subclinical or silent CD.

**Patients with subclinical CD**

Tursi et al <sup>5</sup>	Marsh I	Marsh II	Marsh IIIa	Marsh IIIb	Marsh IIIc
Biopsy	2	10	18	25	30
AGA pos.	0	3 (30%)	14 (77%)	21 (84%)	27 (90%)
EMA pos	0	4 (40%)	16 (88.9%)	23 (92%)	29 (96.7%)

**Patients with silent CD**

Tursi et al <sup>5</sup>	Marsh I	Marsh II	Marsh IIIa	Marsh IIIb	Marsh IIIc
Biopsy	2	2	5	6	9
AGA pos.	0	0	3 (60%)	4 (66.7%)	7 (77.8%)
EMA pos	0	0	4 (80.0%)	5 (83.3%)	8 (88.9%)

As before, in this group of CD patients, serology would miss patients that would be picked up by biopsy.

Demir et al.<sup>6</sup> (Celiac 4) studied the presentation and clinical features of 104 newly diagnosed Turkish children. EMA and biopsy correlation was available for 72 children. Similar to what was described above, EMA was positive in 92% of children with Marsh III compared with 66.6% of children with Marsh I-II.

Kotze et al.<sup>7,8</sup> assessed 47 symptomatic subjects with CD with intestinal biopsy, tTG and EMA antibodies. Forty were suspected of having CD (9 were children) and the investigations were performed together, while seven were biopsy-diagnosed CD who were already on a GFD. Both EMA and tTG antibodies were negative in these seven patients. The findings of the 40 suspected CD patients are presented in the following table.

Kotze et al <sup>7,8</sup>							
Normal biopsy	7	8	2		1 (child)		
Partial VA			1		1		
Total VA			1	3	7	8 (child)	8
Mean tTG titer	8.14	11.87	41.5	181.7	356.3	307.4	432.8
Mean EMA titer	neg	1/2.5	1/5	1/10	1/20	1/40	1/80

Notes: Titers of EMA and tTg antibodies of 1/2.5 and 20 U, respectively

VA= VA

The authors used an older histology grading system, and did not systematically report on the overall number of “normal biopsies” with raised IELs. They also did not report on the number of subjects with the Marsh II hyperplastic lesion, nor did they distinguish between Marsh IIIa and IIIb (lumped as “partial VA”). Nonetheless, the authors report that in the eight subjects with positive-EMA antibodies (>1/2.5) yet negative for tTG antibodies (<20), the mucosa showed normal villous structure but raised levels of IELs. These eight subjects responded to a GFD and were considered to have CD. The correlation between the two serological tests was high (Pearson’s Chi square [the large R is ‘accountable’ variance];  $r=0.797$ ). However, the same finding as in the previous studies is repeated again. CD occurred in eight patients with negative tTG antibodies, and the titres of both EMA and tTG antibodies correlated with histologic grade, once again suggesting that serology alone would miss CD patients who would be picked-up by biopsy. This is a very recent study and it would shed a great deal of light on the false-positive and negative-rate of biopsy if the authors would publish a follow-up study on: (1) the status of the three subjects who were positive for EMA and tTG antibodies yet had “normal” biopsies (IEL status not reported); (2) the seven subjects who were negative for all tests; and (3) the histologic and clinical response to GFD in those who were diagnosed with CD.

Hoffenberg et al.<sup>9</sup> studied a group of children at risk of CD who were part of a large prospective study of the genetic and environmental factors associated with autoimmune diseases. For the CD portion, newborns were screened for the presence of HLA DR3/3, DR3/4, or DR3/x as markers for DQ2. In another group, at risk children with type I diabetes, first-degree relatives of type 1 diabetics, and first-degree relatives of CD patients, were studied. Thirty anti-tTG positive subjects among these screened patients were enrolled in the study (14 diabetics, 11 first-degree relatives, and five HLA DR3). All 30 children underwent Marsh biopsy grading. No relationship was found between Marsh grade and the genetic risk factor leading to screening. A significant correlation was found between Marsh grade and anti-tTG ( $r=0.57$ ,  $p<0.01$ ). The calculated mean anti-tTG titers are presented in parentheses in the table below.

**Biopsy results of 30 tTG-positive children**

Hoffenberg et al <sup>9</sup>	Marsh 0	Marsh I	Marsh II	Marsh III
Biopsy	5 (16.7%)	4 (13.3%)	2 (6.7%)	19 (63%)
Mean tTG level UA/mL	< 0.6	< 0.6	< 0.6	> 0.6 (0.70)

Unlike the other studies presented in this series, this study selected patients at risk of CD who were anti-tTG positive. Unfortunately, this makes direct comparisons difficult, but in essence this study supports the notion of a greater sensitivity of tTG in high-grade histologic lesions through the finding that high-grade lesions are associated with higher anti-tTG titres.

In a small case control study assessing the diagnostic value of EMA, Sategna-Guidetti,<sup>10</sup> also found that in patients with documented CD, EMA positivity correlated with the severity of the histologic grade. In this study, EMA was falsely negative in 50% of CD patients without VA.

## Other Histological Features

Several other histological features have been studied in an attempt to improve the accuracy of biopsy in the diagnosis of CD. Some of these features include: assessment of small bowel mucosal mast cells,<sup>11-14</sup> mucosal fat,<sup>15</sup> and endocrine cell hyperplasia.<sup>16</sup> Discussion of these features is beyond the scope of this review.

## References

1. Fasano A, Berti I, Gerarduzzi T, Not T, Colletti RB, Drago S, et al. Prevalence of celiac disease in at-risk and not-at-risk groups in the United States: a large multicenter study. *Archives of Internal Medicine* 2003;163(3):286-92.
2. Rostami K, Kerckhaert J, Tiemessen R, von Blomberg BM, Meijer JW, Mulder CJ. Sensitivity of antiendomysium and antigliadin antibodies in untreated celiac disease: disappointing in clinical practice. *American Journal of Gastroenterology* 1999;94(4):888-94.
3. Tursi A, Brandimarte G, Giorgetti GM. Prevalence of antitissue transglutaminase antibodies in different degrees of intestinal damage in celiac disease. *Journal of Clinical Gastroenterology* 2003;36(3):219-21.
4. Tursi A, Brandimarte G, Giorgetti GM. Sorbitol H2-breath test versus anti-endomysium antibodies for the diagnosis of subclinical/silent coeliac disease. *Scand J Gastroenterol* 2001;36(11):1170-2.
5. Tursi A, Brandimarte G, Giorgetti G, Gigliobianco A, Lombardi D, Gasbarrini G. Low prevalence of antigliadin and anti-endomysium antibodies in subclinical/silent celiac disease. *American Journal of Gastroenterology* 2001;96(5):1507-10.
6. Demir H, Yuce A, Kocak N, Ozen H, Gurakan F. Celiac disease in Turkish children: presentation of 104 cases. *Pediatrics International - Official Journal of the Japan Pediatric Society* 2000;42(5):483-7.
7. Kvedar JC, Pion IA, Bilodeau EB, Baden HP, Greco MA. Detection of substrates of keratinocyte transglutaminase in vitro and in vivo using a monoclonal antibody to dansylcadaverine. *Biochemistry* 1992;31(1):49-56.
8. Kotze Lorete Maria da Silva, Utiyama Shirley Ramos da Rosa, Nisihara RM, de C, V, Ioshii SO. IgA class anti-endomysial and anti-tissue transglutaminase antibodies in relation to duodenal mucosa changes in coeliac disease. *Pathology* 2003;35(1):56-60.
9. Hoffenberg EJ, Bao F, Eisenbarth GS, Uhlhorn C, Haas JE, Sokol RJ, et al. Transglutaminase antibodies in children with a genetic risk for celiac disease. *Journal of Pediatrics* 2000;137(3):356-60.

10. Sategna-Guidetti C, Bruno M, Pulitano R, Ferfoggia G. Disease specificity of IgA class anti-endomysium antibodies (IgA-EmA) in adult coeliac disease. *Eur J Gastroenterol Hepatol* 1991;3(3):251-4.
11. Kosnai I, Kuitunen P, Savilahti E, Sipponen P. Mast cells and eosinophils in the jejunal mucosa of patients with intestinal cow's milk allergy and celiac disease of childhood. *Journal of Pediatric Gastroenterology and Nutrition* 1984;3(3):368-72.
12. Strobel S, Busuttil A, Ferguson A. Human intestinal mucosal mast cells: expanded population in untreated coeliac disease. *Gut* 1983;24(3):222-7.
13. Suranyi Y, Freier S, Faber J, Dollberg L. Intestinal mast cells in different stages of celiac disease. *Israel Journal of Medical Sciences* 1986;22(5):370-5.
14. Dollberg L, Gurevitz M, Freier S. Gastrointestinal mast cells in health, and in coeliac disease and other conditions. *Arch Dis Child* 1980;55(9):702-5.
15. Variend S, Placzek M, Raafat F, Walker-Smith JA. Small intestinal mucosal fat in childhood enteropathies. *Journal of Clinical Pathology* 1984;37(4):373-7.
16. Johnston CF, Bell PM, Collins BJ, Shaw C, Love AH, Buchanan KD. Reassessment of enteric endocrine cell hyperplasia in celiac disease. *Hepato-Gastroenterology* 1988;35(6):285-8.

# Appendix I. Evidence Tables

## List of abbreviations used in the evidence tables

Ab=antibody	n=number of patients
AGA=anti-gliadin antibodies	n/a=not applicable
ARA=antireticulin antibodies	NHL=non-Hodgkin's lymphoma
Bx=biopsy	n/r=not reported
CD=celiac disease	OR=odds ratio
CI=confidence interval	pt=patient
CO=control	RR=relative risk
Dx=diagnosis	SD=standard deviation
EGD=esophagogastroduodenoscopy	TGA=anti-thyroglobulin
EIA=enzyme immunoassay	tTG=anti-tissue transglutaminase
EMA=anti-endomysium antibodies	UTCD=untreated celiac disease
F=female	VA=villous atrophy
GC=gluten challenge	y=year
GCD=gluten-containing diet	
GERD=gastroesophageal reflux disease	
GFD=gluten-free diet	
GI=gastrointestinal	
GP=guinea pig	
Hb-hemoglobin	
HLA=human leukocyte antigens	
HU=human umbilical cord	
HUVEC= human umbilical vein endothelial cells	
JAB=human jejunal antibodies	
IBS=irritable bowel syndrome	
IDA=iron deficiency anemia	
IDDM=insulin-dependent diabetes mellitus	
IF=immunofluorescence	
M=male	
ME=monkey esophagus	
mos=months	

# Celiac 1: Sensitivity and Specificity of Tests for CD

## Serology

**Evidence Table 1: Included studies of the sensitivity and specificity of serology for CD**

Author, Year, Location	Study Design	Study Population	Control Population	Results								
				Comparison	4X4 table				Sens	Spec	PPV	NPV
					a	c	b	d				
Altuntas, 1998 Turkey	<b>Publication type:</b> <ul style="list-style-type: none"> <li>• journal</li> </ul> <b>Study design:</b> <ul style="list-style-type: none"> <li>• cohort</li> </ul> <b>Ethnicity:</b> <ul style="list-style-type: none"> <li>• n/a</li> </ul> <b>Population Type:</b> <ul style="list-style-type: none"> <li>• n/a</li> </ul> <b>Reference test:</b> <ul style="list-style-type: none"> <li>• endoscopic biopsy</li> </ul> <b>First test:</b> <ul style="list-style-type: none"> <li>• serology test</li> </ul> <b>Controls biopsied:</b> <ul style="list-style-type: none"> <li>• yes</li> </ul> <b>Biopsy criteria:</b> <ul style="list-style-type: none"> <li>• subtotal or total VA, crypt hyperplasia, increased IEL</li> </ul> <b>Checked IgA def.</b> <ul style="list-style-type: none"> <li>• n/r</li> </ul> <b>Studied tests</b> <ul style="list-style-type: none"> <li>• IgA-AGA</li> <li>• IgG-AGA</li> </ul> <b>Methodology:</b> <ul style="list-style-type: none"> <li>• ELISA</li> </ul> <b>Cut-off:</b> <ul style="list-style-type: none"> <li>• levels between 25 and 50 RU/mL were accepted as weakly positive and levels &gt;50 RU/mL as strongly positive</li> </ul>	<b>Celiac Group 1</b> <ul style="list-style-type: none"> <li>• 26 short-statured children with probable CD on biopsy</li> <li>• mean age: n/r</li> <li>• % F: n/r</li> </ul>	<b>Group 1:</b> <ul style="list-style-type: none"> <li>• 21 short-statured children without CD on biopsy;</li> <li>• median age: n/r</li> <li>• % F: n/r</li> </ul>	celiac 1 vs control 1 IgA AGA	6	20	2	19	23	90	75	48
				celiac 1 vs control 1 IgG AGA	26	0	21	0	100	0	55	0

**Evidence Table 1 (cont'd): Included studies of the sensitivity and specificity of serology for CD**

Author, Year, Location	Study Design	Study Population	Control Population	Results								
				Comparison	4X4 table				Sens	Spec	PPV	NPV
					a	c	b	d				
Artan, 1998, Turkey	<b>Publication type:</b> <ul style="list-style-type: none"> <li>journal</li> </ul> <b>Study design:</b> <ul style="list-style-type: none"> <li>cohort</li> </ul> <b>Ethnicity:</b> <ul style="list-style-type: none"> <li>n/a</li> </ul> <b>Population Type:</b> <ul style="list-style-type: none"> <li>n/a</li> </ul> <b>Reference test:</b> <ul style="list-style-type: none"> <li>biopsy</li> </ul> <b>First test:</b> <ul style="list-style-type: none"> <li>simultaneous</li> </ul> <b>Controls biopsied:</b> <ul style="list-style-type: none"> <li>yes</li> </ul> <b>Biopsy criteria:</b> <ul style="list-style-type: none"> <li>ESPGAN</li> </ul> <b>Checked IgA def.</b> <ul style="list-style-type: none"> <li>n/r</li> </ul> <b>Studied tests</b> IgA-AGA; IgG-AGA; IgA and IgG; IgA or IgG	<b>Celiac Group 1</b> <ul style="list-style-type: none"> <li>24 children with CD by ESPGAN, out of 63 suspected CD pts</li> <li>age: n/r</li> <li>% F: n/r</li> </ul>	<b>Group 1:</b> <ul style="list-style-type: none"> <li>39 of 63 with normal intestinal villous structure.</li> <li>Age: n/r</li> <li>% F: n/r</li> </ul>	celiac 1 vs control 1-IgA-AGA	14	10	19	20;	58	51	42.4	66.7
				celiac 1 vs control 1-IgG-AGA	20	4	16;	23	83	59	55.6	85.2
				IgA AND IgG	12	12	13;	26	50	67	48	68.4
				IgA OR IgG	20	4	25;	14	83	36	44	77.8

Evidence Table 1 (cont'd): Included studies of the sensitivity and specificity of serology for CD

Author, Year, Location	Study Design	Study Population	Control Population	Results								
				Comparison	4X4 table				Sens	Spec	PPV	NPV
					a	c	b	d				
Ascher, 1996 Sweden	<b>Publication type:</b> <ul style="list-style-type: none"> <li>journal</li> </ul> <b>Study design:</b> <ul style="list-style-type: none"> <li>cohort</li> </ul> <b>Ethnicity:</b> <ul style="list-style-type: none"> <li>n/a</li> </ul> <b>Population Type:</b> <ul style="list-style-type: none"> <li>n/a</li> </ul> <b>Reference test:</b> <ul style="list-style-type: none"> <li>n/r</li> </ul> <b>First test:</b> <ul style="list-style-type: none"> <li>biopsy and serum tests obtained simultaneously</li> </ul> <b>Controls biopsied:</b> <ul style="list-style-type: none"> <li>yes</li> </ul> <b>Biopsy criteria:</b> <ul style="list-style-type: none"> <li>ESPGAN</li> </ul> <b>Checked IgA def.</b> <ul style="list-style-type: none"> <li>Yes</li> </ul> <b>Studied tests</b> <ul style="list-style-type: none"> <li>EIA IgA; EIA IgG; DIG-ELISA IgA; DIG-ELISA IgG; ARA; Human JAB; Rat JAB; EMA</li> </ul> <b>Methodology:</b> for EIA IgA and IgG: ELISA; for ARA: IF; for EMA, JAB: immunohistochemical method	<b>Celiac Group 1</b> <ul style="list-style-type: none"> <li>55 pts with biopsy proven CD</li> <li>mean age: n/r; &lt;5 y n=22; &gt;5 y n=33</li> <li>% female: n/r</li> </ul> <b>Celiac Group 2</b> <ul style="list-style-type: none"> <li>36 out of initial 55 pts who were treated with GFD of 1 y;</li> <li>mean age: n/r; &lt;5 y n=21; &gt;5 y n=15</li> <li>% female: n/r</li> </ul> <b>Celiac Group 3</b> <ul style="list-style-type: none"> <li>21 pts on a gluten-challenge diet of 3-6 mos</li> <li>mean age: n/r; &lt;5 y n=18; &gt;5 y n=3;</li> <li>% female: n/r</li> </ul> NB: group 2: biopsy proven CD on a GFD of > 1 y; group 3: biopsy proven CD on a gluten challenge of 3-6 mos duration	<b>Group 1:</b> <ul style="list-style-type: none"> <li>65 disease controls with biopsy proven normal intestinal mucosa;</li> <li>mean age: n/r; &lt;5 y n=18; &gt;5 y n=47</li> <li>% female: n/r</li> </ul>	group 1 vs control, EIA IgA	50	5	1	64	90.9	98.5		
				group 1 vs control, EIA IgG	53	2	20	45	96.4	69.2		
				group 1 vs control, DIG-ELISA IgA	50	5	2	63	90.9	96.9		
				group 1 vs control, DIS-ELISA IgA	48	7	9	56	87.3	86.2		
				group 1 vs control ARA	48	6	18	47	88.9	72.3		
				group 1 vs control, Human JAB	55	0	18	47	100	72.3		
				group 1 vs control, RAT JAB	55	0	11	54	100	83.1		
				group 1 vs control, EMA	54	1	0	65	98.2	100		
				group 3 vs control, EIA IgA	20	1	1	64	95.5	98.5		
				group 3 vs control, EIA IgG	19	2	20	45	90.5	69.2		
				group 3 vs control, DIG-ELISA IgA	17	4	2	63	80.9	96.9		
				group 3 vs control, DIS-ELISA IgA	15	5	9	56	75	86.1		
				group 3 vs control, ARA	18	3	18	47	85.7	72.3		
				group 3 vs control, Human JAB	21	0	18	47	100	72.3		
group 3 vs control, RAT JAB	18	3	11	54	85.7	83						
group 3 vs control, EMA	19	2	0	65	90.5	100						

**Evidence Table 1 (cont'd): Included studies of the sensitivity and specificity of serology for CD**

Author, Year, Location	Study Design	Study Population	Control Population	Results								
				Comparison	4X4 table				Sens	Spec	PPV	NPV
					a	c	b	d				
Ascher, 1990 Sweden	<p><b>Publication type:</b></p> <ul style="list-style-type: none"> <li>journal</li> </ul> <p><b>Study design:</b></p> <ul style="list-style-type: none"> <li>cohort</li> </ul> <p><b>Ethnicity:</b></p> <ul style="list-style-type: none"> <li>n/a</li> </ul> <p><b>Population Type:</b></p> <ul style="list-style-type: none"> <li>n/a</li> </ul> <p><b>Reference test:</b></p> <ul style="list-style-type: none"> <li>Watson capsule</li> </ul> <p><b>First test:</b></p> <ul style="list-style-type: none"> <li>biopsy and serum tests obtained simultaneously</li> </ul> <p><b>Controls biopsied:</b></p> <ul style="list-style-type: none"> <li>yes</li> </ul> <p><b>Biopsy criteria:</b> ESPGAN</p> <p><b>Checked IgA def.</b> Yes</p> <p><b>Studied tests</b></p> <ul style="list-style-type: none"> <li>Pharmacia Gluten IgA-AGA measured by enzyme immunoassay (PG IgA-EIA)</li> </ul> <p><b>Methodology:</b></p> <ul style="list-style-type: none"> <li>ELISA</li> </ul> <p><b>Cut-off:</b></p> <ul style="list-style-type: none"> <li>35 AU (arbitrary units)</li> </ul>	<p><b>Celiac Group 1</b></p> <ul style="list-style-type: none"> <li>36 pts with CD out of 130 consecutive group of children who had a small intestinal biopsy due to symptoms suggestive of CD; out of 36 pts with CD, 28 have been verified according to ESPGAN criteria;</li> <li>mean age: n/r</li> <li>% female: n/r</li> </ul> <p><b>Celiac Group 2</b></p> <ul style="list-style-type: none"> <li>children with CD according to ESPGAN's criteria, differing with regard to gluten content of diet: first biopsy on a gluten-containing diet (n=29); at the second biopsy after 1 y on GFD (n=45); at the third biopsy after gluten-challenge (n=45);</li> <li>mean age: n/r</li> <li>% F: n/r</li> </ul> <p><b>Celiac Group 3</b></p> <ul style="list-style-type: none"> <li>children with an initial abnormal mucosa that normalized on a GFD but did not relapse after gluten challenge during 3-31 mos</li> <li>mean age: n/r</li> <li>% F: n/r</li> </ul>	<p><b>Group 1:</b></p> <ul style="list-style-type: none"> <li>92 children taken from consecutive group of 130 children who did not have CD; 12 had other food intolerance, 1 had cystic fibrosis and 79 had no intestinal disorder</li> </ul>	group 1 vs control PG IgA-EIA	35	1	7	85	97	92	83.3	98.8

**Evidence Table 1 (cont'd): Included studies of the sensitivity and specificity of serology for CD**

Author, Year, Location	Study Design	Study Population	Control Population	Results								
				Comparison	4X4 table				Sens	Spec	PPV	NPV
					a	c	b	d				
Bahia, 2001 Brazil	<p><b>Publication type:</b></p> <ul style="list-style-type: none"> <li>journal</li> </ul> <p><b>Study design:</b></p> <ul style="list-style-type: none"> <li>cohort</li> </ul> <p><b>Ethnicity:</b></p> <ul style="list-style-type: none"> <li>n/a</li> </ul> <p><b>Population Type:</b></p> <ul style="list-style-type: none"> <li>suspected CD</li> </ul> <p><b>Reference test:</b></p> <ul style="list-style-type: none"> <li>Carey capsule</li> </ul> <p><b>First test:</b></p> <ul style="list-style-type: none"> <li>n/r</li> </ul> <p><b>Controls biopsied:</b></p> <ul style="list-style-type: none"> <li>yes</li> </ul> <p><b>Biopsy criteria:</b></p> <ul style="list-style-type: none"> <li>severe VA</li> </ul> <p><b>Checked IgA def.</b></p> <ul style="list-style-type: none"> <li>n/r</li> </ul> <p><b>Studied tests</b></p> <ul style="list-style-type: none"> <li>IgA and IgG-AGA</li> </ul> <p><b>Methodology:</b></p> <ul style="list-style-type: none"> <li>ELISA</li> </ul> <p><b>Cut-off:</b></p> <ul style="list-style-type: none"> <li>mean+2 SD for a group of 20 normal children: 0.022 for IgA (mean=0.0065, SD=0.0076); and 0.103 for IgG (mean=0.0393, SD=0.032)</li> </ul>	<p><b>Celiac Group 1</b></p> <ul style="list-style-type: none"> <li>22 pts with CD</li> <li>age (mos): mean/SD: 30.6+/-28.8;</li> <li>% F: 54.5</li> <li>median w/range: 19.3 (6.0-135.6)</li> <li>% female: 54.5</li> </ul> <p><b>Celiac Group 2</b></p> <ul style="list-style-type: none"> <li>61 pts with other enteropathies (OE);</li> <li>age (mos): mean/SD: 43.3+/-38.1;</li> <li>median w/range: 27.9 (4.8-156.5);</li> <li>% F: 59</li> </ul>	<p><b>Group 1:</b></p> <ul style="list-style-type: none"> <li>46 controls with biopsy-proven non-CD enteropathies (CO)</li> <li>age (mos): mean/SD: 96.9+/-48.5; median w/range: 92.6 (12.2-170.8);</li> <li>% F: 54.5</li> </ul>	IgA group 1 vs CO	21	1	2	46	95.5	95.6	when prevalence is 1:500 PPV for IgA is 4.8%; in prevalence of 1:1000 PPV=2.0; in prevalence of 1:2000, PPV=1.1	in any prevalence of CD NPV for IgA is 99.9%
IgA group 1 vs OE+CO	21	1	9	98	95.5	91.6						
IgG group 1 vs CO	20	2	1	45	90.9	97.8						
IgG group 1 vs OE+CO	20	2	12	95	90.9	88.7						

Evidence Table 1 (cont'd): Included studies of the sensitivity and specificity of serology for CD

Author, Year, Location	Study Design	Study Population	Control Population	Results								
				Comparison	4X4 table				Sens	Spec	PPV	NPV
					a	c	b	d				
Bardela, 2001 Italy	<p><b>Publication type:</b></p> <ul style="list-style-type: none"> <li>journal</li> </ul> <p><b>Study design:</b></p> <ul style="list-style-type: none"> <li>cohort</li> </ul> <p><b>Ethnicity:</b></p> <ul style="list-style-type: none"> <li>n/a</li> </ul> <p><b>Population Type:</b></p> <ul style="list-style-type: none"> <li>suspected CD</li> </ul> <p><b>Reference test:</b></p> <ul style="list-style-type: none"> <li>endoscopic biopsy</li> </ul> <p><b>First test:</b></p> <ul style="list-style-type: none"> <li>n/r</li> </ul> <p><b>Controls biopsied:</b></p> <ul style="list-style-type: none"> <li>yes</li> </ul> <p><b>Biopsy criteria:</b></p> <ul style="list-style-type: none"> <li>Marsh, no grade reported</li> </ul> <p><b>Checked IgA def.</b></p> <ul style="list-style-type: none"> <li>Yes and excluded</li> </ul> <p><b>Studied tests</b></p> <ul style="list-style-type: none"> <li>IgA-AGA; IgA-EMA; IgA-tTGA</li> </ul> <p><b>Methodology:</b></p> <ul style="list-style-type: none"> <li>ELISA for AGA; ELISA for tTGA GP liver; IF for EMA ME</li> </ul> <p><b>Cut-off:</b></p> <ul style="list-style-type: none"> <li>AGA: 12 AU/mL; tTGA: &gt;10 AU/mL; EMA: antibody titre &gt; 1:10</li> </ul>	<p><b>Celiac Group 1</b></p> <ul style="list-style-type: none"> <li>40 untreated biopsy-proven CD pts</li> <li>age (y): mean 38, range 16-77</li> <li>% F: 72.5</li> </ul> <p><b>Celiac Group 2</b></p> <ul style="list-style-type: none"> <li>195 treated CD pts; biopsy proven on GFD</li> <li>age (y): mean 38, range 16-79</li> <li>% F: 70.2</li> </ul>	<p><b>Group 1:</b></p> <ul style="list-style-type: none"> <li>110 biopsy proven non-CD disease controls (CO): inflammatory bowel disease (n=22); IBS (n=29); peptic ulcer (n=7); diverticular disease (n=6); pancreatitis (n=5); non-ulcer dyspepsia(n=14); anemia not due to malabsorption (n=7); reflux esophagitis (n=3); atrophic gastritis (n=2); acute appendicitis (n=1)</li> <li>age (y): mean 41, range 14-80</li> <li>% F: 75.7;</li> </ul>	AGA group 1 vs CO EMA group 1 vs CO tTGA group 1 vs CO	38 40 40	2 0 0	12 3 2	98 107 108	95 100 100	89 97.2 98.2	when expected prevalence is 0.5%, PPV for AGA is 4.2%; for EMA - 15.7% and for tTGA - 21.8%; when expected prevalence of CD is 50%, PPV for AGA is 89.7%, for EMA - 97.4% and for tTGA - 98.2%	when expected prevalence is 0.5%, NPV for AGA is 99.9%; for EMA - 100% and for tTGA - 100%; when expected prevalence of CD is 50%, NPV for AGA is 94.7%, for EMA - 100% and for tTGA - 100%

Evidence Table 1 (cont'd): Included studies of the sensitivity and specificity of serology for CD

Author, Year, Location	Study Design	Study Population	Control Population	Results								
				Comparison	4X4 table				Sens	Spec	PPV	NPV
					a	c	b	d				
Berger, 1996 Switzerland	<p><b>Publication type:</b></p> <ul style="list-style-type: none"> <li>journal</li> </ul> <p><b>Study design:</b></p> <ul style="list-style-type: none"> <li>case-control</li> </ul> <p><b>Ethnicity:</b></p> <ul style="list-style-type: none"> <li>n/a</li> </ul> <p><b>Population Type:</b></p> <ul style="list-style-type: none"> <li>suspected CD</li> </ul> <p><b>Reference test:</b></p> <ul style="list-style-type: none"> <li>endoscopic biopsy</li> </ul> <p><b>First test:</b></p> <ul style="list-style-type: none"> <li>n/r</li> </ul> <p><b>Controls biopsied:</b></p> <ul style="list-style-type: none"> <li>yes</li> </ul> <p><b>Biopsy criteria:</b></p> <ul style="list-style-type: none"> <li>ESPGAN revised with complete VA</li> </ul> <p><b>Checked IgA def.</b></p> <ul style="list-style-type: none"> <li>n/r</li> </ul> <p><b>Studied tests</b></p> <ul style="list-style-type: none"> <li>5 different AGA assays: Eurospital; Labodia; Pharmacia; FIST-IF; Granditsch; IgA EMA</li> </ul> <p><b>Methodology:</b></p> <ul style="list-style-type: none"> <li>for AGA - ELISA; for EMA - IF</li> </ul> <p><b>Cut-off:</b></p> <p>For IgG Eurospital: index30-50; in Pharmacia units: 30-50 AU; Labodia: 30 U/mL; in Pharmacia units-18; Pharmacia: 20-100 AU; FIST: titer 1:20; in Pharmacia units-13 AU; Granditsch: 0.350 OD; in Pharmacia units: 70 AU; for IgA Eurospital: index 8-20; in Pharmacia units: 53-132 AU; Labodia: 15 U/mL; in Pharmacia units-28; Pharmacia: 20-35 AU; FIST: titer 1:20; in Pharmacia units-34 AU; Granditsch: 0.250 OD; in Pharmacia units: 38 AU</p>	<p><b>Celiac Group 1</b></p> <ul style="list-style-type: none"> <li>67</li> </ul> <p>biopsy proven CD pts</p> <ul style="list-style-type: none"> <li>age: n/r</li> <li>% F: n/r</li> </ul>	<p><b>Group 1 (CO):</b></p> <ul style="list-style-type: none"> <li>54 biopsy proven non-CD pts: transient GI problems (n=39), ulcerative colitis (n=2), Crohn's disease (n=8), duodenal ulcer (n=3), short stature (n=2)</li> </ul> <ul style="list-style-type: none"> <li>age: n/r</li> <li>% F: n/r</li> </ul>	<p><b>CD vs CO</b></p> <p>Eurospital IgG</p> <p>FIST IgG</p> <p>Granditsch IgG</p> <p>Labodia IgG</p> <p>Pharmacia IgG</p> <p>Eurospital IgA</p> <p>FIST IgA</p> <p>Granditsch IgA</p> <p>Labodia IgA</p> <p>Pharmacia IgA;</p>	55	12	27	27	82	50	67	69
				Eurospital IgG	55	12	27	27	82	50	67	69
				FIST IgG	56	11	53	1	84	2	51	8
				Granditsch IgG	55	12	46	8	82	15	54	36
				Labodia IgG	61	6	42	12	91	22	59	57
				Pharmacia IgG	46	21	22	32	69	59	68	53
				Eurospital IgA	41	26	3	51	61	94	93	57
				FIST IgA	44	23	49	5	66	9	47	17
				Granditsch IgA	53	14	23	31	79	57	70	59
				Labodia IgA	58	9	35	19	87	35	62	58
				Pharmacia IgA;	51	16	18	36	76	67	74	59

**Evidence Table 1 (cont'd): Included studies of the sensitivity and specificity of serology for CD**

Author, Year, Location	Study Design	Study Population	Control Population	Results								
				Comparison	4X4 table				Sens	Spec	PPV	NPV
					a	c	b	d				
Biagi, 2001 Italy	<b>Publication type:</b> <ul style="list-style-type: none"> <li>journal</li> </ul> <b>Study design:</b> <ul style="list-style-type: none"> <li>case-control</li> </ul> <b>Ethnicity:</b> <ul style="list-style-type: none"> <li>n/a</li> </ul> <b>Population Type:</b> <ul style="list-style-type: none"> <li>n/a</li> </ul> <b>Reference test:</b> <ul style="list-style-type: none"> <li>Carey capsule</li> </ul> <b>First test:</b> <ul style="list-style-type: none"> <li>n/r</li> </ul> <b>Controls biopsied:</b> <ul style="list-style-type: none"> <li>yes</li> </ul> <b>Biopsy criteria:</b> <ul style="list-style-type: none"> <li>partial VA or greater</li> </ul> <b>Checked IgA def.</b> <ul style="list-style-type: none"> <li>Only in EMA (neg) pts in CD group</li> </ul> <b>Studied tests</b> <ul style="list-style-type: none"> <li>IgA-tTG</li> <li>IgA-EMA</li> </ul> <b>Methodology:</b> <ul style="list-style-type: none"> <li>TTG-GP; EMA -ME</li> </ul> <b>Cut-off:</b> <ul style="list-style-type: none"> <li>on the basis of ROC analysis performed on the preliminary results (group of 30 controls) results &gt;0.65 OD (optical density) were considered positive; &lt;0.35 OD - negative and 0.35-0.65 OD - borderline</li> </ul>	<b>Celiac Group 1</b> <ul style="list-style-type: none"> <li>56 pts with biopsy-proven CD</li> <li>age (y): mean/SD: 39.2+-19.2; range 4-79</li> <li>% F: 76</li> </ul>	<b>Group 1:</b> <ul style="list-style-type: none"> <li>52 disease controls (biopsy-proven non-SD enteropathies) with irritable bowel disease (n=29); Crohn's disease (n=9); gastric lymphoma (n=7); Whipple disease (n=3); giardiasis (n=2); systemic mastocytosis (n=1); IgE-mediated food sensitivity</li> <li>mean age (y): 40.4+-19.9; range 14-79;</li> <li>% F:</li> </ul>	IgA TTG group 1 vs CO when considering borderline results as positive	55	1	8	44	98.2	84.6	87.3	97.7
				IgA-tTG group 1 vs CO when considering borderline results as negative	49	7	1	51	87.5	98.1	98	87.9
				IgA EMA group 1 vs CO	53	3	0	52	94.6	100	100	94.5

**Evidence Table 1 (cont'd): Included studies of the sensitivity and specificity of serology for CD**

Author, Year, Location	Study Design	Study Population	Control Population	Results									
				Comparison	4X4 table								
					a	c	b	d	Sens	Spec	PPV	NPV	
Bode, 1993 Denmark	<p><b>Publication type:</b></p> <ul style="list-style-type: none"> <li>journal</li> </ul> <p><b>Study design:</b></p> <ul style="list-style-type: none"> <li>cohort</li> </ul> <p><b>Ethnicity:</b></p> <ul style="list-style-type: none"> <li>n/a</li> </ul> <p><b>Population Type:</b></p> <ul style="list-style-type: none"> <li>n/a</li> </ul> <p><b>Reference test:</b></p> <ul style="list-style-type: none"> <li>n/r</li> </ul> <p><b>First test:</b></p> <ul style="list-style-type: none"> <li>biopsy</li> </ul> <p><b>Controls biopsied:</b></p> <ul style="list-style-type: none"> <li>yes</li> </ul> <p><b>Biopsy criteria:</b></p> <ul style="list-style-type: none"> <li>typical biopsy and response to a GFD (likely ESPGAN)</li> </ul> <p><b>Checked IgA def.</b></p> <ul style="list-style-type: none"> <li>yes</li> </ul> <p><b>Studied tests</b></p> <ul style="list-style-type: none"> <li>serum IgG-AGA</li> <li>serum IgA-AGA</li> </ul> <p><b>Methodology:</b></p> <ul style="list-style-type: none"> <li>DIG-ELISA - diffusion in gel ELISA</li> </ul> <p><b>Cut-off:</b></p> <ul style="list-style-type: none"> <li>1) old limits: positive test for IgA AGA was defined as &gt;10.5 mm and/or IgG level &gt;14 mm;</li> <li>2) new limits for children: for IgA &gt;10 mm and for IgG &gt;13 mm</li> </ul>	<p><b>Celiac Group 1</b></p> <ul style="list-style-type: none"> <li>14 of 233 consecutive children with untreated CD</li> <li>median age for the 233: 2.75; range 0.33-15.5)</li> <li>117 males; 74 females</li> </ul> <p><b>Celiac Group 2a</b></p> <ul style="list-style-type: none"> <li>T-CD - group 2a) 47 children with CD on GFD</li> <li>age (y): median 11.83, range 1-17.92</li> <li>% F: 61.7</li> </ul> <p><b>Celiac Group 2b</b></p> <ul style="list-style-type: none"> <li>14 children with known CD on gluten challenge</li> </ul>	<p><b>Group 1:</b></p> <ul style="list-style-type: none"> <li>177 children with non-CD diseases: postenteritis diarrhea (n=43), short stature (n=25), diarrhea (n=25), failure to thrive (n=22), food allergy (n=11), disaccharide intolerance (n=8), dietary problems (n=8), giardiasis (n=4), ulcerative colitis (n=3), recurrent abdominal pain (3), constipation (n=2), recurrent infections (n=2), acute gastroenteritis (n=1), Crohn's disease (n=1), other GI diseases (n=4), other non-GI diseases (n=15)</li> </ul> <p><b>Group 2:</b></p> <ul style="list-style-type: none"> <li>8 children not CD/GFD and gluten challenge</li> <li>age (y): median 2.5, range 1.17-7.5</li> <li>% F: 37.5</li> </ul>	<p>group 1 vs control 1, serum AGA-IgA; in brackets data according to new cut off</p> <p>group 1 vs control 1, serum AGA-IgG; in brackets data according to new cut off limits</p> <p>group 1 vs control 1, serum AGA-IgA/IgG; in brackets data according to new cut-off limits</p>					64 (79)	99 (98)	90 (79)	97 (98)	
										71 (93)	99 (98)	100 (76)	98 (99)
										86 (100)	99 (97)	92 (70)	99 (100)

**Evidence Table 1 (cont'd): Included studies of the sensitivity and specificity of serology for CD**

Author, Year, Location	Study Design	Study Population	Control Population	Results								
				Comparison	4X4 table				Sens	Spec	PPV	NPV
					a	c	b	d				
Bode, 1994 Denmark	<b>Publication type:</b> <ul style="list-style-type: none"> <li>journal</li> </ul> <b>Study design:</b> <ul style="list-style-type: none"> <li>cohort</li> </ul> <b>Ethnicity:</b> <ul style="list-style-type: none"> <li>n/a</li> </ul> <b>Population Type:</b> <ul style="list-style-type: none"> <li>n/a</li> </ul> <b>Reference test:</b> <ul style="list-style-type: none"> <li>n/r</li> </ul> <b>First test:</b> <ul style="list-style-type: none"> <li>n/r</li> </ul> <b>Controls biopsied:</b> <ul style="list-style-type: none"> <li>yes</li> </ul> <b>Biopsy criteria:</b> <ul style="list-style-type: none"> <li>Crypt hyperplasia, VA and increase inflammatory cells</li> </ul> <b>Checked IgA def.</b> <ul style="list-style-type: none"> <li>n/r</li> </ul> <b>Studied tests</b> <ul style="list-style-type: none"> <li>serum IgG-AGA</li> <li>serum IgA-AGA</li> </ul> <b>Methodology:</b> <ul style="list-style-type: none"> <li>DIG-ELISA - diffusion in gel ELISA</li> </ul> <b>Cut-off:</b> <ul style="list-style-type: none"> <li>positive test for IgA AGA was &gt;10.5 mm; for IgG - &gt;14 mm; borderline levels for IgA was between 9.5 mm and 10.5 mm; and for IgG - between 13 mm and 14 mm</li> </ul>	<b>Celiac Group 1</b> <ul style="list-style-type: none"> <li>100 consecutive adult pts admitted for a small intestinal biopsy on suspicion of CD</li> <li>age (y): median 51, range 17-81</li> <li>% F: 64; <u>13 CD pts</u></li> </ul> <b>Celiac Group 2</b> <ul style="list-style-type: none"> <li>118 adult pts with increased or borderline (gliadin antibodies) AGA</li> <li>age (y): median 48, range 19-95</li> <li>% F: 72;</li> <li>55 children pts with increased or borderline (gliadin antibodies) AGA</li> <li>age (y): median 4, range 7 mos-17</li> <li>% F: 56</li> </ul>	<b>Group 1:</b> <ul style="list-style-type: none"> <li>87 out of 100 suspected of CD who did not have CD by biopsy</li> </ul>	group 1 IgA-AGA					46	98	75	92
				group 1 IgG-AGA					62	97	73	94
				group 1 IgA/IgG-AGA					77	95	71	97

**Evidence Table 1 (cont'd): Included studies of the sensitivity and specificity of serology for CD**

Author, Year, Location	Study Design	Study Population	Control Population	Results								
				Comparison	4X4 table				Sens	Spec	PPV	NPV
					a	c	b	d				
Bonamico, 2001 Italy	<b>Publication type:</b> <ul style="list-style-type: none"> <li>journal</li> </ul> <b>Study design:</b> <ul style="list-style-type: none"> <li>case control</li> </ul> <b>Ethnicity:</b> <ul style="list-style-type: none"> <li>n/a</li> </ul> <b>Population Type:</b> <ul style="list-style-type: none"> <li>n/a</li> </ul> <b>Reference test:</b> <ul style="list-style-type: none"> <li>biopsy</li> </ul> <b>First test:</b> <ul style="list-style-type: none"> <li>biopsy</li> </ul> <b>Controls biopsied:</b> <ul style="list-style-type: none"> <li>yes</li> </ul> <b>Biopsy criteria:</b> <ul style="list-style-type: none"> <li>ESPGAN (severe VA and crypt hyperplasia)</li> </ul> <b>Checked IgA def.</b> <ul style="list-style-type: none"> <li>Yes</li> </ul> <b>Studied tests</b> <ul style="list-style-type: none"> <li>tTG-HR (RIA)</li> <li>tTG-GP (ELISA)</li> <li>IF-EMA</li> </ul> <b>Methodology:</b> <ul style="list-style-type: none"> <li>tTG-HR</li> <li>tTG-GP</li> <li>EMA-ME IF</li> </ul> <b>Cut-off:</b> <ul style="list-style-type: none"> <li>RIA anti-tTG Ab <math>\geq 0.05</math> index as selected on ROC plot analysis; ELISA anti-tTG Ab <math>\geq 7</math> AU; IF-EMA - n/r (appearance of fluorescence)</li> </ul>	<b>Celiac Group 1</b> <ul style="list-style-type: none"> <li>62 pts; untreated with biopsy-proven celiac CD</li> <li>median age 7, age range 1-23</li> <li>% F: n/r</li> </ul> <b>Celiac Group 2</b> <ul style="list-style-type: none"> <li>78 pts; GFD treated, at least 6 mos</li> <li>median age, age range</li> <li>% F: n/r</li> </ul> <b>Celiac Group 3</b> <ul style="list-style-type: none"> <li>14 pts; on gluten-challenge at least 3 mos</li> <li>median age, age range</li> <li>% F: n/r</li> </ul>	<b>Group 1:</b> <ul style="list-style-type: none"> <li>56 disease controls; chronic diarrhea, short stature, recurrent abdominal pain; age and sex-matched controls</li> <li>median age, age range</li> <li>% F: n/r</li> </ul>	RIA group 1 vs control	62	0	0	56	100	100	100	100
				RIA group 2 vs control	34	44	0	56	43.5	100	100	56
				RIA group 3 vs control	14	0	0	14	100	100	100	100
				ELISA group 1 vs control	56	6	0	56	90.3	100	100	90.3
				ELISA group 2 vs control	7	71	0	56	9.8	100	100	44
				ELISA group 3 vs control	11	3	0	56	78.5	100	100	94.9
				IF-EMA group 1 vs control	59	3	1	55	95.1	98.2	98.3	94.8
				IF-EMA group 2 vs control	9	69	1	55	11.5	98.2	90	44.3
				IF-EMA group 3 vs control	13	1	1	55	92.8	98.2	92.8	98.2

**Evidence Table 1 (cont'd): Included studies of the sensitivity and specificity of serology for CD**

Author, Year, Location	Study Design	Study Population	Control Population	Results								
				Comparison	4X4 table				Sens	Spec	PPV	NPV
					a	c	b	d				
Bottaro, 1997 Italy	<b>Publication type:</b> <ul style="list-style-type: none"> <li>• journal</li> </ul> <b>Study design:</b> <ul style="list-style-type: none"> <li>• case-control</li> </ul> <b>Ethnicity:</b> <ul style="list-style-type: none"> <li>• n/a</li> </ul> <b>Population Type:</b> <ul style="list-style-type: none"> <li>• n/a</li> </ul> <b>Reference test:</b> <ul style="list-style-type: none"> <li>• n/r</li> </ul> <b>First test:</b> <ul style="list-style-type: none"> <li>• n/r</li> </ul> <b>Controls biopsied:</b> <ul style="list-style-type: none"> <li>• yes</li> </ul> <b>Biopsy criteria:</b> <ul style="list-style-type: none"> <li>• ESPGAN</li> </ul> <b>Checked IgA def.</b> <ul style="list-style-type: none"> <li>• Yes</li> </ul> <b>Studied tests</b> serum AGA-IgG serum AGA-IgA serum EMA-IgA serum ARA-IgA <b>Methodology:</b> <ul style="list-style-type: none"> <li>• for AGA ELISA; for AGA-IgA IF; for EMA-IgA IF using ME or HU</li> </ul> <b>Cut-off:</b> <ul style="list-style-type: none"> <li>• AGA: for IgA 10% and for IgG 25%, resulting the mean+-SD of values obtained from children proven normal</li> </ul>	<b>Celiac Group 1</b> <ul style="list-style-type: none"> <li>• 50 children with biopsy proven CD</li> <li>• age: median 2.5 y, range 7 mos - 15 y</li> <li>• % F: 68</li> </ul>	<b>Group 1:</b> <ul style="list-style-type: none"> <li>• 25 control group of children (CO)</li> <li>• age: median 3.0 y, range 9 mos - 14 y</li> <li>• % F: 52</li> </ul>	group 1 vs control 1, serum AGA IgA	46	4	8	17	92	68	85.2	80.9;
				group 1 vs control 1, serum AGA IgG	50	0	16	9	100	36	75.7	100
				group 1 vs control 1, serum EMA-IgA, HUC	47	3	0	25	94	100	100	89.2
				group 1 vs control 1, serum EMA-IgA, ME	48	2	1	24	96	96	97.9	92.3
				group 1 vs control 1, serum ARA IgA								

Evidence Table 1 (cont'd): Included studies of the sensitivity and specificity of serology for CD

Author, Year, Location	Study Design	Study Population	Control Population	Results								
				Comparison	4X4 table				Sens	Spec	PPV	NPV
					a	c	b	d				
Carroccio 2002 Italy	<p><b>Publication type:</b></p> <ul style="list-style-type: none"> <li>journal</li> </ul> <p><b>Study design:</b></p> <ul style="list-style-type: none"> <li>case-control</li> </ul> <p><b>Ethnicity:</b></p> <ul style="list-style-type: none"> <li>n/a</li> </ul> <p><b>Population Type:</b></p> <ul style="list-style-type: none"> <li>suspected CD</li> </ul> <p><b>Reference test:</b> children: Crosby capsule; adults: endoscopic biopsy</p> <p><b>First test:</b></p> <ul style="list-style-type: none"> <li>n/r</li> </ul> <p><b>Controls biopsied:</b></p> <ul style="list-style-type: none"> <li>yes</li> </ul> <p><b>Biopsy criteria:</b> Marsh; CD was diagnosed as enlarged crypts and/or VA - with normalization on GFD</p> <p><b>Checked IgA def.</b></p> <ul style="list-style-type: none"> <li>Yes</li> </ul> <p><b>Studied tests</b> Serum AGA-IgG; Serum AGA-IgA; Serum EMA; Culture EMA; Culture EMA+gliadin</p> <p><b>Methodology:</b> ELISA for AGA; indirect IF on ME for serum EMA; biopsy specimen incubation in a culture medium with gliadin peptide and further IF on ME</p> <p><b>Cut-off:</b> AGA-results expressed as a % of reference serum: 20% was upper normal limit for IgG and 10% for IgA antibodies; EMA-semi-quantified as follows: 0=not detectable; 1=positive at dilutions between 1/5 and 1/20; 2=positive between 1/40 and 1/80; 3=positive at 1/100; 4=positive at 1/200; 5=positive at &gt;1/200; EMA in culture-same as serum EMA and for IgG 25%, resulting the mean+-SD of values obtained from children proven normal</p>	<p><b>Celiac Group 1</b></p> <ul style="list-style-type: none"> <li>91 pts with biopsy proven CD</li> <li>age (y): median 2; range 7 mos - 84 y</li> <li>% F: 56</li> </ul> <p><b>Celiac Group 2</b></p> <ul style="list-style-type: none"> <li>21 treated CD pts on a GFD with normal intestinal architecture</li> <li>age (y): median 5, range 3-51</li> <li>% F: 62</li> </ul>	<p><b>Group 1:</b></p> <ul style="list-style-type: none"> <li>100 subjects with a normal intestinal morphology or diseases other than CD (biopsy proven)</li> <li>age (y): median 21 y, range 9 mos-76 y</li> <li>% F: 56</li> </ul> <p><b>Group 2:</b></p> <ul style="list-style-type: none"> <li>22 disease controls (biopsy-proven non-CD) with GERD-like symptoms</li> <li>age (y): median 33, range 4-60</li> <li>% F: 54.5</li> </ul>	group 1 vs control 1, serum AGA IgG	69	22	25	75	76	75	73.4	77.3
				group 1 vs control 1, serum AGA IgA	61	30	10	90	67	90	86	75
				group 1 vs control 1, serum EMA	80	11	1	99	88	99	98.7	90
				group 1 vs control 1, culture EMA	82	9	0	100	90	100	100	91.7
				group 1 vs control 1, culture EMA+gliadin	87	4	0	100	96	100	100	96
				group 2 vs control 2, culture EMA+gliadin	10	11	0	22	47.6	100	100	66.7

**Evidence Table 1 (cont'd): Included studies of the sensitivity and specificity of serology for CD**

Author, Year, Location	Study Design	Study Population	Control Population	Results								
				Comparison	4X4 table				Sens	Spec	PPV	NPV
					a	c	b	d				
Carroccio 1993 Italy	<b>Publication type:</b> <ul style="list-style-type: none"> <li>journal</li> </ul> <b>Study design:</b> <ul style="list-style-type: none"> <li>case-control</li> </ul> <b>Ethnicity:</b> <ul style="list-style-type: none"> <li>n/a</li> </ul> <b>Population Type:</b> <ul style="list-style-type: none"> <li>n/a</li> </ul> <b>Reference test:</b> <ul style="list-style-type: none"> <li>Biopsy Watson capsule</li> </ul> <b>First test:</b> <ul style="list-style-type: none"> <li>biopsy</li> </ul> <b>Controls biopsied:</b> <ul style="list-style-type: none"> <li>yes</li> </ul> <b>Biopsy criteria:</b> <ul style="list-style-type: none"> <li>Biopsies confirmed at diagnosis, on GFD, and rechallenge (severity grade-not reported)</li> </ul> <b>Checked IgA def.</b> <ul style="list-style-type: none"> <li>n/r</li> </ul> <b>Studied tests</b> IgA-AGA IgG-AGA IgA-EMA <b>Methodology:</b> <ul style="list-style-type: none"> <li>ELISA; IF likely ME</li> </ul> <b>Cut-off:</b> <ul style="list-style-type: none"> <li>AGA mean +2 SD</li> </ul>	<b>Celiac Group 1</b> <ul style="list-style-type: none"> <li>infants with CD on gluten diet; biopsy proven</li> <li>median age 2.6; range 0.8-10</li> <li>21 males; 22 females</li> </ul>	<b>Group 1:</b> <ul style="list-style-type: none"> <li>60 infants disease controls; biopsy proven non-CD</li> <li>median age 1.2; range 0.9-9</li> <li>32 males; 28 females</li> </ul>	celiac 1 vs control	31 40 45	14 5 0	5 32 2	55 28 58	68 88.9 100	91.7 46.7 96.7	86.1 55.6 95.7	79.7 84.8 100

**Evidence Table 1 (cont'd): Included studies of the sensitivity and specificity of serology for CD**

Author, Year, Location	Study Design	Study Population	Control Population	Results								
				Comparison	4X4 table				Sens	Spec	PPV	NPV
					a	c	b	d				
Carroccio 2002 Italy	<b>Publication type:</b> <ul style="list-style-type: none"> <li>journal</li> </ul> <b>Study design:</b> <ul style="list-style-type: none"> <li>cohort</li> </ul> <b>Ethnicity:</b> <ul style="list-style-type: none"> <li>n/a</li> </ul> <b>Population Type:</b> <ul style="list-style-type: none"> <li>n/a</li> </ul> <b>Reference test:</b> gastroduodenoscopy and biopsy <b>First test:</b> <ul style="list-style-type: none"> <li>simultaneously</li> </ul> <b>Controls biopsied:</b> <ul style="list-style-type: none"> <li>yes</li> </ul> <b>Biopsy criteria:</b> <ul style="list-style-type: none"> <li>Ferguson and Murray; partial or total VA</li> </ul> <b>Checked IgA def.</b> yes (none of CD pts showed IgA deficiency) <b>Studied tests</b> EMA-IgA; anti-GP-tTG IgA (GP used); anti-h-tTG IgA (HR) <b>Methodology:</b> for EMA - IF ME; for tTG-ELISA <b>Cut-off:</b> anti-h-tTG IgA-results were expressed as a % of the positive control serum. Normal values were taken as <7%, which represented a value >2 SD above the mean of 850 healthy individuals; anti-gp-tTG IgA-values >95th percentile of a control group were considered positive;	<b>Celiac Group 1</b> <ul style="list-style-type: none"> <li>24 consecutive pts with untreated biopsy proven CD</li> <li>age (y): median 30, range 18-80</li> <li>% F: 58</li> </ul>	<b>Group 1:</b> <ul style="list-style-type: none"> <li>183 consecutive pts with biopsy proven non-CD disorders: IBS (n=70), esophagitis (n=45), peptic ulcers (n=41), Crohn's disease (n=15), Food intolerance (10), chronic liver disease (n=6), gastric cancer (n=2), right colon cancer (n=2), collagenous colitis (n=1), intestinal bacterial overgrowth syndrome (n=1), psoriasis (n=1)</li> <li>age (y): median 46, range 17-84</li> <li>% F: 51</li> </ul>	CD vs CO: EMA	24	0	0	183	100	100	100	100
				CD vs CO: anti-GP-tTG IgA	24	0	15	168	100	92	60	100
				CD vs CO: anti-h-tTG IgA	24	0	6	177	100	97	80	100

Evidence Table 1 (cont'd): Included studies of the sensitivity and specificity of serology for CD

Author, Year, Location	Study Design	Study Population	Control Population	Results								
				Comparison	4X4 table				Sens	Spec	PPV	NPV
					a	c	b	d				
Cataldo, 2000 Italy	<p><b>Publication type:</b></p> <ul style="list-style-type: none"> <li>journal</li> </ul> <p><b>Study design:</b></p> <ul style="list-style-type: none"> <li>case-control</li> </ul> <p><b>Ethnicity:</b></p> <ul style="list-style-type: none"> <li>n/a</li> </ul> <p><b>Population Type:</b></p> <ul style="list-style-type: none"> <li>IgA deficient adults and children</li> </ul> <p><b>Reference test:</b></p> <ul style="list-style-type: none"> <li>n/r</li> </ul> <p><b>First test:</b></p> <ul style="list-style-type: none"> <li>biopsy</li> </ul> <p><b>Controls biopsied:</b></p> <ul style="list-style-type: none"> <li>yes</li> </ul> <p><b>Biopsy criteria:</b> Original &amp; revised criteria?</p> <p><b>Checked IgA def.</b></p> <ul style="list-style-type: none"> <li>Yes</li> </ul> <p><b>Studied tests</b> IgG-EMA IgA-EMA IgG-tTG IgA-tTG IgG-AGA IgA-AGA</p> <p><b>Methodology:</b></p> <ul style="list-style-type: none"> <li>IgG-EMA, ME; IgG-tTG, human serum albumin</li> </ul> <p><b>Cut-off:</b></p> <ul style="list-style-type: none"> <li>n/a</li> </ul>	<p><b>Celiac Group 1</b></p> <ul style="list-style-type: none"> <li>20 untreated CD (biopsy proven) with IgAD</li> <li>age/gender: n/a</li> </ul> <p><b>Celiac Group 2</b></p> <ul style="list-style-type: none"> <li>11 untreated CD without IgAD</li> <li>age/gender: n/a</li> </ul>	<p><b>Group 1:</b></p> <ul style="list-style-type: none"> <li>10 healthy IgAD controls on GD (healthy controls (not biopsied - not used)</li> <li>age: n/a</li> <li>gender: adults and children</li> </ul> <p><b>Group 2</b></p> <ul style="list-style-type: none"> <li>25 healthy controls on a GD, first degree relatives of CD pts, adult or paediatric pts with GI diseases i.e. mild protein intolerance, pstenteritis syndrome, Crohn's disease, ulcerative colitis, or giardiasis</li> <li>age/gender: n/a</li> </ul>	Celiac 1 vs control 1	20	0	0	10	100	100	100	100
					0	20	0	10	0	100	0	33.3
					20	0	2	8	100	80	90.1	100
					0	20	0	10	0	100	0	33.3
					20	0	0	10	100	100	100	100
					0	20	0	10	0	100	0	33.3

**Evidence Table 1 (cont'd): Included studies of the sensitivity and specificity of serology for CD**

Author, Year, Location	Study Design	Study Population	Control Population	Results								
				Comparison	4X4 table				Sens	Spec	PPV	NPV
					a	c	b	d				
Chan, 2001 Canada	<p><b>Publication type:</b></p> <ul style="list-style-type: none"> <li>journal</li> </ul> <p><b>Study design:</b></p> <ul style="list-style-type: none"> <li>case-control</li> </ul> <p><b>Ethnicity:</b></p> <ul style="list-style-type: none"> <li>n/a</li> </ul> <p><b>Population Type:</b></p> <ul style="list-style-type: none"> <li>suspected CD</li> </ul> <p><b>Reference test:</b></p> <ul style="list-style-type: none"> <li>Carey capsule or 4 to 6 duodenal biopsies at endoscopy</li> </ul> <p><b>First test:</b></p> <ul style="list-style-type: none"> <li>biopsy</li> </ul> <p><b>Controls biopsied:</b></p> <ul style="list-style-type: none"> <li>yes</li> </ul> <p><b>Biopsy criteria:</b> Villous atrophy, crypt hyperplasia, increase lymphocytes</p> <p><b>Checked IgA def.</b></p> <ul style="list-style-type: none"> <li>Yes</li> </ul> <p><b>Studied tests</b> IgA-EMA; IgA-tTG</p> <p><b>Methodology:</b></p> <ul style="list-style-type: none"> <li>EMA-ME; IgA tTG ELISA GP liver</li> </ul> <p><b>Cut-off:</b></p> <ul style="list-style-type: none"> <li>EMA:≥1:10; tTG: &gt;20</li> </ul>	<p><b>Celiac Group 1</b></p> <ul style="list-style-type: none"> <li>9 untreated CD (biopsy + from a group of 77 children</li> <li>age: 2 mos -16 y</li> </ul> <p><b>Celiac Group 2</b></p> <ul style="list-style-type: none"> <li>12 suspected CD with DM from a group of 16 DMs</li> <li>age: 3-18Y</li> </ul> <p><b>Celiac Group 3</b></p> <ul style="list-style-type: none"> <li>2 IgAD pts, one biopsy positive, (excluded in the analysis)</li> </ul>	<p><b>Group 1:</b></p> <ul style="list-style-type: none"> <li>62 disease controls with negative biopsy with abdominal pain, diarrhea, failure to thrive/short stature, family history of CD, Crohn's disease, vomiting, abdominal distension, ulcerative colitis, autoimmune thyroiditis/short stature, trisomy, (from a total of 77)</li> <li>age 2 mos to 16 y</li> </ul> <p><b>Group 2</b></p> <ul style="list-style-type: none"> <li>2 DM from a group of 16 DMs</li> </ul>	celiac 1 vs control 1	8 8	1 1	2 4	64 62	89 89	97 94	80 67	98 98

**Evidence Table 1 (cont'd): Included studies of the sensitivity and specificity of serology for CD**

Author, Year, Location	Study Design	Study Population	Control Population	Results								
				Comparison	4X4 table				Sens	Spec	PPV	NPV
					a	c	b	d				
Chartrand 1997 Canada	<b>Publication type:</b> <ul style="list-style-type: none"> <li>journal</li> </ul> <b>Study design:</b> <ul style="list-style-type: none"> <li>cohort</li> </ul> <b>Ethnicity:</b> <ul style="list-style-type: none"> <li>n/a</li> </ul> <b>Population Type:</b> <ul style="list-style-type: none"> <li>suspected CD</li> </ul> <b>Reference test:</b> <ul style="list-style-type: none"> <li>Biopsy - endoscopic</li> </ul> <b>First test:</b> <ul style="list-style-type: none"> <li>biopsy</li> </ul> <b>Controls biopsied:</b> <ul style="list-style-type: none"> <li>yes</li> </ul> <b>Biopsy criteria:</b> ESPGAN - with flat mucosal biopsy <b>Checked IgA def.</b> <ul style="list-style-type: none"> <li>yes - 2 of false negatives were IgA def</li> </ul> <b>Studied tests</b> IgA-AGA IgG-AGA IgG or IgA <b>Methodology:</b> <ul style="list-style-type: none"> <li>ELISA</li> </ul> <b>Cut-off:</b> <ul style="list-style-type: none"> <li>0.25 for IgA, 0.3 for IgG (optical density)</li> </ul>	<b>Celiac Group 1</b> <ul style="list-style-type: none"> <li>30 of 176 children suspected of CD</li> <li>mean age: 5.2; range 0.5-18;</li> <li>% F: n/r</li> </ul>	<b>Group 1:</b> <ul style="list-style-type: none"> <li>146 with suspected CD - biopsy excluded</li> <li>mean age: n/r</li> <li>% F: n/r</li> </ul>	Celiac 1 vs Control	24 25 28	6 5 2	12 31 42	134 115 104	80 83 93	92 79 71	67 45 43	96 96 98

**Evidence Table 1 (cont'd): Included studies of the sensitivity and specificity of serology for CD**

Author, Year, Location	Study Design	Study Population	Control Population	Results								
				Comparison	4X4 table				Sens	Spec	PPV	NPV
					a	c	b	d				
Chirido 1999 Argentina	<b>Publication type:</b> <ul style="list-style-type: none"> <li>journal</li> </ul> <b>Study design:</b> <ul style="list-style-type: none"> <li>cohort</li> </ul> <b>Ethnicity:</b> <ul style="list-style-type: none"> <li>n/a</li> </ul> <b>Population Type:</b> <ul style="list-style-type: none"> <li>suspected CD</li> </ul> <b>Reference test:</b> <ul style="list-style-type: none"> <li>n/r</li> </ul> <b>First test:</b> <ul style="list-style-type: none"> <li>biopsy</li> </ul> <b>Controls biopsied:</b> <ul style="list-style-type: none"> <li>yes</li> </ul> <b>Biopsy criteria:</b> Total or subtotal VA <b>Checked IgA def.</b> <ul style="list-style-type: none"> <li>n/a</li> </ul> <b>Studied tests</b> IgG commercial gliadin; IgG ethanolic extract; IgG ω-gliadins ; IgA commercial gliadin; IgA ethanolic extract; IgA IgG ω-Gliadins <b>Methodology:</b> <ul style="list-style-type: none"> <li>ELISA</li> </ul> <b>Cut-off:</b> <ul style="list-style-type: none"> <li>n/r</li> </ul>	<b>Celiac Group 1</b> <ul style="list-style-type: none"> <li>28 pts, biopsy proven untreated</li> <li>mean age: 7 y; range 13 mos-14 y</li> <li>% F: 15 (54%)</li> </ul>	<b>Group 1:</b> <ul style="list-style-type: none"> <li>31 disease controls; chronic diarrhea, short stature, abdominal distension</li> <li>mean age: 5.4 y, 2-12 y</li> <li>13 F, 18 M</li> </ul>	Celiac 1 vs Control	24 23 25 21 18 24	4 5 3 7 10 4	6 8 5 4 3 1	25 23 26 27 28 30	85.7 82.1 89.3 75 64.3 85.7	80.6 74.2 83.9 87.1 90.3 96.8	80 74 83 84 86 96	86 82 90 80 74 88

**Evidence Table 1 (cont'd): Included studies of the sensitivity and specificity of serology for CD**

Author, Year, Location	Study Design	Study Population	Control Population	Results								
				Comparison	4X4 table				Sens	Spec	PPV	NPV
					a	c	b	d				
Chirido 2000 Argentina	<p><b>Publication type:</b></p> <ul style="list-style-type: none"> <li>journal</li> </ul> <p><b>Study design:</b></p> <ul style="list-style-type: none"> <li>case control</li> </ul> <p><b>Ethnicity:</b></p> <ul style="list-style-type: none"> <li>n/a</li> </ul> <p><b>Population Type:</b></p> <ul style="list-style-type: none"> <li>n/a</li> </ul> <p><b>Reference test:</b></p> <p>Intestinal biopsy</p> <p><b>First test:</b></p> <ul style="list-style-type: none"> <li>biopsy</li> </ul> <p><b>Controls biopsied:</b></p> <ul style="list-style-type: none"> <li>only group 3</li> </ul> <p><b>Biopsy criteria:</b></p> <p>ESPGAN</p> <p><b>Checked IgA def.</b></p> <ul style="list-style-type: none"> <li>Yes</li> </ul> <p><b>Studied tests</b></p> <p>IgA w-AGA; IgG w-AGA; not a commercial kit (not used) IgA-EMA (used)</p> <p><b>Methodology:</b></p> <ul style="list-style-type: none"> <li>IgA-EMA-ME IF</li> </ul> <p><b>Cut-off:</b></p> <ul style="list-style-type: none"> <li>cut-off value for each antigen by using the same set of samples. Five control samples used as reference to normalize the day-to-day variation</li> </ul>	<p><b>Celiac Group 1</b></p> <ul style="list-style-type: none"> <li>105 untreated CD pts (biopsy proven)</li> <li>mean age: 6.5 y; range 16 mos-15 y</li> <li>% F: n/r</li> </ul>	<p><b>Group 1:</b></p> <ul style="list-style-type: none"> <li>45 healthy controls</li> <li>mean age 8.5 y; range 3-14 y</li> </ul> <p><b>Group 2:</b></p> <ul style="list-style-type: none"> <li>36 healthy blood donors</li> <li>mean age 36, range 22-45 y</li> </ul> <p><b>Group 3:</b></p> <ul style="list-style-type: none"> <li>46 biopsy negative disease control; presenting with short stature, chronic diarrhoea, parasitic infection</li> <li>mean age 5.2 y; range 1.5-14 y this group used for analysis</li> </ul> <p><b>Group 4:</b></p> <ul style="list-style-type: none"> <li>27 disease controls with Crohn's disease, ulcerative colitis, or Helicobacter pylori infection</li> </ul>	Celiac 1 vs control 3	94 100 97	11 5 8	5 9 0	41 37 46	89.5 95.2 92.4	89.1 80.4 100	94.9 91.7 100	78.8 88.1 85.2

**Evidence Table 1 (cont'd): Included studies of the sensitivity and specificity of serology for CD**

Author, Year, Location	Study Design	Study Population	Control Population	Results								
				Comparison	4X4 table				Sens	Spec	PPV	NPV
					a	c	b	d				
Dahele 2001 Scotland	<p><b>Publication type:</b></p> <ul style="list-style-type: none"> <li>journal</li> </ul> <p><b>Study design:</b></p> <ul style="list-style-type: none"> <li>case control</li> </ul> <p><b>Ethnicity:</b></p> <ul style="list-style-type: none"> <li>n/a</li> </ul> <p><b>Population Type:</b></p> <ul style="list-style-type: none"> <li>suspected CD</li> </ul> <p><b>Reference test:</b> duodenal biopsy</p> <p><b>First test:</b></p> <ul style="list-style-type: none"> <li>biopsy</li> </ul> <p><b>Controls biopsied:</b></p> <ul style="list-style-type: none"> <li>yes</li> </ul> <p><b>Biopsy criteria:</b> Included partial VA or greater</p> <p><b>Checked IgA def.</b></p> <ul style="list-style-type: none"> <li>Yes</li> </ul> <p><b>Studied tests</b> IgA AGA; IgG AGA; IgA EMA; IgA tTG</p> <p><b>Methodology:</b></p> <ul style="list-style-type: none"> <li>IgA AGA, ELISA; IgG-AGA, ELISA; IgA-EMA, HU; IgA-tTG ELISA GP liver</li> </ul> <p><b>Cut-off:</b></p> <ul style="list-style-type: none"> <li>for IgA &amp; IgG AGA: <math>\geq 30</math> unit/mL &amp; <math>\geq 45</math> units/mL, respectively</li> </ul>	<p><b>Celiac Group 1</b></p> <ul style="list-style-type: none"> <li>53 untreated CD pts (biopsy proven)</li> <li>median age 51 y; range 22-77 y</li> <li>39 F; 14 M</li> </ul>	<p><b>Group 1:</b></p> <ul style="list-style-type: none"> <li>65 control pts</li> <li>median age: 45 y; range 17-90 y</li> <li>46 F; 19 M</li> </ul>	Celiac 1 vs Control 1	34 44 40 35;	19 8 13 18	10 14 0 3	55 51 65 62	64 83 75 66	85 78 100 92	77 76 100 92	74 86 83 78

**Evidence Table 1 (cont'd): Included studies of the sensitivity and specificity of serology for CD**

Author, Year, Location	Study Design	Study Population	Control Population	Results								
				Comparison	4X4 table				Sens	Spec	PPV	NPV
					a	c	b	d				
Dahele 2001 Scotland  NB: update of Dahele et al., Dig Dis Sci; 2001;46: 214	<b>Publication type:</b> <ul style="list-style-type: none"> <li>journal</li> </ul> <b>Study design:</b> <ul style="list-style-type: none"> <li>case control</li> </ul> <b>Ethnicity:</b> <ul style="list-style-type: none"> <li>n/a</li> </ul> <b>Population Type:</b> <ul style="list-style-type: none"> <li>suspected CD</li> </ul> <b>Reference test:</b> duodenal biopsy <b>First test:</b> <ul style="list-style-type: none"> <li>biopsy</li> </ul> <b>Controls biopsied:</b> <ul style="list-style-type: none"> <li>yes</li> </ul> <b>Biopsy criteria:</b> Included 6 with IEL, rest partial VA or greater <b>Checked IgA def.</b> <ul style="list-style-type: none"> <li>yes - 2 IgA                              deficient excluded                              (114/116 CD used)</li> </ul> <b>Studied tests</b> IgA AGA; IgA AEM; IgA tTG <b>Methodology:</b> <ul style="list-style-type: none"> <li>IgA-AGA, ELISA;                              IgG-AGA, ELISA;                              IgA-EMA, HU; IgA                              tTG ELISA GP liver</li> </ul> <b>Cut-off:</b> <ul style="list-style-type: none"> <li>for IgA &amp; IgG AGA:                              ≥30 unit/mL &amp; ≥45                              units/mL,                              respectively</li> </ul>	<b>Celiac Group 1</b> <ul style="list-style-type: none"> <li>116 untreated                              CD pts (biopsy                              proven)</li> <li>median age:                              47 y; range 15-                              78 y</li> <li>74 F; 42 M</li> </ul>	<b>Group 1:</b> <ul style="list-style-type: none"> <li>65 control pts                              (suspected CD                              pts with normal                              biopsy)</li> <li>median age 45                              y; range 16-90 y</li> <li>45 F; 20 M</li> </ul>	Celiac 1 vs Control 1	69 99 92	45 15 22	9 0 2	56 65 63	61 87 81	86 100 97	88.5 100 97.9	42.7 81.3 74.1

Evidence Table 1 (cont'd): Included studies of the sensitivity and specificity of serology for CD

Author, Year, Location	Study Design	Study Population	Control Population	Results								
				Comparison	4X4 table				Sens	Spec	PPV	NPV
					a	c	b	d				
Di Leo 1999 Italy	<p><b>Publication type:</b></p> <ul style="list-style-type: none"> <li>journal</li> </ul> <p><b>Study design:</b></p> <ul style="list-style-type: none"> <li>case control</li> </ul> <p><b>Ethnicity:</b></p> <ul style="list-style-type: none"> <li>n/a</li> </ul> <p><b>Population Type:</b></p> <ul style="list-style-type: none"> <li>n/a</li> </ul> <p><b>Reference test:</b></p> <p>biopsy</p> <p><b>First test:</b></p> <ul style="list-style-type: none"> <li>biopsy</li> </ul> <p><b>Controls biopsied:</b></p> <ul style="list-style-type: none"> <li>yes</li> </ul> <p><b>Biopsy criteria:</b></p> <p>ESPGAN</p> <p><b>Checked IgA def.</b></p> <ul style="list-style-type: none"> <li>yes</li> </ul> <p><b>Studied tests</b></p> <p>EIA-IgA; EIA-IgG; DIG-ELISA IgA; DIG-ELISA IgG; ARA; human JAB-IgA; Rat JAB; EMA-IgA</p> <p><b>Methodology:</b></p> <ul style="list-style-type: none"> <li>for EIA-IgA and IgG-ELISA; for ARA-IF; for EMA, JAB-immunohistochemical method</li> </ul> <p><b>Cut-off:</b></p> <p>EIA IgA and IgG: 35 AU (arbitrary units) for children &lt;5 y; and 20 AU for children &gt;5 y; DIG-ELISA: IgA values &gt;13 mm and IgG values &gt;16 mm were considered positive in children &lt;5 y; IgA values &lt;11 mm and IgG values &gt;14 mm - in children &gt;5 y</p>	<p><b>Celiac Group 1</b></p> <ul style="list-style-type: none"> <li>45 untreated pts (biopsy proven untreated)</li> <li>mean age: 6.11 y; range 9 mos-17 y</li> <li>32 F, 13 M</li> </ul> <p><b>Celiac Group 2</b></p> <ul style="list-style-type: none"> <li>18 GDF pts (celiac on GFD)</li> <li>mean age: 13.2 y; range 3 y 8 mos-16 y 6 mos</li> <li>13 F, 5 M</li> </ul>	<p><b>Group 1:</b></p> <ul style="list-style-type: none"> <li>67 healthy controls</li> <li>mean age: 8 y. 9 mos; range 1 y. 4 mos-16 y. 9 mos</li> <li>43 F, 24 M</li> </ul>	group 1 vs control, EIA IgA	50	5	1	64	90.9	98.5		
				group 1 vs control, EIA IgG	53	2	20	45	96.4	69.2		
				group 1 vs control, DIG-ELISA IgA	50	5	2	63	90.9	96.9		
				group 1 vs control, DIS-ELISA IgA	48	7	9	56	87.3	86.2		
				group 1 vs control, ARA	48	6	18	47	88.9	72.3		
				group 1 vs control, Human JAB	55	0	18	47	100	72.3		
				group 1 vs control, RAT JAB	55	0	11	54	100	83.1		
				group 1 vs control, EMA	54	1	0	65	98.2	100		
				group 3 vs control, EIA IgA	20	1	1	64	95.5	98.5		
				group 3 vs control, EIA IgG	19	2	20	45	90.5	69.2		
				group 3 vs control, DIG-ELISA IgA	17	4	2	63	80.9	96.9		
				group 3 vs control, DIS-ELISA IgA	15	5	9	56	75	86.1		
				group 3 vs control, ARA	18	3	18	47	85.7	72.3		
				group 3 vs control, Human JAB	21	0	18	47	100	72.3		
group 3 vs control, RAT JAB	18	3	11	54	85.7	83						
group 3 vs control, EMA	19	2	0	65	90.5	100						

**Evidence Table 1 (cont'd): Included studies of the sensitivity and specificity of serology for CD**

Author, Year, Location	Study Design	Study Population	Control Population	Results								
				Comparison	4X4 table				Sens	Spec	PPV	NPV
					a	c	b	d				
Dickey 2001 Northern Ireland	<b>Publication type:</b> <ul style="list-style-type: none"> <li>• journal</li> </ul> <b>Study design:</b> <ul style="list-style-type: none"> <li>• case control</li> </ul> <b>Ethnicity:</b> <ul style="list-style-type: none"> <li>• n/a</li> </ul> <b>Population Type:</b> <ul style="list-style-type: none"> <li>• n/a</li> </ul> <b>Reference test:</b> <ul style="list-style-type: none"> <li>• n/a</li> </ul> <b>First test:</b> <ul style="list-style-type: none"> <li>• biopsy</li> </ul> <b>Controls biopsied:</b> <ul style="list-style-type: none"> <li>• yes</li> </ul> <b>Biopsy criteria:</b> VA <b>Checked IgA def.</b> <ul style="list-style-type: none"> <li>• no</li> </ul> <b>Studied tests</b> EMA (excluded); tTGA; EMA and/or tTGA <b>Methodology:</b> <ul style="list-style-type: none"> <li>•EMA=ME; tTGA, ELISA GP liver</li> </ul> <b>Cut-off:</b> >30 as positive	<b>Celiac Group 1</b> <ul style="list-style-type: none"> <li>• 73 untreated biopsy-proven CD pts</li> <li>• age 13-72 y</li> <li>• 45 F, 28 M</li> </ul>	<b>Group 1:</b> 58 disease controls; diarrhea, anaemia, family history of celiac and others	Celiac 1 vs Control 1	55 68	18 5	1 2	57 56	75.3 93.2	98.3 96.6	98.2 97.1	76.0 91.8

**Evidence Table 1 (cont'd): Included studies of the sensitivity and specificity of serology for CD**

Author, Year, Location	Study Design	Study Population	Control Population	Results								
				Comparison	4X4 table				Sens	Spec	PPV	NPV
					a	c	b	d				
Faith-Magnusson 1994 Sweden	<p><b>Publication type:</b></p> <ul style="list-style-type: none"> <li>journal</li> </ul> <p><b>Study design:</b></p> <ul style="list-style-type: none"> <li>cohort</li> </ul> <p><b>Ethnicity:</b></p> <ul style="list-style-type: none"> <li>n/a</li> </ul> <p><b>Population Type:</b></p> <ul style="list-style-type: none"> <li>suspected CD</li> </ul> <p><b>Reference test:</b></p> <ul style="list-style-type: none"> <li>Watson capsule or Stortz</li> </ul> <p><b>First test:</b></p> <ul style="list-style-type: none"> <li>biopsy</li> </ul> <p><b>Controls biopsied:</b></p> <ul style="list-style-type: none"> <li>yes</li> </ul> <p><b>Biopsy criteria:</b> ESPGAN+ Alexander grading IV, grade III to IV challenge</p> <p><b>Checked IgA def.</b></p> <ul style="list-style-type: none"> <li>no</li> </ul> <p><b>Studied tests</b> DIG - ELISA combined IgA &amp; IgG; ELISA combined IgA &amp; IgG</p> <p><b>Methodology:</b></p> <ul style="list-style-type: none"> <li>ELISA; DIG-ELISA</li> </ul> <p><b>Cut-off:</b> DIG ELISA (mm) combined IgA+IgG <math>\geq 6</math> and /or; <math>\geq 10</math>; <math>\geq 12</math>; <math>\geq 14</math>; <math>\geq 16</math>; ELISA (mm) for combined IgA+IgG <math>\geq 0.25</math>; and; <math>\geq 0.8</math>; <math>\geq 0.9</math>; <math>\geq 1.0</math>; <math>\geq 1.1</math></p>	<p><b>Celiac Group 1</b></p> <ul style="list-style-type: none"> <li>116 pts; biopsied twice; median time on GFD pre 2nd biopsy 13 mos (10-24 mos)</li> <li>age @ 1st biopsy median 13 mos, range 0.7-16.7 y, age @ 2nd biopsy 29 mos range 1.6-17.8 y</li> <li>73 F; 43 M</li> </ul>	<p><b>Group 1:</b></p> <ul style="list-style-type: none"> <li>199 disease controls; poor weight gain; diarrhea; stature</li> <li>median age 22 mos range 0.7-16.8 y</li> <li>105 F; 94 M</li> </ul>	Celiac 1 vs Control 1	n/r	n/r	n/r	n/r	98.1	27.8		
									95.2	39.5		
									91.4	70.5		
									88.6	92.3		
									93.3	64.6		
									88.7	75.8		
									88.7	82.3		
									88.7	93.5		

**Evidence Table 1 (cont'd): Included studies of the sensitivity and specificity of serology for CD**

Author, Year, Location	Study Design	Study Population	Control Population	Results								
				Comparison	4X4 table				Sens	Spec	PPV	NPV
					a	c	b	d				
Gilbert 2000 Canada	<b>Publication type:</b> <ul style="list-style-type: none"> <li>journal</li> </ul> <b>Study design:</b> <ul style="list-style-type: none"> <li>case control</li> </ul> <b>Ethnicity:</b> <ul style="list-style-type: none"> <li>n/a</li> </ul> <b>Population Type:</b> <ul style="list-style-type: none"> <li>n/r</li> </ul> <b>Reference test:</b> <ul style="list-style-type: none"> <li>biopsy</li> </ul> <b>First test:</b> <ul style="list-style-type: none"> <li>biopsy</li> </ul> <b>Controls biopsied:</b> <ul style="list-style-type: none"> <li>yes</li> </ul> <b>Biopsy criteria:</b> mild, moderate, severe VA <b>Checked IgA def.</b> <ul style="list-style-type: none"> <li>n/r</li> </ul> <b>Studied tests</b> IgA-EMA; IgA-tTG <b>Methodology:</b> <ul style="list-style-type: none"> <li>EMA-HU</li> <li>tTG- HR</li> </ul> <b>Cut-off:</b> EMA: ≥1:5; tTG: >400u	<b>Celiac Group 1</b> <ul style="list-style-type: none"> <li>21 CD adults</li> <li>age: n/r</li> <li>% F: n/r</li> </ul>	<b>Group 1:</b> <ul style="list-style-type: none"> <li>biopsied disease controls with CD excluded</li> <li>age: n/r</li> <li>% F: n/r</li> </ul>	Celiac 1 vs Control	21 20	0 1	0 0	42 42	100 95.2	100 100		

**Evidence Table 1 (cont'd): Included studies of the sensitivity and specificity of serology for CD**

Author, Year, Location	Study Design	Study Population	Control Population	Results								
				Comparison	4X4 table				Sens	Spec	PPV	NPV
					a	c	b	d				
Gonczi 1991 Australia	<b>Publication type:</b> <ul style="list-style-type: none"> <li>journal</li> </ul> <b>Study design:</b> <ul style="list-style-type: none"> <li>cohort</li> </ul> <b>Ethnicity:</b> <ul style="list-style-type: none"> <li>n/r</li> </ul> <b>Population Type:</b> <ul style="list-style-type: none"> <li>suspected celiac; single institution 1977-1983; mean age 3.97 (range 1 mos-16 y)</li> </ul> <b>Reference test:</b> <ul style="list-style-type: none"> <li>biopsy technique not reported (likely capsule)</li> </ul> <b>First test:</b> <ul style="list-style-type: none"> <li>biopsy</li> </ul> <b>Controls biopsied:</b> <ul style="list-style-type: none"> <li>yes</li> </ul> <b>Biopsy criteria:</b> ESPGAN no details on biopsy findings <b>Checked IgA def.</b> <ul style="list-style-type: none"> <li>yes - 1 CD child</li> </ul> <b>Studied tests</b> IgA AGA; IgG-AGA <b>Methodology:</b> <ul style="list-style-type: none"> <li>ELISA mean + 2 SD; IgA 25 AU; IgG 46</li> </ul> <b>Cut-off:</b> 20.2%	<b>Celiac Group 1</b> <ul style="list-style-type: none"> <li>20 children untreated biopsy-proven CD</li> <li>age: n/r</li> <li>% F: n/r</li> </ul> <b>Celiac Group 2</b> <ul style="list-style-type: none"> <li>25 untreated adults biopsy-proven CD</li> <li>age: n/r</li> <li>% F: n/r</li> </ul>	<b>Group 1:</b> <ul style="list-style-type: none"> <li>79 children biopsy-negative controls w sx</li> <li>age: n/r</li> <li>% F: n/r</li> </ul> <b>Group 2:</b> <ul style="list-style-type: none"> <li>34 adult disease controls</li> <li>age: n/r</li> <li>% F: n/r</li> </ul>	celiac 1 vs control 1-IgA-AGA	19	1	6	73	95	92.4	76	98.6
				celiac 1 vs control 1-IgG – AGA	20	0	6	73	100	92.4	76.9	100
				celiac 1 vs control 1-IgA+IgG	20	0	1	78	100	98.7	95.2	98.7
				celiac 2 vs control 2-IgA-AGA	23	2	4	30	92	88.2	85.2	93.8
				celiac 2 vs control 2-IgG – AGA	25	0	11	23	100	69.7	69.4	100
				celiac 2 vs control 2-IgA+IgG	25	0	1	33	100;	97.1	96.2	100

**Evidence Table 1 (cont'd): Included studies of the sensitivity and specificity of serology for CD**

Author, Year, Location	Study Design	Study Population	Control Population	Results								
				Comparison	4X4 table				Sens	Spec	PPV	NPV
					a	c	b	d				
Hallstrom 1989 Finland	<b>Publication type:</b> <ul style="list-style-type: none"> <li>journal</li> </ul> <b>Study design:</b> <ul style="list-style-type: none"> <li>case control</li> </ul> <b>Ethnicity:</b> <ul style="list-style-type: none"> <li>n/r</li> </ul> <b>Population Type:</b> <ul style="list-style-type: none"> <li>n/a</li> </ul> <b>Reference test:</b> <ul style="list-style-type: none"> <li>biopsy</li> </ul> <b>First test:</b> <ul style="list-style-type: none"> <li>biopsy</li> </ul> <b>Controls biopsied:</b> <ul style="list-style-type: none"> <li>yes</li> </ul> <b>Biopsy criteria:</b> Flat mucosa <b>Checked IgA def.</b> <ul style="list-style-type: none"> <li>yes</li> </ul> <b>Studied tests</b> IgA - EMA <b>Methodology:</b> <ul style="list-style-type: none"> <li>EMA-ME</li> </ul> <b>Cut-off:</b> n/r	<b>Celiac Group 1</b> <ul style="list-style-type: none"> <li>32 untreated adult CD pts</li> <li>mean age 36 y; range 18-63 y)</li> <li>% F: n/r</li> </ul> <b>Celiac Group 2</b> <ul style="list-style-type: none"> <li>18 children with untreated CD</li> <li>mean age 1; range 2-16</li> <li>% F: n/r</li> </ul>	<b>Group 1:</b> <ul style="list-style-type: none"> <li>24 non-CD children by biopsy, with various abdominal symptoms</li> <li>mean age 7.5 y; range 1-15</li> <li>% F: n/r</li> </ul>	celiac 1 vs control 1	29	3	0	24	90.6	100	100	88.9
				celiac 2 vs control 1	18	0	0	24	100	100	100	100

**Evidence Table 1 (cont'd): Included studies of the sensitivity and specificity of serology for CD**

Author, Year, Location	Study Design	Study Population	Control Population	Results								
				Comparison	4X4 table				Sens	Spec	PPV	NPV
					a	c	b	d				
Hansson 2000 Sweden	<p><b>Publication type:</b></p> <ul style="list-style-type: none"> <li>journal</li> </ul> <p><b>Study design:</b></p> <ul style="list-style-type: none"> <li>case control</li> </ul> <p><b>Ethnicity:</b></p> <ul style="list-style-type: none"> <li>n/r</li> </ul> <p><b>Population Type:</b></p> <ul style="list-style-type: none"> <li>n/a</li> </ul> <p><b>Reference test:</b></p> <ul style="list-style-type: none"> <li>n/r</li> </ul> <p><b>First test:</b></p> <ul style="list-style-type: none"> <li>serology test</li> </ul> <p><b>Controls biopsied:</b></p> <ul style="list-style-type: none"> <li>no</li> </ul> <p><b>Biopsy criteria:</b> ESPGAN</p> <p><b>Checked IgA def.</b></p> <ul style="list-style-type: none"> <li>no</li> </ul> <p><b>Studied tests</b> IgA EMA; IgA serum; IgG AGA; IgA tTG; human erythrocyte tTG; tTG GP liver</p> <p><b>Methodology:</b></p> <ul style="list-style-type: none"> <li>IgA-EMA-ME; tTG, ELISA (human)</li> </ul> <p><b>Cut-off:</b> n/r</p>	<p><b>Celiac Group 1</b></p> <ul style="list-style-type: none"> <li>22 untreated pts (biopsy proven CD)</li> <li>median age 3 y; range 1-16 y</li> <li>14 F, 8 M</li> </ul>	<p><b>Group 1:</b></p> <ul style="list-style-type: none"> <li>23 disease controls (note: no biopsy for the 5/23 control group); GI symptoms; inflammatory bowel disease; cow's milk protein intolerance; food intolerance; miscellaneous GI disorders</li> <li>17 confirmed biopsy negatives</li> <li>median age: 6 y, range 1-16 y</li> <li>9 F, 13 M</li> </ul>	Celiac 1 vs Control 1	21	1	0	23	95.5	100	100	95.8
					21	1	6	17	95.5	73.9	77.8	94.4
					18	4	4	19	81.8	82.6	81.8	82.6
					21	1	1	22	95.5	95.7	95.5	95.7
					22	0	0	23	100	100	100	100
					20	2	1	22	90.9	95.7	95.2	91.7

**Evidence Table 1 (cont'd): Included studies of the sensitivity and specificity of serology for CD**

Author, Year, Location	Study Design	Study Population	Control Population	Results								
				Comparison	4X4 table				Sens	Spec	PPV	NPV
					a	c	b	d				
Iltanen 1999 Finland	<p><b>Publication type:</b></p> <ul style="list-style-type: none"> <li>journal</li> </ul> <p><b>Study design:</b></p> <ul style="list-style-type: none"> <li>cohort</li> </ul> <p><b>Ethnicity:</b></p> <ul style="list-style-type: none"> <li>n/r</li> </ul> <p><b>Population Type:</b></p> <ul style="list-style-type: none"> <li>78 children with suspected CD</li> </ul> <p><b>Reference test:</b></p> <ul style="list-style-type: none"> <li>biopsy</li> </ul> <p><b>First test:</b></p> <ul style="list-style-type: none"> <li>biopsy</li> </ul> <p><b>Controls biopsied:</b></p> <ul style="list-style-type: none"> <li>yes</li> </ul> <p><b>Biopsy criteria:</b> ESPGAN - CD confirmed at follow-up</p> <p><b>Checked IgA def.</b></p> <ul style="list-style-type: none"> <li>n/r</li> </ul> <p><b>Studied tests</b> IgA - EMA</p> <p><b>Methodology:</b></p> <ul style="list-style-type: none"> <li>HU - IF</li> </ul> <p><b>Cut-off:</b> &gt;=1:5</p>	<p><b>Celiac Group 1</b></p> <ul style="list-style-type: none"> <li>23 CD children out of 78 evaluated for suspected CD</li> <li>median age: overall group 6.5; range 0.5-15.8</li> <li>% F: n/r</li> </ul>	<p><b>Group 1:</b></p> <ul style="list-style-type: none"> <li>57 biopsy negative children who were suspected of CD</li> <li>age: n/r</li> <li>% F: n/r</li> </ul>	celiac 1 vs control 1	20	0	13	44	100	77.1	60.1	100

**Evidence Table 1 (cont'd): Included studies of the sensitivity and specificity of serology for CD**

Author, Year, Location	Study Design	Study Population	Control Population	Results								
				Comparison	4X4 table				Sens	Spec	PPV	NPV
					a	c	b	d				
Kaukinen, 2000 Finland	<b>Publication type:</b> <ul style="list-style-type: none"> <li>journal</li> </ul> <b>Study design:</b> <ul style="list-style-type: none"> <li>cohort</li> </ul> <b>Ethnicity:</b> <ul style="list-style-type: none"> <li>n/r</li> </ul> <b>Population Type:</b> <ul style="list-style-type: none"> <li>pts suspected of CD with self reported symptoms upon gluten ingestion</li> </ul> <b>Reference test:</b> <ul style="list-style-type: none"> <li>biopsy</li> </ul> <b>First test:</b> <ul style="list-style-type: none"> <li>simultaneous</li> </ul> <b>Controls biopsied:</b> <ul style="list-style-type: none"> <li>yes</li> </ul> <b>Biopsy criteria:</b> Villous height to crypt ration <2.0; IEL and HLA also tested <b>Checked IgA def.</b> <ul style="list-style-type: none"> <li>n/r</li> </ul> <b>Studied tests</b> IgA EMA; IgA htTg; IgA AGA; IgG AGA <b>Methodology:</b> <ul style="list-style-type: none"> <li>IF-EMA-HU; Human recombinant TTG ELISA (from Enova Diagnostics web site); AGA ELISA</li> </ul> <b>Cut-off:</b> ≥1:5; ≥20 U; IgA-AGA ≥0.2 EU/mL; IgG-AGA ≥10 EU/mL	<b>Celiac Group 1</b> <ul style="list-style-type: none"> <li>93 pts with self-reported suffering from GI symptoms upon gluten ingestion</li> <li>mean age: 39 y; range 17-73 y; 9 CD pts</li> <li>% F: 70; 23 M</li> </ul>	<b>Group 1:</b> <ul style="list-style-type: none"> <li>84 of 93 with negative biopsy</li> <li>age: n/r</li> <li>% F: n/r</li> </ul>	celiac 1 vs control 1	7	1	0	84	88.9	100	100	98.9
					8	0	0	84	100	100	100	100

**Evidence Table 1 (cont'd): Included studies of the sensitivity and specificity of serology for CD**

Author, Year, Location	Study Design	Study Population	Control Population	Results								
				Comparison	4X4 table				Sens	Spec	PPV	NPV
					a	c	b	d				
Kolho, 1997 Finland	<p><b>Publication type:</b></p> <ul style="list-style-type: none"> <li>journal</li> </ul> <p><b>Study design:</b></p> <ul style="list-style-type: none"> <li>case control</li> </ul> <p><b>Ethnicity:</b></p> <ul style="list-style-type: none"> <li>n/r</li> </ul> <p><b>Population Type:</b></p> <ul style="list-style-type: none"> <li>suspected CD; or reason to exclude CD</li> </ul> <p><b>Reference test:</b></p> <ul style="list-style-type: none"> <li>Biopsy either ingestible capsule technique or endoscopically</li> </ul> <p><b>First test:</b></p> <ul style="list-style-type: none"> <li>biopsy</li> </ul> <p><b>Controls biopsied:</b></p> <ul style="list-style-type: none"> <li>yes</li> </ul> <p><b>Biopsy criteria:</b> revised ESPGAN</p> <p><b>Checked IgA def.</b></p> <ul style="list-style-type: none"> <li>yes – in pts with neg serology</li> </ul> <p><b>Studied tests</b> EMA (HU); EMA (ME)</p> <p><b>Methodology:</b></p> <ul style="list-style-type: none"> <li>EMA-ME</li> <li>EMA-HU</li> </ul> <p><b>Cut-off:</b> cut off level was 20% for class IgA and IgG antibodies</p>	<p><b>Celiac Group 1</b></p> <ul style="list-style-type: none"> <li>53 pts newly diagnosed CD (biopsy proven)</li> <li>mean age: 6.46 y (range 0.77-19.7 y)</li> <li>gender: n/r</li> </ul> <p><b>Celiac Group 2</b></p> <ul style="list-style-type: none"> <li>22 pts with CD in remission (CD on GFD)</li> <li>age (range 0.77-19.7 y)</li> <li>gender: n/r</li> </ul> <p><b>Celiac Group 3</b></p> <ul style="list-style-type: none"> <li>13 CD pts gluten challenge</li> <li>age range: 0.77-19.7 y</li> <li>gender: n/r</li> </ul>	<p><b>Group 1:</b></p> <ul style="list-style-type: none"> <li>48 pts children/adole scents GI complaints; disturbed growth or elevated AGA titres (normal biopsy)</li> <li>median age 5.39 y (age range 0.63-13.3 y)</li> <li>% F: n/r</li> </ul> <p><b>Group 2:</b></p> <ul style="list-style-type: none"> <li>20 pts with cow's milk sensitivity enteropathy n/r</li> </ul> <p><b>Group 3:</b></p> <ul style="list-style-type: none"> <li>23 pts with inflammatory bowel disease n/r</li> </ul> <p><b>Group 4:</b></p> <ul style="list-style-type: none"> <li>23 pts with diabetes mellitus n/r</li> </ul>	<p>CD untreated and on gluten challenge</p> <p>(group 1) vs control groups 1-4 (combined in the study)</p> <p>CD gluten challenged vs control EMA</p>	50	3	0	114	95	100	100	97
				50	3	0	114	95	100	100	97	
				13	0	0	13	100	100	100	100	
				13	0	0	13	100	100	100	100	

**Evidence Table 1 (cont'd): Included studies of the sensitivity and specificity of serology for CD**

Author, Year, Location	Study Design	Study Population	Control Population	Results								
				Comparison	4X4 table				Sens	Spec	PPV	NPV
					a	c	b	d				
Kumar, 1989 USA, Israel	<p><b>Publication type:</b></p> <ul style="list-style-type: none"> <li>journal</li> </ul> <p><b>Study design:</b></p> <ul style="list-style-type: none"> <li>relevant clinical population and control cases</li> </ul> <p><b>Ethnicity:</b></p> <ul style="list-style-type: none"> <li>n/r</li> </ul> <p><b>Population Type:</b></p> <ul style="list-style-type: none"> <li>suspected CD; asymptomatic family members</li> </ul> <p><b>Reference test:</b></p> <ul style="list-style-type: none"> <li>Crosby-Kugler capsule</li> </ul> <p><b>First test:</b></p> <ul style="list-style-type: none"> <li>biopsy</li> </ul> <p><b>Controls biopsied:</b></p> <ul style="list-style-type: none"> <li>yes</li> </ul> <p><b>Biopsy criteria:</b> ESPGAN + Townley</p> <p><b>Checked IgA def.</b></p> <ul style="list-style-type: none"> <li>no</li> </ul> <p><b>Studied tests</b> IgA-EMA</p> <p><b>Methodology:</b></p> <ul style="list-style-type: none"> <li>IgA EMA, IF studies; ME</li> </ul> <p><b>Cut-off:</b> n/r</p>	<p><b>Celiac Group 1</b></p> <ul style="list-style-type: none"> <li>38 children (biopsy proven); untreated CD</li> <li>age: n/r</li> <li>gender n/r</li> </ul> <p><b>Celiac Group 2</b></p> <ul style="list-style-type: none"> <li>37 pts; GFD treated.</li> <li>age: n/r</li> <li>gender: n/r</li> </ul> <p><b>Celiac Group 3</b></p> <ul style="list-style-type: none"> <li>30 suspected CD; on gluten diet</li> </ul> <p><b>Celiac Group 4</b></p> <ul style="list-style-type: none"> <li>30 suspected cd on GFD</li> </ul>	<p><b>Group 1:</b></p> <ul style="list-style-type: none"> <li>106 asymptomatic family members</li> <li>age &amp; gender: n/r</li> </ul> <p><b>Group 2:</b></p> <ul style="list-style-type: none"> <li>52 children with chronic diarrhea; 30 ulcerative colitis; 65 Crohn's disease; 21 liver disease; 34 recurrent abdominal pain</li> <li>age &amp; gender: n/r</li> </ul> <p><b>Group 3:</b></p> <ul style="list-style-type: none"> <li>87 healthy subjects</li> <li>age &amp; gender: n/r</li> </ul>	CD untreated and suspected untreated and 8 biopsy + family members vs Control 1 (106-8), 2, 3	73	3	11	376	96	89	87	96.7

**Evidence Table 1 (cont'd): Included studies of the sensitivity and specificity of serology for CD**

Author, Year, Location	Study Design	Study Population	Control Population	Results														
				Comparison	4X4 table				Sens	Spec	PPV	NPV						
					a	c	b	d										
Ladinsler, 1994 Italy	<p><b>Publication type:</b></p> <ul style="list-style-type: none"> <li>journal</li> </ul> <p><b>Study design:</b></p> <ul style="list-style-type: none"> <li>case control</li> </ul> <p><b>Ethnicity:</b></p> <ul style="list-style-type: none"> <li>n/r</li> </ul> <p><b>Population Type:</b></p> <ul style="list-style-type: none"> <li>n/r</li> </ul> <p><b>Reference test:</b></p> <ul style="list-style-type: none"> <li>endoscopic biopsy; IgA EMA</li> </ul> <p><b>First test:</b></p> <ul style="list-style-type: none"> <li>biopsy</li> </ul> <p><b>Controls biopsied:</b></p> <ul style="list-style-type: none"> <li>yes</li> </ul> <p><b>Biopsy criteria:</b> revised ESPGAN</p> <p><b>Checked IgA def.</b></p> <ul style="list-style-type: none"> <li>IgA deficiency excluded by serum testing</li> </ul> <p><b>Studied tests</b> IgA EMA</p> <p><b>Methodology:</b></p> <ul style="list-style-type: none"> <li>IgA-EMA, IF studies HU smooth muscle; IgA-EMA, IF studies ME</li> </ul> <p><b>Cut-off:</b> n/r</p>	<p><b>Celiac Group 1</b></p> <ul style="list-style-type: none"> <li>20 biopsy-proven CD pts</li> <li>mean age: 35 y (range 5-68)</li> <li>% F: 67%; 20 on gluten-containing diet</li> </ul> <p><b>Celiac Group 2</b></p> <ul style="list-style-type: none"> <li>10 pts GFD (subset of original 30).</li> <li>age: n/r</li> <li>gender: n/r</li> </ul>	<p><b>Group 1:</b></p> <ul style="list-style-type: none"> <li>35 pts (CD on GFD) with positive AGA serum samples no histological abnormalities</li> <li>Mean age: 40 y (range 3-65)</li> <li>% F: 57%</li> </ul> <p><b>Group 2:</b></p> <ul style="list-style-type: none"> <li>40 non-celiac pts without GI disorder with AGA below average range (IgA&lt;5 and IgG &lt;15)</li> <li>mean age: 37 y (range 5-65)</li> <li>% F: 50%</li> </ul>	<p>20 active untreated cases vs control group; IgA-EMA (HU)</p> <p>20 active untreated cases vs control group IgA-EMA (ME)</p>	20	18	0	2	0	0	75	75	100	90	100	100	100	98

**Evidence Table 1 (cont'd): Included studies of the sensitivity and specificity of serology for CD**

Author, Year, Location	Study Design	Study Population	Control Population	Results								
				Comparison	4X4 table				Sens	Spec	PPV	NPV
					a	c	b	d				
Lerner, 1994 USA, Israel  NB: duplicate of Pacht et al., Isr J Med Sci 1995;31:21 8 (used data from Lerner et al, 1994 since more complete and larger control group)	<b>Publication type:</b> <ul style="list-style-type: none"> <li>journal</li> </ul> <b>Study design:</b> <ul style="list-style-type: none"> <li>case control</li> </ul> <b>Ethnicity:</b> <ul style="list-style-type: none"> <li>n/r</li> </ul> <b>Population Type:</b> <ul style="list-style-type: none"> <li>n/r</li> </ul> <b>Reference test:</b> <ul style="list-style-type: none"> <li>Crosby capsule</li> </ul> <b>First test:</b> <ul style="list-style-type: none"> <li>simultaneous Biopsy &amp; serology</li> </ul> <b>Controls biopsied:</b> <ul style="list-style-type: none"> <li>yes</li> </ul> <b>Biopsy criteria:</b> criteria of Townley modified by Ingkaran <b>Checked IgA def.</b> <ul style="list-style-type: none"> <li>no</li> </ul> <b>Studied tests</b> IgA -AGA; IgG-AGA; IgA-ARA (rat kidney); IgA-ARA (mouse kidney); IgA-EMA ME <b>Methodology:</b> AGA=ELISA; ARA=IF rat & mouse kidney; EMA=IF ME <b>Cut-off:</b> ELISA 2 SD above the mean of normal value considered positive	<b>Celiac Group 1</b> <ul style="list-style-type: none"> <li>34 biopsy proven CD</li> <li>mean age: 9.6 (range 1.7-17 y)</li> <li>male:female: 0.6:1.0</li> </ul>	<b>Group 1:</b> <ul style="list-style-type: none"> <li>9 pts abnormal biopsy pathological control grade II-IV atrophy; (3) Giardia lamblia (3) protracted diarrhea (1) Crohn's (1) HSP (1) intestinal lymphangectasis (1) hypogammaglobulinaemia</li> <li>mean age 9.3 y (range 2-16 y)</li> <li>male:female 1.2:1</li> </ul> <b>Group 2:</b> <ul style="list-style-type: none"> <li>32 pts with normal intestinal morphology (GCD)</li> <li>mean age: 8.4 y (range 1-16 y)</li> <li>male:female 0.9:1</li> </ul>	CD1 vs CO IgA-AGA					52	94	87	74
				CD1 vs CO IgG-AGA					88	92	88	92
				CD1 vs CO IgA-ARA-r					65	100	100	77
				CD1vs CO IgA-ARA-m					53	100	100	71
				CD1 vs CO IgA-EMA;					97	98	97	98

Evidence Table 1 (cont'd): Included studies of the sensitivity and specificity of serology for CD

Author, Year, Location	Study Design	Study Population	Control Population	Results									
				Comparison	4X4 table				Sens	Spec	PPV	NPV	
					a	c	b	d					
Lindberg, 1985 Sweden  NB: duplicate Jardas et al., Pol J Immunol 1994;19:49	<b>Publication type:</b> <ul style="list-style-type: none"> <li>journal</li> </ul> <b>Study design:</b> <ul style="list-style-type: none"> <li>cohort</li> </ul> <b>Ethnicity:</b> <ul style="list-style-type: none"> <li>n/r</li> </ul> <b>Population Type:</b> <ul style="list-style-type: none"> <li>suspected malabsorption</li> </ul> <b>Reference test:</b> <ul style="list-style-type: none"> <li>biopsy duodenojejunal flexure Watson pediatric capsule EMA</li> </ul> <b>First test:</b> <ul style="list-style-type: none"> <li>biopsy &amp; serology simultaneous (sera collected ± 2 weeks of biopsy)</li> </ul> <b>Controls biopsied:</b> <ul style="list-style-type: none"> <li>yes</li> </ul> <b>Biopsy criteria:</b> ESPGAN and Alexander grades; reported sensitivity and specificity for pts with severely damaged mucosa	<b>Celiac Group 1</b> <ul style="list-style-type: none"> <li>25 pts untreated CD; 29 pts probable CD</li> <li>mean age: 12 months (range 7-132 mos)</li> <li>gender: n/r</li> <li>58 pts in total used (with severely damaged mucosa)</li> </ul> <b>Celiac Group 2</b> <ul style="list-style-type: none"> <li>32 pts CD treated GFD (2nd biopsy)</li> <li>mean age: 30 mos (range 18-168 mos)</li> <li>gender: n/r</li> </ul> <b>Celiac Group 3</b> <ul style="list-style-type: none"> <li>37pts confirmed CD challenged period with gluten</li> <li>mean age: 36 mos (range 16-192 mos)</li> <li>gender: n/r</li> </ul>	<b>Group 1:</b> <ul style="list-style-type: none"> <li>121 pts with other GI disorders i.e., unspecified diarrhea, cow's milk protein intolerance, multiple food allergies, post infectious diarrhea, diarrhea caused by Yersinia enterocolitica</li> <li>mean age 14 mos (7-130 mos)</li> <li>gender: n/r</li> </ul> <b>Group 2:</b> <ul style="list-style-type: none"> <li>23 pts short stature no GI symptoms</li> <li>mean age: 48 mos (range 12-180 mos)</li> <li>gender: n/r</li> </ul> NB: the study combined control 1 and control 2 (132 pts)	Author reports groups as:  CD severely damaged intestinal mucosa vs control IgA AGA  CD severely damaged intestinal mucosa vs control IgG AGA  CD severely damaged intestinal mucosa vs control IgA/IgG AGA					88	88			
									93	89			
										97	83		

**Evidence Table 1 (cont'd): Included studies of the sensitivity and specificity of serology for CD**

Author, Year, Location	Study Design	Study Population	Control Population	Results								
				Comparison	4X4 table				Sens	Spec	PPV	NPV
					a	c	b	d				
Lindquist, 1994 Sweden	<p><b>Publication type:</b></p> <ul style="list-style-type: none"> <li>journal</li> </ul> <p><b>Study design:</b></p> <ul style="list-style-type: none"> <li>cohort</li> </ul> <p><b>Ethnicity:</b></p> <ul style="list-style-type: none"> <li>n/r</li> </ul> <p><b>Population Type:</b></p> <ul style="list-style-type: none"> <li>suspected CD</li> </ul> <p><b>Reference test:</b></p> <ul style="list-style-type: none"> <li>paediatric Watson capsule</li> </ul> <p><b>First test:</b></p> <ul style="list-style-type: none"> <li>Simultaneous biopsy &amp; serology</li> </ul> <p><b>Controls biopsied:</b></p> <ul style="list-style-type: none"> <li>yes</li> </ul> <p><b>Biopsy criteria:</b> ESPGAN; subtotal or partial VA</p> <p><b>Checked IgA def.</b></p> <ul style="list-style-type: none"> <li>yes</li> </ul> <p><b>Studied tests</b> IgA-EMA IgA-AGA</p> <p><b>Methodology:</b> IgA-EMA, indirect IF &amp; ME; IgA-AGA, DIG-ELISA</p> <p><b>Cut-off:</b> IgA-AGA &gt;11mm regarded as positive</p>	<p><b>Celiac Group 1</b></p> <ul style="list-style-type: none"> <li>42 confirmed CD pts (meets ESPGAN criteria)</li> <li>mean age: 2.7 y (range 5 mos-14.4 y)</li> <li>% F: 48</li> </ul> <p><b>Celiac Group 2</b></p> <ul style="list-style-type: none"> <li>10 suspected CD pts with characteristic biopsy but repeat biopsy on GFD was pending</li> <li>mean age: 2.7 y (range 5 mos-14.4 y)</li> <li>% F: 48</li> </ul>	<p><b>Group 1:</b></p> <ul style="list-style-type: none"> <li>25 pts with other pathology (CD excluded)</li> <li>mean age: 2.7 y (range 5 mos-14.4 y)</li> <li>% F: 48</li> </ul>	Celiac 1 & 2 vs control 1 EMA	51	1	3	38	98.1	92.7	94.4	97.5
				Celiac 1 & 2 vs control 1 IgA	45	7	3	39	86.5	92.7	93.7	85

**Evidence Table 1 (cont'd): Included studies of the sensitivity and specificity of serology for CD**

Author, Year, Location	Study Design	Study Population	Control Population	Results								
				Comparison	4X4 table				Sens	Spec	PPV	NPV
					a	c	b	d				
Maki, 1991 Finland	<p><b>Publication type:</b></p> <ul style="list-style-type: none"> <li>journal</li> </ul> <p><b>Study design:</b></p> <ul style="list-style-type: none"> <li>cohort</li> </ul> <p><b>Ethnicity:</b></p> <ul style="list-style-type: none"> <li>n/r</li> </ul> <p><b>Population Type:</b></p> <ul style="list-style-type: none"> <li>suspected celiac</li> </ul> <p><b>Reference test:</b></p> <ul style="list-style-type: none"> <li>paediatric Watson capsule</li> </ul> <p><b>First test:</b></p> <ul style="list-style-type: none"> <li>Simultaneous Biopsy &amp; serology</li> </ul> <p><b>Controls biopsied:</b></p> <ul style="list-style-type: none"> <li>yes</li> </ul> <p><b>Biopsy criteria:</b> ESPGAN; subtotal or partial VA</p> <p><b>Checked IgA def.</b></p> <ul style="list-style-type: none"> <li>yes</li> </ul> <p><b>Studied tests</b> IgA-EMA IgA-AGA</p> <p><b>Methodology:</b> IgA-EMA, indirect IF &amp; ME; IgA-AGA, DIG-ELISA</p> <p><b>Cut-off:</b> IgA-AGA &gt; 11mm regarded as positive</p>	<p><b>Celiac Group 1</b></p> <ul style="list-style-type: none"> <li>42 confirmed CD pts (meets ESPGAN criteria)</li> <li>mean age: 2.7 y (range 5 mos-14.4 y)</li> <li>% F: 48</li> </ul> <p><b>Celiac Group 2</b></p> <ul style="list-style-type: none"> <li>10 suspected CD with characteristic biopsy but repeat biopsy on GFD was pending</li> <li>mean age: 2.7 y (range 5 mos-14.4 y)</li> <li>% F: 48</li> </ul>	<p><b>Group 1:</b></p> <ul style="list-style-type: none"> <li>25 pts with other pathology (CD excluded)</li> <li>mean age: 2.7 y (range 5 mos-14.4 y)</li> <li>% F: 48</li> </ul>	Celiac 1 & 2 vs control 1 EMA	51	1	3	38	98.1	92.7	94.4	97.5
				Celiac 1 & 2 vs control 1 IgA	45	7	3	39	86.5	92.7	93.7	85

Evidence Table 1 (cont'd): Included studies of the sensitivity and specificity of serology for CD

Author, Year, Location	Study Design	Study Population	Control Population	Results								
				Comparison	4X4 table				Sens	Spec	PPV	NPV
					a	c	b	d				
McMillan, 1991 Ireland	<b>Publication type:</b> <ul style="list-style-type: none"> <li>journal</li> </ul> <b>Study design:</b> <ul style="list-style-type: none"> <li>cohort</li> </ul> <b>Ethnicity:</b> <ul style="list-style-type: none"> <li>n/r</li> </ul> <b>Population Type:</b> <ul style="list-style-type: none"> <li>suspected celiac</li> </ul> <b>Reference test:</b> <ul style="list-style-type: none"> <li>Crosby capsule "muzzle loaded"</li> </ul> <b>First test:</b> <ul style="list-style-type: none"> <li>simultaneous Biopsy &amp; serology</li> </ul> <b>Controls biopsied:</b> <ul style="list-style-type: none"> <li>yes</li> </ul> <b>Biopsy criteria:</b> revised ESPGAN <b>Checked IgA def.</b> <ul style="list-style-type: none"> <li>yes</li> </ul> <b>Studied tests</b> IgG-AGA; IgA-AGA; IgG-AGA; IgA-AGA; IgG-EMA; IgA-EMA; IgA jejunum; IgG jejunum <b>Methodology:</b> <ul style="list-style-type: none"> <li>AGA by indirect IF; AGA by ELISA; EMA by IF, ME; jejunum, IF with sections of black hooded rat jejunum as antigen</li> </ul> <b>Cut-off:</b> titre of one in 20 or greater were considered positive	<b>Celiac Group 1</b> <ul style="list-style-type: none"> <li>23 biopsy proven CD + 5 probable CD = 28 pts</li> <li>Adults age (y): 16-89</li> <li>% F: n/r</li> </ul>	<b>Group 1:</b> <ul style="list-style-type: none"> <li>7 pts 2 did not respond to GFD</li> <li>4 had ulcerative colitis (1 of those pts had partial VA); 1 had IBS</li> <li>mean age: n/r</li> <li>% F: n/r</li> </ul> <b>Group 2:</b> <ul style="list-style-type: none"> <li>61 normal results of jejunal biopsies</li> </ul>	Celiac group 1	21	7	4	57	75	93.4	84	89
				vs control group	21	7	0	61	75	100	100	90
				2	16	12	9	52	57	85	64	81
					28	0	0	61	100	100	100	100
					11	17	1	60	39	98.3	92	78
					25	3	0	61	89.2	100	100	95.3
					15	13	0	61	54	92	75	81
					21	7	0	61	75	100	100	90

**Evidence Table 1 (cont'd): Included studies of the sensitivity and specificity of serology for CD**

Author, Year, Location	Study Design	Study Population	Control Population	Results								
				Comparison	4X4 table				Sens	Spec	PPV	NPV
					a	c	b	d				
Meini, 1996 Italy	<p><b>Publication type:</b></p> <ul style="list-style-type: none"> <li>journal</li> </ul> <p><b>Study design:</b></p> <ul style="list-style-type: none"> <li>cohort</li> </ul> <p><b>Ethnicity:</b></p> <ul style="list-style-type: none"> <li>n/r</li> </ul> <p><b>Population Type:</b></p> <ul style="list-style-type: none"> <li>65/85 IgA-def pts seen in single immunology clinic 1989-93 (76.5%)</li> </ul> <p><b>Reference test:</b></p> <ul style="list-style-type: none"> <li>Watson capsule</li> </ul> <p><b>First test:</b></p> <ul style="list-style-type: none"> <li>biopsy</li> </ul> <p><b>Controls biopsied:</b></p> <ul style="list-style-type: none"> <li>yes</li> </ul> <p><b>Biopsy criteria:</b> partial VA or total VA</p> <p><b>Checked IgA def.</b></p> <ul style="list-style-type: none"> <li>yes</li> </ul> <p><b>Studied tests</b> IgA-AGA; IgG-AGA</p> <p><b>Methodology:</b> ELISA</p> <p><b>Cut-off:</b> 25 AU/dL</p>	<p><b>Celiac Group 1</b></p> <ul style="list-style-type: none"> <li>5 pts; untreated; IgA-deficient</li> <li>mean age: 8.8 y; range 7-11 y</li> <li>% F: 80</li> </ul>	<p><b>Group 1:</b></p> <ul style="list-style-type: none"> <li>60 biopsy-negative IgA-deficient</li> </ul>	celiac 1 vs control 1	0 5	5 0	0 11	55 44	0 100	100 80	- 31.2	91.7 100

**Evidence Table 1 (cont'd): Included studies of the sensitivity and specificity of serology for CD**

Author, Year, Location	Study Design	Study Population	Control Population	Results								
				Comparison	4X4 table				Sens	Spec	PPV	NPV
					a	c	b	d				
Picarelli, 2000 Italy	<p><b>Publication type:</b></p> <ul style="list-style-type: none"> <li>journal</li> </ul> <p><b>Study design:</b></p> <ul style="list-style-type: none"> <li>case control</li> </ul> <p><b>Ethnicity:</b></p> <ul style="list-style-type: none"> <li>n/r</li> </ul> <p><b>Population Type:</b></p> <ul style="list-style-type: none"> <li>suspected CD</li> </ul> <p><b>Reference test:</b></p> <ul style="list-style-type: none"> <li>EMA; biopsy (EGD) 2 biopsies</li> </ul> <p><b>First test:</b></p> <ul style="list-style-type: none"> <li>EMA serology</li> </ul> <p><b>Controls biopsied:</b></p> <ul style="list-style-type: none"> <li>yes</li> </ul> <p><b>Biopsy criteria:</b> ESPGAN</p> <p><b>Checked IgA def.</b></p> <ul style="list-style-type: none"> <li>yes 9 of 18 IgA deficient</li> </ul> <p><b>Studied tests</b> IgG-EMA; IgA-AGA; IgG-AGA</p> <p><b>Methodology:</b> EMA, indirect IF ME; AGA, in house ELISA</p> <p><b>Cut-off:</b> 0.9 for AGA-IgA and 1.1 for AGA-IgG</p>	<p><b>Celiac Group 1</b></p> <ul style="list-style-type: none"> <li>30 EMA neg suspected CD; 18 confirmed cases CD</li> <li>mean age: 10.6 y (age range 2-16 y)</li> <li>% F: 60</li> </ul>	<p><b>Group 1:</b></p> <ul style="list-style-type: none"> <li>60 disease control (other GI diseases)</li> <li>mean age: 11.3 y (age range 4-16)</li> <li>% F: 55</li> </ul> <p><b>Group 2:</b></p> <ul style="list-style-type: none"> <li>63 healthy children</li> <li>mean age 10.5 y (age range 3-16 y)</li> <li>% F: 52 - this group not biopsied so not used</li> </ul> <p><b>Group 3:</b></p> <ul style="list-style-type: none"> <li>12 suspected CD pts biopsy negative</li> </ul>	celiac 1 vs control 1 and EMA	18	0	0	135	100	100	100	100
				celiac 1 vs control 3 for IgA-AGA	4	14	4	8	22.2	66.7	50	36.3
				IgG-AGA	6	12	5	7	33.3	58.3	54.5	36.8;

**Evidence Table 1 (cont'd): Included studies of the sensitivity and specificity of serology for CD**

Author, Year, Location	Study Design	Study Population	Control Population	Results								
				Comparison	4X4 table				Sens	Spec	PPV	NPV
					a	c	b	d				
Poddar, 2002 India	<b>Publication type:</b> <ul style="list-style-type: none"> <li>journal</li> </ul> <b>Study design:</b> <ul style="list-style-type: none"> <li>cohort</li> </ul> <b>Ethnicity:</b> <ul style="list-style-type: none"> <li>n/r</li> </ul> <b>Population Type:</b> <ul style="list-style-type: none"> <li>suspected CD</li> </ul> <b>Reference test:</b> <ul style="list-style-type: none"> <li>biopsy - endoscopic</li> </ul> <b>First test:</b> <ul style="list-style-type: none"> <li>biopsy</li> </ul> <b>Controls biopsied:</b> <ul style="list-style-type: none"> <li>yes</li> </ul> <b>Biopsy criteria:</b> ESPGAN (VA and unequivocal response to GFD)	<b>Celiac Group 1</b> <ul style="list-style-type: none"> <li>50 CD children of 100 biopsied for suspected CD</li> <li>mean age: 6.3; range 2.5-12 y</li> <li>% F: n/r</li> </ul>	<b>Group 1:</b> <ul style="list-style-type: none"> <li>44 biopsy-negative controls who were suspected of CD</li> </ul>	celiac 1 vs control 1	47	3	4	43	94	91.5	92	93.5

**Evidence Table 1 (cont'd): Included studies of the sensitivity and specificity of serology for CD**

Author, Year, Location	Study Design	Study Population	Control Population	Results								
				Comparison	4X4 table				Sens	Spec	PPV	NPV
					a	c	b	d				
Rich, 1990 USA	<p><b>Publication type:</b></p> <ul style="list-style-type: none"> <li>journal</li> </ul> <p><b>Study design:</b></p> <ul style="list-style-type: none"> <li>cohort</li> </ul> <p><b>Ethnicity:</b></p> <ul style="list-style-type: none"> <li>n/a</li> </ul> <p><b>Population Type:</b></p> <ul style="list-style-type: none"> <li>n/a</li> </ul> <p><b>Reference test:</b> pediatric suction biopsy technique under fluoroscopic control</p> <p><b>First test:</b></p> <ul style="list-style-type: none"> <li>n/r</li> </ul> <p><b>Controls biopsied:</b></p> <ul style="list-style-type: none"> <li>yes</li> </ul> <p><b>Biopsy criteria:</b> n/r - state "severe" lesion</p> <p><b>Checked IgA def.</b></p> <ul style="list-style-type: none"> <li>n/r</li> </ul> <p><b>Studied tests</b> xylose; IgA-AGA; IgG-AGA</p> <p><b>Methodology:</b> D-xylose absorption test; for AGA - ELISA</p> <p><b>Cut-off:</b> xylose <math>\leq</math>25 mg/dL was considered abnormal; AGA - Ab levels <math>&gt;</math>2 SD above the mean of the reference group of normal subjects were considered to be abnormal</p>	<p><b>Celiac Group 1</b></p> <ul style="list-style-type: none"> <li>15 biopsy-proven CD pts out of 60 consecutive group of children suspicious of having CD</li> <li>age: n/r</li> <li>% F: n/r</li> </ul>	<p><b>Group 1:</b></p> <ul style="list-style-type: none"> <li>45 non-CD biopsies out of 60 consecutive group of children suspicious of having CD</li> <li>age: n/r</li> <li>% F: n/r</li> </ul>	celiac vs CO: Xylose	14	1	24	21	93	47	36.8	84
celiac vs CO: IgG AGA	15	0	19	26	100	58	44	100				
celiac vs CO: IgA AGA	8	7	3	42	53	93	72.7	85.7				

**Evidence Table 1 (cont'd): Included studies of the sensitivity and specificity of serology for CD**

Author, Year, Location	Study Design	Study Population	Control Population	Results								
				Comparison	4X4 table				Sens	Spec	PPV	NPV
					a	c	b	d				
Russo, 1999 Canada	<p><b>Publication type:</b></p> <ul style="list-style-type: none"> <li>journal</li> </ul> <p><b>Study design:</b></p> <ul style="list-style-type: none"> <li>cohort</li> </ul> <p><b>Ethnicity:</b></p> <ul style="list-style-type: none"> <li>n/a</li> </ul> <p><b>Population Type:</b></p> <ul style="list-style-type: none"> <li>n/a</li> </ul> <p><b>Reference test:</b> endoscopic biopsy</p> <p><b>First test:</b></p> <ul style="list-style-type: none"> <li>n/r</li> </ul> <p><b>Controls biopsied:</b></p> <ul style="list-style-type: none"> <li>yes</li> </ul> <p><b>Biopsy criteria:</b> ESPGAN</p> <p><b>Checked IgA def.</b> yes (1 pts with CD were found to be IgA deficient)</p> <p><b>Studied tests</b> AGA-IgA; AGA-IgG; EMA ME; EMA HU</p> <p><b>Methodology:</b> for AGA-IgA and IgG ELISA; for EMA - IF on either ME, or HU</p> <p><b>Cut-off:</b> for AGA-gA cut-off was 0.25 EU and for AGA-IgG 0.3 EU; for EMA positive results were considered when a characteristic honeycomb pattern was observed around the smooth muscle</p>	<p><b>Celiac Group 1</b></p> <ul style="list-style-type: none"> <li>24 pediatric pts with CD (biopsy proven) diagnosed by evaluating consecutive group of 95 children with suspected CD</li> <li>age: mean 3.5 y, range 7 mos-11 y</li> <li>% F: 50</li> </ul>	<p><b>Group 1:</b></p> <ul style="list-style-type: none"> <li>71 children with biopsy proved non-CD enteropathies or normal mucosa</li> <li>age: n/r</li> <li>% F: n/r</li> </ul>	celiac vs control IgG-AGA					83.3	84.5	64.5	93.8
				celiac vs control IgA-AGA;					83.3	85.9	66.7	93.8
				celiac vs control EMA ME					75	88.7	69.2	91.3
				celiac vs control EMA HU					45.8	95.8	78.6	84
				parallel series					100	73	57	82
									100	93	86	100

**Evidence Table 1 (cont'd): Included studies of the sensitivity and specificity of serology for CD**

Author, Year, Location	Study Design	Study Population	Control Population	Results								
				Comparison	4X4 table				Sens	Spec	PPV	NPV
					a	c	b	d				
Salmaso, 2001 Italy	<b>Publication type:</b> <ul style="list-style-type: none"> <li>journal</li> </ul> <b>Study design:</b> <ul style="list-style-type: none"> <li>case control</li> </ul> <b>Ethnicity:</b> <ul style="list-style-type: none"> <li>n/a</li> </ul> <b>Population Type:</b> consecutive CD Dx 1996-99 <b>Reference test:</b> <ul style="list-style-type: none"> <li>no info on biopsy</li> </ul> <b>First test:</b> <ul style="list-style-type: none"> <li>biopsy?</li> </ul> <b>Controls biopsied:</b> <ul style="list-style-type: none"> <li>yes</li> </ul> <b>Biopsy criteria:</b> grades 1-1V Marsh with response to GFD <b>Checked IgA def.</b> yes; IgA deficient were excluded <b>Studied tests</b> IgA-EMA; IgA-tTG <b>Methodology:</b> UC EMA; GP-tTG antigen <b>Cut-off:</b> tTG=20 AU	<b>Celiac Group 1</b> <ul style="list-style-type: none"> <li>23 adult untreated CD pts</li> <li>median age: 50; range 27-96</li> <li>% F: 56.5</li> </ul> <b>Celiac Group 2</b> <ul style="list-style-type: none"> <li>59 children with untreated CD</li> <li>median age: 8.2 y; range 2-14</li> <li>% F: 37.3</li> </ul>	<b>Group 1:</b> 58 adult age-matched biopsy-negative controls <b>Group 2:</b> 48 children age-matched biopsy-neg controls	celiac 1 vs control 1	20	3	0	58	87	100	100	95.1
				celiac 2 vs control 2	20	3	2	56	87	97	90.9	94.9
					59	0	0	48	100	100	100	100
					56	3	0	48	95	100	100	94.1

Evidence Table 1 (cont'd): Included studies of the sensitivity and specificity of serology for CD

Author, Year, Location	Study Design	Study Population	Control Population	Results								
				Comparison	4X4 table				Sens	Spec	PPV	NPV
					a	c	b	d				
Sategna-Guidetti, 1995 Italy	<b>Publication type:</b> <ul style="list-style-type: none"> <li>journal</li> </ul> <b>Study design:</b> <ul style="list-style-type: none"> <li>case control</li> </ul> <b>Ethnicity:</b> <ul style="list-style-type: none"> <li>n/a</li> </ul> <b>Population Type:</b> <ul style="list-style-type: none"> <li>n/a</li> </ul> <b>Reference test:</b> endoscopic biopsy <b>First test:</b> <ul style="list-style-type: none"> <li>n/r</li> </ul> <b>Controls biopsied:</b> yes, except pts with ulcerative colitis <b>Biopsy criteria:</b> Roy-Choudhury criteria; partial or total VA <b>Checked IgA def.</b> yes <b>Studied tests</b> AGA-IgA; AGA-IgG; Ig AGA total Ig; EMA IgA (ME); JAB IgA <b>Methodology:</b> for AGA-IgA and IgG: ELISA; for Ig-AGA, EMA, JAB: IF <b>Cut-off:</b> for AGA-IgA and IgG: mean±2 SD of control absorbance index values; for Ig AGA: endpoint still generating a peritubular and a periglomerular reticular pattern; for EMA: results considered when a characteristic honeycomb pattern was observed around the smooth muscle; for JAB: IF at a dilution of 1:5 in phosphate-buffered saline	<b>Celiac Group 1</b> <ul style="list-style-type: none"> <li>100 untreated biopsy-proven CD pts</li> <li>age (y): mean/median n/r; range 14-79</li> <li>% F: 71</li> </ul>	<b>Group 1:</b> <ul style="list-style-type: none"> <li>52 healthy volunteers recruiting among medical and nursing staff</li> </ul> <b>Group 2:</b> <ul style="list-style-type: none"> <li>57 pts with non-CD conditions: Crohn's disease (n=38), ulcerative colitis (n=5), lymphoma (n=7), Whipple's disease (n=1), irritable bowel disease (n=6)</li> <li>age: n/r</li> </ul>	celiac vs CO EMA	100	0	0	109	100	100	100	100
				celiac vs CO JAB	100	0	0	109	100	100	100	100
				celiac vs CO IgA-AGA	55	45	0	109	55	100	100	70.8
				celiac vs CO IgG-AGA	78	22	18	91	78	83.5	81.3	80.5
				celiac vs CO Ig-AGA	92	8	5	104	92	95	96	90

**Evidence Table 1 (cont'd): Included studies of the sensitivity and specificity of serology for CD**

Author, Year, Location	Study Design	Study Population	Control Population	Results								
				Comparison	4X4 table				Sens	Spec	PPV	NPV
					a	c	b	d				
Sblaterro, 2000 Italy	<b>Publication type:</b> <ul style="list-style-type: none"> <li>journal</li> </ul> <b>Study design:</b> <ul style="list-style-type: none"> <li>case control</li> </ul> <b>Ethnicity:</b> <ul style="list-style-type: none"> <li>n/a</li> </ul> <b>Population Type:</b> <ul style="list-style-type: none"> <li>n/a</li> </ul> <b>Reference test:</b> n/r <b>First test:</b> <ul style="list-style-type: none"> <li>biopsy</li> </ul> <b>Controls biopsied:</b> ESPGHAN <b>Biopsy criteria:</b> ESPGHAN <b>Checked IgA def.</b> yes <b>Studied tests</b> EMA-IgA; GP-tTG IgG and IgA; HR tTG <b>Methodology:</b> for tTG: ELISA; for EMA: IF <b>Cut-off:</b> normal values for IgA HR-tTG were taken as <13% and for IgG HR-tTG <30%; normal values for IgA GP-tTG were taken as <7% and <16%	<b>Celiac Group 1</b> <ul style="list-style-type: none"> <li>65 pts with biopsy proven CD</li> <li>age (y): median 12, range 2-60</li> <li>% F: 52.3</li> </ul>	<b>Group 1:</b> <ul style="list-style-type: none"> <li>150 healthy donors and 20 pts with Crohn's disease (biopsy proven non-CD enteropathies or normal mucosa)</li> <li>age: mean/media n/r; range 12-60 y</li> <li>% F: 44</li> </ul>	celiac vs CO EMA	60	5	0	170	93	100	100	97
				celiac vs CO IgG GP-tTG	40	25	3	167	61	98	93	87
				celiac vs CO IgA GP-tTG	53	12	3	167	84	98	94.6	88
				IgG/IgA GP-tTG	58	7	6	164	90	96	91	98
				celiac vs CO IgG HR-tTG	44	21	7	163	67.6	96	86.3	88.6
				celiac vs CO IgA HR-tTG	59	6	1	169	91.5	99	98.3	96.6
				IgG/IgA HR-tTG	64	1	8	162	98.5	95	88.9	99.4

**Evidence Table 1 (cont'd): Included studies of the sensitivity and specificity of serology for CD**

Author, Year, Location	Study Design	Study Population	Control Population	Results								
				Comparison	4X4 table				Sens	Spec	PPV	NPV
					a	c	b	d				
Sulkanen, Collin, et al. 1998 Finland  N.B: used adult group of Sulkanen, Collin, et al., 1998; more complete data located in Sulkanen, Halttunen, et al. 1998	<b>Publication type:</b> <ul style="list-style-type: none"> <li>journal</li> </ul> <b>Study design:</b> <ul style="list-style-type: none"> <li>case control</li> </ul> <b>Ethnicity:</b> <ul style="list-style-type: none"> <li>n/a</li> </ul> <b>Population Type:</b> <ul style="list-style-type: none"> <li>n/a</li> </ul> <b>Reference test:</b> n/r <b>First test:</b> <ul style="list-style-type: none"> <li>n/r</li> </ul> <b>Controls biopsied:</b> <ul style="list-style-type: none"> <li>yes</li> </ul> <b>Biopsy criteria:</b> subtotal or severe partial VA, crypt hyperplasia, increased IEL <b>Checked IgA def.</b> yes (4 pts with CD and 1 CO had IgA deficiency) <b>Studied tests</b> HU IgA; HU IgG; ARA IgA and IgG; AGA IgA and IgG <b>Methodology:</b> for AGA ELISA; for ARA IF; for HU IF using HU <b>Cut-off:</b> HU-Ab positivity included a specific honey-comb IF around the smooth-muscle fibres; AGA IgA - cut off level- 0.2 EU/mL; AGA IgG cut off level - 10.0 EU/mL; ARA test was considered positive when the characteristic R1-type ARA pattern was found	<b>Celiac Group 1</b> <ul style="list-style-type: none"> <li>92 consecutive adult pts with biopsy-proven CD</li> <li>age (y): median 43; range 20-72</li> <li>% F: 71.7</li> </ul>	<b>Group 1:</b> <ul style="list-style-type: none"> <li>95 disease controls with biopsy proven non-CD enteropathies: 52 undergoing gastroscopic exam for dyspepsia; 14 with Crohn's disease, 29 with ulcerative colitis</li> <li>age (y): median 44; range 16-76</li> </ul>	celiac vs control IgA-HU	78	12	0	95	84.8	100	100	87
				celiac vs control IgG-HU	11	81	0	95	12	100	100	54
				celiac vs control IgA-ARA	72	20	0	95	78.2	100	100	82.6
				celiac vs control IgG-ARA	12	80	2	93	13	98	85.7	53.7
				celiac vs control IgA-AGA	74	18	13	82	80.4	86.3	85	82
				celiac vs control IgG-AGA	35	57	3	92	38	96.8	92	61.7

**Evidence Table 1 (cont'd): Included studies of the sensitivity and specificity of serology for CD**

Author, Year, Location	Study Design	Study Population	Control Population	Results								
				Comparison	4X4 table				Sens	Spec	PPV	NPV
					a	c	b	d				
Sulkanen, Halttunen , et al. 1998 Finland	<b>Publication type:</b> <ul style="list-style-type: none"> <li>• journal</li> </ul> <b>Study design:</b> <ul style="list-style-type: none"> <li>• case control</li> </ul> <b>Ethnicity:</b> <ul style="list-style-type: none"> <li>• n/a</li> </ul> <b>Population type:</b> <ul style="list-style-type: none"> <li>• n/a</li> </ul> <b>Reference test:</b> Watson capsule <b>First test:</b> <ul style="list-style-type: none"> <li>• n/r</li> </ul> <b>Controls biopsied:</b> <ul style="list-style-type: none"> <li>• yes</li> </ul> <b>Biopsy criteria:</b> ESPGAN <b>Checked IgA def.</b> yes (n=14) <b>Studied tests</b> IgA tTG; IgA EMA; IgA-ARA; IgA-AGA; IgG-AGA <b>Methodology:</b> tTG-source n/r ELISA; IgA-EMA-HU; IgA and IgG-AGA-ELISA; IgA ARA-IF) <b>Cut-off:</b> for IgA tTG cut off level-10 AU	<b>Celiac Group 1</b> <ul style="list-style-type: none"> <li>• 136 consecutive pts with untreated CD (biopsy proven)</li> <li>• age (y): median 10.7, range 0.8-69.3</li> <li>• % F: n/r</li> </ul> <b>Celiac Group 2</b> <ul style="list-style-type: none"> <li>• 38 pts with CD on GFD of a median duration 48 mos</li> <li>• age: median, range n/r</li> <li>• % F: n/r</li> </ul> <b>Celiac Group 3</b> <ul style="list-style-type: none"> <li>• 18 pts on a gluten-challenge</li> <li>• age: median, range n/r</li> <li>• % F: n/r</li> <li>• 11 pts after reintroduction of a GFD (group 4)</li> <li>• age (y): median, range n/r</li> <li>• % F: n/r</li> </ul>	<b>Group 1:</b> <ul style="list-style-type: none"> <li>• 154 disease CO with suspicion of CD but biopsy proven non-CD</li> <li>• age (y): median 10, range 0.8-76.0</li> <li>• % F: n/r</li> </ul>	CD group1 vs CO IgA-tTG	129	7	13	194	95	93.7	90.8	96.5
				CD group1 vs CO IgA-EMA	126	10	1	206	92.6	99.5	99.2	94.9
				CD group1 vs CO IgA-ARA	125	11	8	199	92	96.1	94	94.7
				CD group1 vs CO IgA-AGA	115	21	38	169	84.5	81.6	75.2	89
				CD group1 vs CO all IgG-AGA	94	42	55	152	69	73.4	63	78.3

**Evidence Table 1 (cont'd): Included studies of the sensitivity and specificity of serology for CD**

Author, Year, Location	Study Design	Study Population	Control Population	Results								
				Comparison	4X4 table				Sens	Spec	PPV	NPV
					a	c	b	d				
Tesei, 2003 Argentina	<p><b>Publication type:</b></p> <ul style="list-style-type: none"> <li>journal</li> </ul> <p><b>Study design:</b></p> <ul style="list-style-type: none"> <li>case control</li> </ul> <p><b>Ethnicity:</b></p> <ul style="list-style-type: none"> <li>n/a</li> </ul> <p><b>Population Type:</b></p> <ul style="list-style-type: none"> <li>n/a</li> </ul> <p><b>Reference test:</b> endoscopic biopsy</p> <p><b>First test:</b> Simultaneously</p> <p><b>Controls biopsied:</b> yes</p> <p><b>Biopsy criteria:</b> Marsh 2 to 4 - with confirmation</p> <p><b>Checked IgA def.</b> yes (11 pts were diagnosed as IgA deficient having dermatitis herpetiformis)</p> <p><b>Studied tests</b> HU-anti-tTG IgA-HR; EMA-IgA; AGA-IgA; AGA-IgG</p> <p><b>Methodology:</b> for HU-anti-tTG, ELISA; for EMA, ME IF; for AGA, ELISA</p> <p><b>Cut-off:</b> for HU-anti-tTG - 7 AU/mL; for AGA - 20 AU/mL; for EMA - florescence at dilution of 1:5</p>	<p><b>Celiac Group 1</b></p> <ul style="list-style-type: none"> <li>250 consecutive pts with biopsy proven CD</li> <li>age (y): mean 39, range 13-79</li> <li>% F: 74</li> </ul>	<p><b>Group 1:</b></p> <ul style="list-style-type: none"> <li>176 biopsy proven non-CD disease controls: chronic diarrhea (n=78), chronic microcitic anemia (n=33), first-degree relatives of index cases (n=32), healthy individuals (n=11), malabsorption (n=4), miscellaneous (n=12), undernutrition (n=6)</li> <li>age (y): mean 40, range 17-83</li> <li>% F: 75</li> </ul>	CD vs CO: HU-anti-tTG IgA	225	25	9	167	91	96	97	87
CD vs CO: EMA	214	36	0	176	86	100	100	83				
CD vs CO: AGA IgA	159	91	14	162	64	92	92	64				
CD vs CO: AGA IgG	210	40	25	151	84	86	89	79				

**Evidence Table 1 (cont'd): Included studies of the sensitivity and specificity of serology for CD**

Author, Year, Location	Study Design	Study Population	Control Population	Results								
				Comparison	4X4 table				Sens	Spec	PPV	NPV
					a	c	b	d				
Troncone, 1999 Italy	<p><b>Publication type:</b></p> <ul style="list-style-type: none"> <li>journal</li> </ul> <p><b>Study design:</b></p> <ul style="list-style-type: none"> <li>case control</li> </ul> <p><b>Ethnicity:</b></p> <ul style="list-style-type: none"> <li>n/a</li> </ul> <p><b>Population Type:</b></p> <ul style="list-style-type: none"> <li>n/a</li> </ul> <p><b>Reference test:</b></p> <p>n/r</p> <p><b>First test:</b></p> <ul style="list-style-type: none"> <li>n/r</li> </ul> <p><b>Controls biopsied:</b></p> <ul style="list-style-type: none"> <li>yes</li> </ul> <p><b>Biopsy criteria:</b></p> <p>ESPGAN</p> <p><b>Checked IgA def.</b></p> <p>yes (none of celiac or CO suffered from IgA deficiency)</p> <p><b>Studied tests</b></p> <p>anti-tTG IgA; anti-tTG IgG; IgA EMA</p> <p><b>Methodology:</b></p> <p>for tTG-GP, ELISA; for EMA, ME IF</p> <p><b>Cut-off:</b></p> <p>for anti-tTG - at the 97th percentile of the control group (9% of the reference serum for IgA and 60% - for IgG); for EMA - as the highest dilution giving a positive result (a thin fluorescent network around the smooth muscle fibres)</p>	<p><b>Celiac Group 1</b></p> <ul style="list-style-type: none"> <li>48 biopsy proven CD pts</li> <li>age (y): mean 5.7, range 0.9-20</li> <li>% F: 58</li> </ul> <p><b>Celiac Group 2</b></p> <ul style="list-style-type: none"> <li>33 pts who were on GFD of at least 2 y</li> <li>age (y): mean 7.3, range 4.3-18</li> <li>% F: 60.6</li> </ul> <p><b>Celiac Group 3</b></p> <ul style="list-style-type: none"> <li>10 pts from group 2 who were reintroduced to gluten-containing diet</li> </ul>	<p><b>Group 1:</b></p> <ul style="list-style-type: none"> <li>63 biopsy proven non-CD disease controls: chronic diarrhea (n=16), failure to thrive (n=14), Crohn's disease (n=10), cow's milk protein allergy (n=5), GERD (n=5), recurrent abdominal pain (n=4), sideropenic anemia (n=4), hepatitis C (n=3), Cystic fibrosis (n=2)</li> <li>age (y): mean 4.2, range 1.1-17</li> <li>% F: 49</li> </ul>	<p>CD vs CO: anti-tTG IgA</p> <p>CD vs CO: anti-tTG IgG</p>	44	4	1	62	91.7	98	98	94
					11	37	1	62	23	98	92	63

**Evidence Table 1 (cont'd): Included studies of the sensitivity and specificity of serology for CD**

Author, Year, Location	Study Design	Study Population	Control Population	Results								
				Comparison	4X4 table				Sen s	Spec	PPV	NPV
					a	c	b	d				
Valdimarsson, 1996 Sweden	<p><b>Publication type:</b></p> <ul style="list-style-type: none"> <li>• journal</li> </ul> <p><b>Study design:</b></p> <ul style="list-style-type: none"> <li>• cohort</li> </ul> <p><b>Ethnicity:</b></p> <ul style="list-style-type: none"> <li>• n/a</li> </ul> <p><b>Population Type:</b></p> <ul style="list-style-type: none"> <li>• n/a</li> </ul> <p><b>Reference test:</b> Watson capsule in 91 pts; fiberoptic endoscopy - in 65 pts</p> <p><b>First test:</b></p> <ul style="list-style-type: none"> <li>• biopsy</li> </ul> <p><b>Controls biopsied:</b></p> <ul style="list-style-type: none"> <li>• yes</li> </ul> <p><b>Biopsy criteria:</b> Alexander's classification; partial or subtotal VA</p> <p><b>Checked IgA def.</b> yes (5 had IgA deficiency)</p> <p><b>Studied tests</b> IgA AGA; IgA EMA</p> <p><b>Methodology:</b> for AGA, ELISA; for EMA, IF ME</p> <p><b>Cut-off:</b> for AGA-IgA, 30 units (&gt;92nd percentile in healthy blood donors); for AGA-IgG, 20 units (&gt;91.3th percentile in healthy blood donors); for IgA EMA, characteristic honeycomb pattern was observed around the smooth muscle</p>	<p><b>Celiac Group 1</b></p> <ul style="list-style-type: none"> <li>• 19 pts with CD (biopsy-proven) out of 156 pts referred for symptoms suspicious for CD</li> <li>• age: n/r</li> <li>• % F: n/r</li> </ul>	<p><b>Group 1:</b></p> <ul style="list-style-type: none"> <li>• 137 pts with biopsy proven non-CD; 5 had IgA deficiency and 7-dermatitis herpetiformis</li> <li>• age: n/r</li> <li>• NB: pts with IgA deficiency and dermatitis herpetiformis were excluded from the analysis of sensitivity, specificity, so that CO group was composed of 125 pts</li> </ul>	celiac vs CO IgA EMA celiac vs CO IgA AGA	14 15	5 4	0 38	125 87	74 79	100 70	100 28	96 96

**Evidence Table 1 (cont'd): Included studies of the sensitivity and specificity of serology for CD**

Author, Year, Location	Study Design	Study Population	Control Population	Results								
				Comparison	4X4 table				Sens	Spec	PPV	NPV
					a	c	b	d				
Valentini, 1994 Italy	<p><b>Publication type:</b></p> <ul style="list-style-type: none"> <li>journal</li> </ul> <p><b>Study design:</b></p> <ul style="list-style-type: none"> <li>case control</li> </ul> <p><b>Ethnicity:</b></p> <ul style="list-style-type: none"> <li>n/a</li> </ul> <p><b>Population Type:</b></p> <ul style="list-style-type: none"> <li>n/a</li> </ul> <p><b>Reference test:</b> multipurpose biopsy tube, endoscopic</p> <p><b>First test:</b></p> <ul style="list-style-type: none"> <li>simultaneously</li> </ul> <p><b>Controls biopsied:</b></p> <ul style="list-style-type: none"> <li>yes</li> </ul> <p><b>Biopsy criteria:</b> partial VA or greater</p> <p><b>Checked IgA def.</b> n/r</p> <p><b>Studied tests</b> IgA-AGA; IgG-AGA; IgA-EMA ME</p> <p><b>Methodology:</b> for IgA/IgG AGA, ELISA; for IgA-EMA, IF</p> <p><b>Cut-off:</b> lower limit of AGA positive was 1 EU, based on the mean+/-2 SD of the results obtained in a large series of healthy adults; IgA-EMA identified by their reticulin-like staining of the smooth muscle; sera containing antibody at a titre of 1:5 or greater were considered to be positive</p>	<p><b>Celiac Group 1</b></p> <ul style="list-style-type: none"> <li>100 consecutive adult untreated pts with CD (biopsy proven)</li> <li>age (y): mean 37.4+-15.4, range 17-79</li> <li>% F: 77</li> </ul> <p><b>Celiac Group 2</b></p> <ul style="list-style-type: none"> <li>33 pts out of 100 group 1 who were on GFD of at least 6 mos (mean 9.9 mos, range 6-12 mos);</li> </ul>	<p><b>Group 1:</b></p> <ul style="list-style-type: none"> <li>30 disease controls (CO) with biopsy proven non-CD conditions: ulcerative colitis (n=8), gastric lymphoma (n=8), Crohn's disease (n=5), Whipple disease (n=3), IBS (n=3), giardiasis (n=2), Graves disease (n=1)</li> <li>age (y): mean 40+-13, range 18-60</li> <li>% F: 47</li> </ul>	celiac vs CO IgA EMA	99	1	0	30	99	100	100	96.7
				celiac vs CO IgA/IgG AGA	92	8	3	27	92	90	96.8	77.1

**Evidence Table 1 (cont'd): Included studies of the sensitivity and specificity of serology for CD**

Author, Year, Location	Study Design	Study Population	Control Population	Results								
				Comparison	4X4 table				Sens	Spec	PPV	NPV
					a	c	b	d				
Vitoria, 2001 Italy	<p><b>Publication type:</b></p> <ul style="list-style-type: none"> <li>journal</li> </ul> <p><b>Study design:</b></p> <ul style="list-style-type: none"> <li>case control</li> </ul> <p><b>Ethnicity:</b></p> <ul style="list-style-type: none"> <li>n/a</li> </ul> <p><b>Population Type:</b></p> <ul style="list-style-type: none"> <li>n/a</li> </ul> <p><b>Reference test:</b></p> <p>n/r</p> <p><b>First test:</b></p> <ul style="list-style-type: none"> <li>n/r</li> </ul> <p><b>Controls biopsied:</b></p> <ul style="list-style-type: none"> <li>yes</li> </ul> <p><b>Biopsy criteria:</b></p> <p>subtotal VA</p> <p><b>Checked IgA def.</b></p> <p>n/r</p> <p><b>Studied tests</b></p> <p>IgA tTG-ab; IgA EMA</p> <p><b>Methodology:</b></p> <p>tTG-HR, ELISA; IgA-EMA, IF ME</p> <p><b>Cut-off:</b></p> <p>for tTG, values of 9 U/mL and more were considered positive; for EMA, reticular pattern of fluorescence in the muscular mucosa at a dilution of serum 1:5 were considered positive</p>	<p><b>Celiac Group 1</b></p> <ul style="list-style-type: none"> <li>42 biopsy proven CD pts</li> <li>age: mean 4.2±4.2 y</li> <li>% F: n/r</li> </ul>	<p><b>Group 1:</b></p> <ul style="list-style-type: none"> <li>28 biopsy proven non-CD disorders</li> <li>age: mean 6.1±5.2 y</li> <li>% F: n/r</li> </ul>	celiac vs CO: tTG	40	2	0	28	95	100	100	93
				celiac vs CO: EMA	42	0	0	28	100	100	100	100

**Evidence Table 1 (cont'd): Included studies of the sensitivity and specificity of serology for CD**

Author, Year, Location	Study Design	Study Population	Control Population	Results																								
				Comparison	4X4 table				Sens	Spec	PPV	NPV																
					a	c	b	d																				
Vogelsang, 1995 Austria	<b>Publication type:</b> <ul style="list-style-type: none"> <li>journal</li> </ul> <b>Study design:</b> <ul style="list-style-type: none"> <li>cohort</li> </ul> <b>Ethnicity:</b> <ul style="list-style-type: none"> <li>n/r</li> </ul> <b>Population Type:</b> <ul style="list-style-type: none"> <li>suspected CD</li> </ul> <b>Reference test:</b> biopsy <b>First test:</b> <ul style="list-style-type: none"> <li>endoscopic biopsy distal duodenum or Baumgartner-Classen capsule from duodenojejunal flexure</li> </ul> <b>Controls biopsied:</b> <ul style="list-style-type: none"> <li>yes</li> </ul> <b>Biopsy criteria:</b> modified ESPGAN; flat mucosa; crypt hyperplasia raised IELs <b>Checked IgA def.</b> yes; no cases found <b>Studied tests</b> IgA-AGA; IgG-AGA; IgA-EMA <b>Methodology:</b> ELISA; >95th percentile; ME <b>Cut-off:</b> AGA 0.2 AU/mL	<b>Celiac Group 1</b> <ul style="list-style-type: none"> <li>49 untreated biopsy-proven CD</li> <li>age: median 35; range 17-75</li> </ul>	<b>Group 1:</b> <ul style="list-style-type: none"> <li>53 biopsy-neg controls; median age 31; range 15-79; Crohn's (17); IBS (16); lactase def (7); fibroma (1); duodenitis (1); gastroparesis (3); gastritis (2); chron pancr (1); UC (1); coll colitis (1)</li> </ul>	celiac 1 vs control 1	40	36	49	9	13	0	9	14	0	44	39	53	81.6	73.5	100	83	73.6	100	81.6	72	100	83	75	100

**Evidence Table 1 (cont'd): Included studies of the sensitivity and specificity of serology for CD**

Author, Year, Location	Study Design	Study Population	Control Population	Results								
				Comparison	4X4 table				Sens	Spec	PPV	NPV
					a	c	b	d				
Volta, 1995 Italy	<p><b>Publication type:</b></p> <ul style="list-style-type: none"> <li>journal</li> </ul> <p><b>Study design:</b></p> <ul style="list-style-type: none"> <li>case control</li> </ul> <p><b>Ethnicity:</b></p> <ul style="list-style-type: none"> <li>n/a</li> </ul> <p><b>Population Type:</b></p> <ul style="list-style-type: none"> <li>n/a</li> </ul> <p><b>Reference test:</b></p> <p>n/r</p> <p><b>First test:</b></p> <ul style="list-style-type: none"> <li>n/r</li> </ul> <p><b>Controls biopsied:</b></p> <ul style="list-style-type: none"> <li>only disease CO</li> </ul> <p><b>Biopsy criteria:</b></p> <p>Roy-Choudhury criteria</p> <p><b>Checked IgA def.</b></p> <p>n/r</p> <p><b>Studied tests</b></p> <p>IgA-EMA on ME; IgA-EMA on HU</p> <p><b>Methodology:</b></p> <p>IF</p> <p><b>Cut-off:</b></p> <p>staining of the endomysium around the smooth muscle was considered as a positive result</p>	<p><b>Celiac Group 1</b></p> <ul style="list-style-type: none"> <li>60 untreated pts with biopsy-proven CD</li> <li>age (y): median 41, range 14-68</li> <li>% F: 70</li> </ul> <p><b>Celiac Group 2</b></p> <ul style="list-style-type: none"> <li>36 pts with CD on GFD of 12 mos duration</li> </ul>	<p><b>Group 1:</b></p> <ul style="list-style-type: none"> <li>100 disease CO (biopsy proven non-CD in disease CO): ulcerative colitis (n=25), Crohn's disease (n=35), various other GI diseases (n=40)</li> <li>age (y): median 44, range 25-70</li> <li>% F: 68</li> </ul> <p><b>Group 2:</b></p> <ul style="list-style-type: none"> <li>100 healthy CO (not biopsied)</li> <li>age: median, range n/r</li> <li>% F: n/r</li> </ul>	<p>celiac vs CO IgA-EMA ME</p> <p>celiac vs CO IgA-EMA HU</p>	57	3	0	100	95	100	100	97.1
					57	3	0	100	95	100	100	97.1

**Evidence Table 1 (cont'd): Included studies of the sensitivity and specificity of serology for CD**

Author, Year, Location	Study Design	Study Population	Control Population	Results								
				Comparison	4X4 table				Sens	Spec	PPV	NPV
					a	c	b	d				
Whelan, 1996 Ireland	<b>Publication type:</b> <ul style="list-style-type: none"> <li>journal</li> </ul> <b>Study design:</b> <ul style="list-style-type: none"> <li>case control</li> </ul> <b>Ethnicity:</b> <ul style="list-style-type: none"> <li>n/a</li> </ul> <b>Population Type:</b> <ul style="list-style-type: none"> <li>n/a</li> </ul> <b>Reference test:</b> n/r <b>First test:</b> <ul style="list-style-type: none"> <li>n/r</li> </ul> <b>Controls biopsied:</b> <ul style="list-style-type: none"> <li>only disease CO</li> </ul> <b>Biopsy criteria:</b> subtotal VA <b>Checked IgA def.</b> n/r <b>Studied tests</b> HUVEC IgA - human umbilical vein endothelial cells; EMA IgA; (ME) ARA IgA (rat liver); only EMA used for analysis <b>Methodology:</b> HUVEC - IF; EMA - IF; ARA - IF <b>Cut-off:</b> n/a	<b>Celiac Group 1</b> <ul style="list-style-type: none"> <li>25 untreated CD (biopsy-proven) – (UTCD)</li> <li>age: median, range n/r</li> <li>% F: n/r</li> </ul> <b>Celiac Group 2</b> <ul style="list-style-type: none"> <li>16 treated CD on GFD – TCD</li> <li>age: median, range n/r</li> <li>% F: n/r</li> </ul>	<b>Group 1:</b> <ul style="list-style-type: none"> <li>20 disease CO (biopsy proven non-CD in disease CO) - 10 pts with ulcerative colitis and 10 - with Crohn's disease</li> <li>age: median, range n/r</li> <li>% F: n/r</li> </ul> <b>Group 2:</b> <ul style="list-style-type: none"> <li>16 CO with normal intestinal mucosa</li> <li>age: median, range n/r</li> <li>% F: n/r</li> </ul>	UTCD vs CO: HUVEC	25	0	0	36	100	100	100	100
				UTCD vs CO: EMA ME	25	0	0	36	100	100	100	100
				UTCD vs CO: ARA	21	4	0	36	84	100	100	90

Evidence Table 1 (cont'd): Included studies of the sensitivity and specificity of serology for CD

Author, Year, Location	Study Design	Study Population	Control Population	Results								
				Comparison	4X4 table				Sens	Spec	PPV	NPV
					a	c	b	d				
Wolters, 2002 Netherlands	<p><b>Publication type:</b></p> <ul style="list-style-type: none"> <li>journal</li> </ul> <p><b>Study design:</b></p> <ul style="list-style-type: none"> <li>cohort</li> </ul> <p><b>Ethnicity:</b></p> <ul style="list-style-type: none"> <li>n/a</li> </ul> <p><b>Population Type:</b></p> <ul style="list-style-type: none"> <li>n/a</li> </ul> <p><b>Reference test:</b> endoscopic biopsy</p> <p><b>First test:</b></p> <ul style="list-style-type: none"> <li>n/r</li> </ul> <p><b>Controls biopsied:</b></p> <ul style="list-style-type: none"> <li>yes</li> </ul> <p><b>Biopsy criteria:</b> subtotal VA with crypt hyperplasia</p> <p><b>Checked IgA def.</b> n/r</p> <p><b>Studied tests</b> IgA-AGA; IgG-AGA; IgA-EMA; IgA-GP-tTG; IgA-HU-tTG</p> <p><b>Methodology:</b> for AGA-ELISA; for EMA-IF ME; for tTG - ELISA</p> <p><b>Cut-off:</b> for AGA: Ab titers were considered positive if IgA-AGA exceeded 4 U/mL and IgG-AGA exceeded 150 U/mL; for EMA - fluorescence in the muscularis mucosa at a serum dilution equal to or greater than 1:5</p>	<p><b>Celiac Group 1</b></p> <ul style="list-style-type: none"> <li>52 pediatric pts with biopsy proven CD</li> <li>age: mean 4.0 y, range 1.1-14.4 y</li> <li>% F: 73</li> </ul>	<p><b>Group 1:</b></p> <ul style="list-style-type: none"> <li>49 disease CO pts with biopsy proven non-CD</li> <li>age: mean 5.1 y, range 0.8-19.2 y</li> <li>% F: 41</li> </ul>	CD vs CO: IgA AGA	43	9	10	39	83	86	81	81
CD vs CO: IgG AGA	43	9	7	42	83	80	86	82				
CD vs CO: IgA EMA	48	4	5	44	92	90	90.5	92				
CD vs CO: anti-GP-tTG IgA	50	2	4	45	96	92	92.6	95.7				
CD vs CO: anti-h-tTG IgA	50	2	0	49	96	100	100	96				

# HLA DQ2/DQ8

**Evidence Table 2: Case-control study evidence for the use of HLA as a marker of CD**

Author, Year, Location	Study Design	Study Population	Control Population	Results		
				Celiac Group	Control	
					Group 1	Group 2
Iltanen, 1999, Finland	<ul style="list-style-type: none"> <li>• case control</li> <li>• monoclonal antibodies used to stain jejunal IELs and mucosal HLA-DR; DQA1*0501 and DQB1*0201 alleles determined</li> </ul>	<ul style="list-style-type: none"> <li>• 21 children with biopsy-confirmed CD</li> <li>• CD criteria: ESPGAN</li> <li>• mean age: 6.1 y, range 0.5-16.3 y</li> <li>• % F: n/r</li> <li>• ethnicity: n/r</li> </ul>	<p><b>Group 1:</b></p> <ul style="list-style-type: none"> <li>• 67 ethnically-, age-matched pts with biopsy-negative CD</li> <li>• ethnicity: n/r</li> </ul>	<ul style="list-style-type: none"> <li>• DQ2: 19 (90.48)</li> <li>• DQ8: n/a</li> <li>• DQ2 or 8: n/a</li> </ul> <p>Prevalence of CD: 0.24</p>	<ul style="list-style-type: none"> <li>• DQ2: 29.85</li> <li>• Sens: 0.90</li> <li>• Spec: 0.70</li> <li>• PPV: 0.49</li> <li>• NPV: 0.96</li> </ul>	<ul style="list-style-type: none"> <li>• DQ8: n/a</li> <li>• DQ2 or 8: n/a</li> </ul>

**Evidence Table 2 (cont'd): Case-control study evidence for the use of HLA as a marker of CD**

Author, Year, Location	Study Design	Study Population	Control Population	Results		
				Celiac Group	Control	
					Group 1	Group 2
Sacchetti, 1998, Southern Italy	<ul style="list-style-type: none"> <li>• case control</li> <li>• used PCR to examine prevalence of HLA heterodimer and HLA DRB104 alleles in healthy subjects, in CD-affected children, and in other age-matched subjects affected by confounding disease</li> </ul>	<ul style="list-style-type: none"> <li>• 122 children with biopsy-confirmed CD</li> <li>• CD criteria: ESPGAN</li> <li>• ethnicity: Italian</li> </ul>	<p><b>Group 1:</b></p> <ul style="list-style-type: none"> <li>• 32 age-matched pts with GI symptoms but negative biopsy for CD</li> <li>• Ethnicity: Italian</li> </ul> <p><b>Group 2:</b></p> <ul style="list-style-type: none"> <li>• 116 ethnically-matched healthy adult controls</li> </ul>	<ul style="list-style-type: none"> <li>• DQ2: 106 (86.89%)</li> <li>• DQ8: n/a</li> <li>• DQ2 or 8: n/a</li> </ul>	<ul style="list-style-type: none"> <li>• prevalence of CD: 0.79</li> <li>• DQ2: 6 (18.75%) Sens: 0.87 Spec: 0.81 PPV: 0.95 NPV: 0.62</li> <li>• DQ8: n/a</li> <li>• DQ2 or 8: n/a</li> </ul>	<ul style="list-style-type: none"> <li>• Prevalence of CD: 0.51</li> <li>• DQ2: 31 (26.72%) Sens: 0.87 Spec: 0.73 PPV: 0.77 NPV: 0.84</li> <li>• DQ8: n/a</li> <li>• DQ2 or 8: n/a</li> </ul>

## Celiac 2: Incidence and Prevalence of CD

### Incidence of CD in the General Population

**Evidence Table 3. Incidence of CD in the general population**

Study, year; country	Group at risk	Case ascertainment	Incidence	Other observations
Bode, 1996 Denmark	<b>Region:</b> County of Copenhagen <b>Period:</b> 1976-1991 retrospective <b>Age groups:</b> all adults >15 <b>Size:</b> 480,581 in 1976; 503,283 in 1992	<b>Institution(s):</b> sole 3 teaching hospitals + clinic of region <b>Register(s):</b> Discharged Dx w ICD 269-0.01; all small bowel biopsy from path depts; case register of all celiacs <b>Verification of accuracy:</b> review of case records <b>Dx Criteria:</b> at least 1 biopsy; good response to GFD; gluten challenge with re-biopsy if Dx uncertain <b>% capture:</b>	<b>Outcome measures:</b> cumulative incidence avg incidence rates adjusted for age/sex <b>Results:</b> <b># cases:</b> 101 (64F/37M) <b>Characteristics of cases:</b> <b>median age at Dx:</b> 40.1 y (range 16-81) <b>crude incidence:</b> 1.27/100,000 <b>cumulative incidence:</b> 19 y: 198/1000 births	<b>Women:</b> <b>Crude incidence:</b> 1.55/100,000 <b>Lifetime cumulative incidence:</b> 55.8/100,000 <b>Men:</b> <b>Crude incidence:</b> 0.96/100,000 <b>Lifetime cumulative incidence:</b> 35.3/100,000 <b>Prevalence (1992):</b> 45.9/100,000

**Evidence Table 3 (cont'd). Incidence of CD in the general population**

Study, year; country	Group at risk	Case ascertainment	Incidence	Other observations
Collin 1997 Finland	<p><b>Region:</b> Tampere City</p> <p><b>Period:</b> 1975-94</p> <p><b>Age groups:</b> Adult</p> <p><b>Size:</b> 121,000 in 1970; 147,000 in 1994</p> <p><b>Note:</b> Screening of high-risk groups in effect Systematic small bowel biopsy during gastroscopy</p>	<p><b>Institution(s):</b> Sole 3 centers that perform gastroscopy; The University Hospital. The City Hospital and the local health centre</p> <p><b>Register(s):</b> Membership list of local Coeliac Society</p> <p><b>Verification of accuracy:</b> All case records and specimen of CD pts were verified</p> <p><b>Dx Criteria:</b> Subtotal or severe partial VA and crypt hyperplasia; clinical or histological improvement on GFD</p> <p><b>% capture:</b> NR</p>	<p><b>Outcome measures:</b> Prevalence: All adult CD pts living in Tampere on Dec 31 1994 per 100 000 population. 5-y Incidence: All adult CD pts dx'ed between 1975 and 1994 per 100,000 pop.</p> <p><b>Results:</b></p> <p><b># cases:</b> 301 cases (222 F/79 M)</p> <p><b>Characteristics of cases:</b></p> <p><b>Crude incidence (/100,000 pop/yr):</b> 1975-79: 1.6 1980-84: 6.8 1985-89: 13 1990-94: 17.2</p> <p><b>Cumulative incidence:</b> NR</p>	<p><b>Median age at Dx:</b> 39 y (range 1-80)</p> <p><b>Prevalence in 1994:</b> 204/100,000 (95% CI 181-231)</p> <p><b>Mode of presentation:</b> Apparent symptoms: 24% Minor symptoms: 37% Screening: 27% Chance at endoscopy: 13%</p> <p><b>Causes for increased incidence:</b> Use of serologic screening Performance of small bowel biopsy on all pts undergoing gastroscopy Ability of all GP to refer pts to gastroscopy</p>

**Evidence Table 3 (cont'd). Incidence of CD in the general population**

Study, year; country	Group at risk	Case ascertainment	Incidence	Other observations
Corrao, 1996 Italy	<p><b>Region:</b> Provinces of Turin, Cuneo, Brescia, Umbria region, Sardinia region</p> <p><b>Period:</b> 1990-91</p> <p>prospective vs retrospective</p> <p><b>Age groups:</b> All ages</p> <p><b>Size:</b> Italian population census in 1991</p> <p>6,339,194 in 1991 (11.0% Italy); 107,048 live births (9.4% Italy)</p>	<p><b>Institution(s):</b> Dx lists of peds, med, GI depts in all hosp; Dx lists leading Italian hosp</p> <p><b>Register(s):</b> National Health Service records; local Italian Coeliac Society</p> <p><b>Verification of accuracy:</b> capture-recapture method</p> <p><b>Dx Criteria:</b> biopsy without challenge in 47.2%</p> <p>ESPGAN in 52.8%</p> <p><b>% capture:</b> 85.6%</p> <p><b>Exclusion(s):</b> pts residing outside Dx area</p>	<p><b>Outcome measures:</b> crude incidence: #new Dx/yr/100,000 pop cumulative incidence: #cases over period/100,000 births</p> <p><b>Results:</b> <b># cases:</b> 270 (181F/89M)</p> <p><b>Characteristics of cases:</b> <b>mean age at Dx:</b> children 3.7; adults 34; overall 21</p> <p><b>Crude incidence:</b> 2.13/100,000/y</p> <p><b>Cumulative incidence (/10,000 births):</b> 2 y: 5.75 5 y: 8.08 10 y: 10.30 15 y: 11.42</p>	<p><b>RR according to gender (95% CI):</b> Male: 1.0 Female: 1.90 (1.48, 2.45)</p> <p><b>RR according to age (95% CI):</b> 0-15: 1.0 16-39:0.33 (0.25-0.44) 40-59:0.21 (0.15-0.30) &gt;60: 0.11 (0.06-0.18)</p>

**Evidence Table 3 (cont'd). Incidence of CD in the general population**

Study, year; country	Group at risk	Case ascertainment	Incidence	Other observations
Hawkes, 2000 England	<b>Region:</b> South Glamorgan <b>Period:</b> 1980-95 retrospective <b>Age groups:</b> all ages <b>Size:</b> Registrar General mid-yr estimates for total pop, pop <16yr, total live births 415,900 in 1995	<b>Institution(s):</b> sole 3 teaching hospitals in Cardiff <b>Register(s):</b> Local Celiac Society, letters to GP from consultants <b>Verification of accuracy:</b> pathology & dietetic records from the 3 Cardiff teaching hospitals <b>Dx Criteria:</b> ESPGAN <b>% capture:</b> 100%	<b>Outcome measures:</b> Crude incidence: age-weighted avg/100,000 pop <b>Results:</b> <b># cases:</b> 137 (98F/39M) <b>Characteristics of cases:</b> <b>mean age at Dx:</b> children 5.3 yrs (range 0.9-14.9); adults 49.1 yrs (range 19.9-88.2) <b>Crude incidence:</b> <b>children (/100,000/yr):</b> 1981-85: 2.08 1986-90: 2.53 1991-95: 2.15 <b>adults (/100,000/yr):</b> 1981-85: 1.32 1986-90: 2.15 1991-95: 3.08 <b>Cumulative incidence:</b> NR	

**Evidence Table 3 (cont'd). Incidence of CD in the general population**

Study, year; country	Group at risk	Screening	Incidence	Other observations	Incidence	Other observations
Hoffenberg 2003 US	<p><b>Region:</b> Denver Colorado</p> <p><b>Period:</b> 1993-99 prospective</p> <p><b>Age groups:</b> Birth to 7 y; 987 for at least 1 y; 386 for at least 5 y</p> <p><b>Size:</b> Sample from 22 346 newborns screened for HLA, i.e. 987 infants from one institution (St Joseph's Hospital).</p> <p><b>Ethnicity:</b> 56% non Hispanic white 30% Hispanic 7% African American 2% Asian American 5% biracial/other</p> <p><b>Genotypes:</b> HLA-DR3/3; DR3/4, DQB1*0302; DR4, DQ8; DR5/7</p>	<p><b>Intervention:</b> HLA type newborn; follow-up of selected genotypes</p> <p><b>Follow-up:</b> CD serology at 9, 15 and 24 months of age, then yearly. If positive tTG on 2 separate occasions, or if positive tTG plus clinical suspicion, evaluation for small bowel biopsy.</p> <p><b>CD serology:</b> EMA IgA 1993-98; tTG IgA 1998-99; Retesting of EMA positive samples with tTG once test available; Total IgA; tTG IgG used on IgA deficient.</p> <p><b>Dx criteria:</b> Either positive tTG plus biopsy (Marsh 2 or greater), or two consecutive tTG positives 6 months apart</p>	<p><b>Outcome measures:</b> Time to the event of evidence of CD; Cumulative probability of being event-free for the entire population; Cumulative incidence of evidence of CD, stratified by genotype (DR3/3; DR3/x, DRx/x); RR evidence of CD by genotype</p> <p><b>Results:</b> <b># cases:</b> 40 tTG pos at least once; 19 with evidence of CD; 10 biopsy-confirmed; 9 with pos tTG at least twice</p> <p><b>Characteristics of cases:</b> 13F/6M Mean age 4.6 (range 2.6-6.5) 84% non-hispanic whites</p> <p><b>Crude incidence:</b> NR</p> <p><b>Cumulative incidence at age 5:</b> 9/1000 births (95% CI 4-20)</p> <p><b>Cumulative incidence at age 5 according to genotype:</b> HLA-DR3/3: 32/1000 (95% CI 10-110) HLA-DR3/x: 34/1000 (95% CI 30-117) HLA-DR3 neg: 3/1000 (95% CI 0-27)</p>	<p><b>RR according to gender:</b> Female: 3.34 (95% CI 1.00-10.9)</p> <p><b>RR according to ethnicity:</b> Non-hispanic whites: 3.33 (0.7-12.5)</p> <p><b>RR according to genotype</b> (Compared to HLA DR3 negatives): HLA-DR3/3: 9.1 (95% CI 1.7-48) HLA-DR3/x: 5.6 (95% CI 1.5-21)</p>		

**Evidence Table 3 (cont'd). Incidence of CD in the general population**

<b>Study, year; country</b>	<b>Group at risk</b>	<b>Case ascertainment</b>	<b>Incidence</b>	<b>Other observations</b>
Ivarsson, 2003, Sweden  Duplicate: Ivarsson Acta Paediatrica 2000;89:165	<b>Region:</b> Entire Sweden <b>Period:</b> 1973-97 prospective and retrospective <b>Age groups:</b> Children • 0-2 y • 2-15 y <b>Size:</b> 258,683 in 1973; 623,439 in 1991 <b>Dx Criteria:</b> ESPGAN	<b>Institution(s):</b> Prospective reporting from 9 departments of pediatrics <b>Register(s):</b> Sweden's National Child health program; central register of CD cases in children <15;  Statistics Sweden <b>Verification of accuracy:</b> local registers <b>% capture:</b>	<b>Outcome measures:</b> Incidence rate: #new cases/100,000 PYs; cumulative incidence: # cases up to age/1000 birth in same cohort <b>Results:</b> <b># cases of CD:</b> 2151 (1340F/811M) <b>Characteristics of cases:</b> <b>Crude incidence (/100,000PY):</b> 1973-84: 0-2: 65 (57-74) 1987-94: 0-2: 198 (186-210) 1997: 0-2: 51 (36-70) <b>Cumulative incidence at 2 y:</b> 1995: 1.7 (95% CI 1.3-2.1)/1000 births	<b>RR according to age:</b> 0-2 y: 1.0 2-15: 0.031 (0.022-0.043) <b>RR according to gender:</b> M: 1.0 F: 1.9 (1.7-2.1) <b>RR according to period:</b> 1973-84: 1.0 1985-95 1.7 (1.2-2.5) 1996-97 6.8 (4.5-10)

**Evidence Table 3 (cont'd). Incidence of CD in the general population**

<b>Study, year; country</b>	<b>Group at risk</b>	<b>Case Ascertainment</b>	<b>Incidence</b>	<b>Other observations</b>
Jansen, 1993 Netherlands	<b>Region:</b> Entire country <b>Period:</b> 1975-91 retrospective <b>Age groups:</b> all ages <b>Size:</b> Central Bureau for statistics 14,892,574 in 1990	<b>Institution(s):</b> <b>Register(s):</b> Dutch Coeliac Disease Society for 1992 <b>Verification of accuracy:</b> <b>Dx criteria:</b> at least 1 biopsy <b>% capture:</b> 97%	<b>Outcome measures:</b> Incidence: # new cases/100,000 pop/yr; Prevalence rate: # cases/100,000 <b>Results:</b> <b># cases:</b> 1983 <b>Characteristics of cases:</b> <b>Crude incidence</b> <b>(/100,000/yr):</b> 1981-88: 0.65 1988-90: 0.8 1991-92: 1.0	<b>Prevalence</b> 1990: 7.9/100,000 (95% CI 6.7-9.3) 1991: 11.3/100,000 (95% CI 9.5-1.0) 1992: 12.7/100,000 (95% CI 11.0-14.5)

**Evidence Table 3 (cont'd). Incidence of CD in the general population**

Study, year; country	Group at risk	Case ascertainment	Incidence	Other observations
Lopez Rodriguez, 2003 Spain	<p><b>Region:</b> Caceres, south-west Spain</p> <p><b>Period:</b> 1981-99 retrospective</p> <p><b>Age groups:</b> Children 0-14 y; Spanish National Statistics Institute</p> <p><b>Size:</b> 65 137 children in 1998; 98 641 in 1986 66 496 in 1996</p>	<p><b>Institution(s):</b> San pedro de Alcantara hospital, Province referral center for biopsy</p> <p><b>Register(s):</b></p> <p><b>Verification of accuracy:</b> clinical records</p> <p><b>Dx Criteria:</b> ESPGAN</p> <p><b>% capture:</b></p>	<p><b>Outcome measures:</b> crude incidence: # cases/100,000 pop/yr</p> <p><b>Results:</b></p> <p><b># cases:</b> 157 (90F/67M)</p> <p><b>Characteristics of cases:</b></p> <p><b>mean age at Dx:</b></p> <p>1981-90: 37.4+/-47.4 mo</p> <p>1991-99:43.9+/-43.7 mo</p> <p><b>Crude incidence (/100,000/yr):</b></p> <p>1981-90: 6.87 (5.26-8.83)</p> <p>1991-99: 16.04 (12.99-19.59)</p>	<p><b>RR according to period:</b></p> <p>1981-90: 1</p> <p>1991-99: 2.31 (1.61-3.31)</p> <p><b>RR according to age:</b></p> <p>4-15 y: 1.0</p> <p>0-4 y (1981-90): 18.2</p> <p>0-4 y (1991-99):42.04</p> <p><b>% with typical clinical presentation:</b></p> <p>1981-90: 83.6%</p> <p>1991-99: 58.3%</p> <p><b>Significant positive correlation between age at Dx and age of introduction of gluten:</b></p> <p>1981-90: r=0.296 , p=0.0211</p> <p>1991-99: r= 0.293, p=0.0037</p>

**Evidence Table 3 (cont'd). Incidence of CD in the general population**

Study, year; country	Group at risk	Case ascertainment	Incidence	Other observations
Magazzu, 1994 Sicily	<b>Region:</b> Entire country <b>Period:</b> 1975-89 retrospective <b>Age groups:</b> children <b>Size:</b> 69,945 births in 1989	<b>Institution(s):</b> All 4 Sicilian centers of pediatric GI in Catania, Messina and Palermo <b>Register(s):</b> Registrations from all 62 Sicilian health authorities; pt list of each GI pediatric centers; pt list of gluten-free products consumption <b>Verification of accuracy:</b> Chart review of cases; personal interviews; contact of family pediatrician <b>Dx Criteria:</b> ESPGAN <b>% capture:</b> <b>Exclusion(s):</b> no proof of remission on GFD; at least subtotal VA on biopsy; pts not traced back (1.5%)	<b>Outcome measures:</b> cumulative incidence rate by birth cohort: #new cases/#live birth in same birth cohort (95%CI); incidence density: # cases/(#birth in cohort/#yrs of follow up)/15 y obs period <b>Results:</b> <b># cases:</b> 1074 (607F/467M) <b>Characteristics of cases:</b> 99.4% Caucasian <b>Crude incidence:</b> <b>Cumulative incidence:</b> 1980 birth year: 1.19/1000 child.yr, 95% CI 0.96-1.45 1984 birth yr: 1.16/1000 child.yr, 95% CI 0.92-1.42 1989 birth yr: 0.13 /1000 child.yr, 95% CI 0.06-0.23	

**Evidence Table 3 (cont'd). Incidence of CD in the general population**

<b>Study, year; country</b>	<b>Group at risk</b>	<b>Case ascertainment</b>	<b>Incidence</b>	<b>Other Observations</b>
<p>Maki, 1990 Finland</p>	<p><b>Region:</b> Tampere City <b>Period:</b> 1961-84 <b>Age groups:</b> Children <b>Size:</b> 131,394 live births 1960-84 <b>Exclusion(s):</b> Cases not born in a certain strict area around the city</p>	<p><b>Institution(s):</b> Department of Paediatrics, University Central Hospital of Tampere <b>Register(s):</b> nil <b>Verification of accuracy:</b> Questionnaire to pts and their parents; hospital medical records; Child health center charts <b>Dx Criteria:</b> Small bowel biopsy; ESPGAN in 44% <b>% capture:</b> NR</p>	<p><b>Outcome measures:</b> Crude incidence: # cases/100,000pop/yr <b>Results:</b> <b># cases:</b> 96 <b>Characteristics of cases:</b> <b>Crude incidence:</b> 1964-73: 10.12/100,000 PYs 1974-83: 3.46/100,000 PYs 1960-84: 2.28/100,000 PYs <b>Cumulative incidence:</b></p>	<p>Significant correlation between the age at Dx and duration of breastfeeding  Decreased incidence in 0-2; increased incidence in 2-15; increased subclinical presentation in children</p>

**Evidence Table 3 (cont'd). Incidence of CD in the general population**

Study, year; country	Group at risk	Case Ascertainment	Incidence	Other Observations
Talley, 1994 US	<b>Region:</b> Olmstead County <b>Period:</b> 1960-90 retrospective all ages <b>Age groups:</b> <b>Size:</b>	<b>Institution(s):</b> <b>Register(s):</b> Rochester Epidemiology Project <b>Verification of accuracy:</b> Medical records reviewed; biopsy reviewed <b>Dx Criteria:</b> <b>% capture:</b> <b>Exclusion(s):</b> living outside territory at time dx	<b>Outcome measures:</b> <b>Results:</b> <b># cases:</b> 28 (19F/9M) <b>Characteristics of cases:</b> <b>Crude incidence:</b> Overall: 1.2  1960-69: 0.9 1970-79: 0.7 1980-90: 1.7 <b>Cumulative incidence:</b>	0-14:0.4/100,000PYs 15-44:0.7 45-64:2.5 >65 2.1  prevalence 1991: 21.8/100 000 <b>Median age at Dx:</b> median 50 (interQ range 35-62)

**Evidence Table 3 (cont'd). Incidence of CD in the general population**

Study, year; country	Group at risk	Case ascertainment	Incidence	Other Observations
Weile, 1993 Denmark	<b>Region:</b> Copenhagen County <b>Period:</b> 1960-88 retrospective <b>Age groups:</b> children <b>Size:</b> 1,972,864 live births <b>Dx criteria:</b> Biopsy-proven (90%); clinically suspected CD (10%)	<b>Institution(s):</b> <b>Register(s):</b> National Central register of Diagnosis 1977-87 Local register of pts admitted for SB biopsy Celiac Patient Society <b>Verification of accuracy:</b> Data twice thoroughly evaluated <b>% capture:</b>	<b>Outcome measures:</b> Cumulative incidence: #cases/1000 birth in birth cohort <b>Results:</b> <b># cases:</b> 176 (103F/73M) <b>Characteristics of cases:</b> <b>Crude incidence:</b> 1988: 0.102/1000 births <b>Cumulative incidence:</b> median: 0.089/1000 live births (range 0-0.182) age 5: 0.118/1000 births	

## Prevalence and Incidence in the General Population—Different Geographic and Racial/Ethnic Populations

Evidence Table 4: Prevalence/incidence of CD in the general population

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Borch, 2000 Sweden  Duplicate: no	<b>Publication type:</b> journal <b>Study design:</b> cross-sectional prevalence <b>Test/methodology:</b> biopsy; IgA & IgG-AGA; IgA-EMA ME <b>Biopsy criteria/description:</b> Alexander Grade <b>Confirmatory test:</b> n/r <b>Checked IgA def.</b> n/r	<b>Ethnicity:</b> 459 Swedish; 17 Northern Europeans; outside of Northern Europe <b>Patient type/# screened:</b> n=2,000 healthy adults invited to participate in endoscopy study of relation of H.pylori to duodenitis; 482 agreed to participate <b>Demographics:</b> age range: 34-75 y <b>Incidence:</b>	first serology: 96 confirmation serology: 7 biopsy proven: 9			Not all systematically biopsied; only those with suggestive endoscopic features

**Evidence Table 4 (cont'd): Prevalence/incidence of CD in the general population**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Carlsson, 2001 Sweden  Duplicate: no	<b>Publication type:</b> journal <b>Study design:</b> cross-sectional prevalence <b>Test/methodology:</b> AGA, cut-off at 25AU; indirect IF EMA, cut-off at titre >5; biopsy using Watson capsule <b>Biopsy criteria/description:</b> used Waston capsule; revised ESPGAN? for classification: normal, subnormal (villous length/crypt length<2, increased number of inflammatory cells in the muscosa with or without damage to the surface epithelium and the brush border), or total VA (flat mucosa) <b>Confirmatory test:</b> biopsy <b>Checked IgA def.</b> n/r	<b>Ethnicity:</b> n/a <b>Patient type/# screened:</b> unselected; all children born July 1992 through June 1993 <b>Demographics:</b> n=690 (out of 1287/3007 children initially contacted, excluding 22 known CD cases) mean age: 32 mos; range: 27-41 mos <b>Incidence:</b>	5.1% (35/690) had either EMA or AGA positive; (13/690) EMA alone; by biopsy: 1.6% (11/35/690) serology positives underwent jejunal biopsies, 11 of them became biopsy-confirmed CDs			

**Evidence Table 4 (cont'd): Prevalence/incidence of CD in the general population**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Catassi, 1996, Italy  Duplicate: no	<b>Publication type:</b> journal <b>Study design:</b> cross-sectional prevalence <b>Test/methodology:</b> IgA or IgG-AGA <b>Biopsy criteria/description:</b> ESPGAN <b>Confirmatory test:</b> EMA and biopsy <b>Checked IgA def.</b> n/r	<b>Ethnicity:</b> n/a <b>Patient type/# screened:</b> School age children <b>Demographics:</b> n=17,201; age range: 6- 15 y <b>Incidence:</b>	1289/17201 (7.5%) AGA- IgG or IgA pos; confirmed with EMA=111/17201; biopsy on 98/111 was pos in 75 + 7 who had no biopsy but CD by various investigations			

**Evidence Table 4 (cont'd): Prevalence/incidence of CD in the general population**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Catassi, 2000, Italy  Duplicate: no	<b>Publication type:</b> journal <b>Study design:</b> cross-sectional prevalence <b>Test/methodology:</b> IgG-AGA (7 AU); IgA-AGA (15 AU); IgA-EMA indirect IF (1:5 dilution); biopsy <b>Biopsy criteria/description:</b> ESPGAN; Marsh; grade I = isolated increase gamma delta IEL count, grade II= increase gamma delta lymphocyte count with shortened villi/crypt hyperplasia, grade III= subtotal VA <b>Confirmatory test:</b> biopsy <b>Checked IgA def.</b> yes, 6 found	<b>Ethnicity:</b> n/a <b>Patient type/# screened:</b> general public, students <b>Demographics:</b> n=2,096; pedi age range: 11-15 y % F: 49.5 <b>Incidence:</b>	0.86% (18/2,096)			

**Evidence Table 4 (cont'd): Prevalence/incidence of CD in the general population**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Collin, 2002 Finland  Duplicate: no	<b>Publication type:</b> journal <b>Study design:</b> cross-sectional prevalence <b>Test/methodology:</b> biopsy <b>Biopsy criteria/description:</b> ESPGAN <b>Confirmatory test:</b> biopsy <b>Checked IgA def.</b> n/r	<b>Ethnicity:</b> n/a <b>Patient type/# screened:</b> 1. GERD group: regurgitation or heartburn; 2. dyspepsia group; 3. suspected CD <b>Demographics:</b> n=9,971; adolescent and adult median age: 58 y; range: 12-93 y % F: 63.5 <b>Incidence:</b>	GERD: 0.61% (18/2974)	dyspepsia: 0.77% (41/5347)	CD: 5.33% (88/1650)	

**Evidence Table 4 (cont'd): Prevalence/incidence of CD in the general population**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Corazza, 1997 Republic of San Marino  Duplicate: no	<p><b>Publication type:</b> journal</p> <p><b>Study design:</b> cross-sectional prevalence</p> <p><b>Test/methodology:</b> indirect IF EMA titre &gt;1:5; biopsy</p> <p><b>Biopsy criteria/description:</b> n/r</p> <p><b>Confirmatory test:</b> biopsy</p> <p><b>Checked IgA def.</b> no, but mentioned as such that it could have caused some misclassification of pts, but the effect should be minimal given the powerful sensitivity and specificity of EMA test</p>	<p><b>Ethnicity:</b> n/a</p> <p><b>Patient type/# screened:</b> random sample stratified for age and sex</p> <p><b>Demographics:</b> n=2,237; adult median age: 44 y; range, 20-87 y % F: 53.2</p> <p><b>Incidence:</b></p>	by both EMA and biopsy: 1 in 559 pts, or 1.79 per 1,000 (0.18%)			

**Evidence Table 4 (cont'd): Prevalence/incidence of CD in the general population**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Csizmadia 1999 Netherlands  Duplicate: no	<p><b>Publication type:</b> Journal (research letter)</p> <p><b>Study design:</b> cross-sectional prevalence</p> <p><b>Test/methodology:</b> IgA-EMA (methodology n/r)</p> <p><b>Biopsy criteria/description:</b> n/r</p> <p><b>Confirmatory test:</b> small bowel biopsy, subset of 27 had HLA typing for DQ2</p> <p><b>Checked IgA def.</b> n/r</p>	<p><b>Ethnicity:</b> n/a</p> <p><b>Patient type/# screened:</b> 6,127 children between ages of 2-4 y general population</p> <p><b>Demographics:</b> 6,127 pediatric pts age: range 2-4 y % F: n/r</p> <p><b>Incidence:</b> Time period: between May 1997-June 1998</p>	1.2% (75/6127) by IgA-EMA, 18/75 refused small bowel biopsy; 0.51% (31/75/6127) VA (CD)			26/27 with VA had the allele HLA-DQ2; prevalence 1:198 in children 2-4 y

**Evidence Table 4 (cont'd): Prevalence/incidence of CD in the general population**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Dickey 1992, Ireland  Duplicate: no	<b>Publication type:</b> journal <b>Study design:</b> cross-sectional prevalence <b>Test/methodology:</b> IgA-AGA <b>Biopsy criteria/description:</b> no biopsy performed <b>Confirmatory test:</b> n/r <b>Checked IgA def.</b> n/r	<b>Ethnicity:</b> n/a <b>Patient type/# screened:</b> healthy blood donors <b>Demographics:</b> n=443; adults, age range 18-65 y <b>Incidence:</b>	By first serology: 5			

**Evidence Table 4 (cont'd): Prevalence/incidence of CD in the general population**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Fasano, 2003, USA  Duplicate: no	<b>Publication type:</b> journal <b>Study design:</b> cross-sectional prevalence <b>Test/methodology:</b> EMA-IF; ME or HUC; positive at 1:10; all positive EMA tested with human tTG ELISA positive at 2 SD above mean of healthy controls; HLA DQ2 and DQ8 <b>Biopsy criteria/description:</b> htTG; biopsy; also small subset 98 EMA positive and 114 EMA neg had HLA DQ2/8 tested <b>Checked IgA def.</b> <ul style="list-style-type: none"> <li>• n/r</li> </ul>	<b>Ethnicity:</b> 94% White; 3% Black; 1.5% Hispanic, 1% Asian, 0.5% other <b>Patient type/# screened:</b> 9,019 at risk of CD; 4,126 not at risk <b>Demographics:</b> at risk: symptoms of CD (1,326 children, 1,909 adults); CD associated disorders; 4,508 1st deg relatives; 1,275 2nd deg relatives; not at risk: 2,000 blood donors (mean age 39 y, range 19-65 y); 1,119 school children (mean age 12.3 y, range 6-18 y); 1,007 adults and children for routine physical (mean age 39 y, and 13.7 y, range 19-71 y and 2-18 y, respectively) <b>Incidence:</b>	1) at risk: a) 1st deg relatives-205/4508 (4.55%); children-54/1294 (4.17%); adults-151/3214 (4.70%); b) symptomatic adults-28/1910 (1.47%); children-53/1326 (4.00%) 2) not at risk-1/4126 (0.75%); adults-27/2845 (0.95%); children-4/1281(0.31%); biopsy in EMA pos-Marsh I-0%; II-30/116 (25.9%); IIIa-46/116 (39.7%); IIIb-24/116 (20.7%); IIIc-16/116 (13.8%); HLA DQ2-76/98 (78%); DQ8-16/98 (16%); DQ2 and 8-6/98 (6%); all EMA pos were also tTG pos			116/350 biopsied

**Evidence Table 4 (cont'd): Prevalence/incidence of CD in the general population**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Green, 2000 USA  Duplicate: no	<b>Publication type:</b> journal <b>Study design:</b> cross-sectional prevalence <b>Test/methodology:</b> EGD, biopsy <b>Biopsy criteria/description:</b> n/r <b>Confirmatory test:</b> n/r <b>Checked IgA def.</b> n/r	<b>Ethnicity:</b> n/a <b>Patient type/# screened:</b> n=1,749 adults; suggestive endoscopic features of CD while undergoing routine endoscopy <b>Demographics:</b> n/r <b>Incidence:</b>	Biopsy proven: 9			Not all systematically biopsied; only those with suggestive endoscopic features

**Evidence Table 4 (cont'd): Prevalence/incidence of CD in the general population**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Grodzinsky, 1996 Sweden  Duplicate: no	<b>Publication type:</b> journal <b>Study design:</b> cross-sectional prevalence <b>Test/methodology:</b> IgA-AGA; both IgA- and IgG-AGA <b>Biopsy criteria/description:</b> n/r <b>Confirmatory test:</b> ? <b>Checked IgA def.</b> n/r	<b>Ethnicity:</b> n/a <b>Patient type/# screened:</b> healthy adult blood donors <b>Demographics:</b> n=1,866; median age 38.5 y, range 18-64 y <b>Incidence:</b>	By first serology: 124 by confirmation serology: 11 by biopsy: 7			IgA or IgG-AGA confirmed by having both and by biopsy; prevalence by IgA-EMA n/r

**Evidence Table 4 (cont'd): Prevalence/incidence of CD in the general population**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Hovdenak, 1999 Norway  Duplicate: no	<p><b>Publication type:</b> journal</p> <p><b>Study design:</b> cross-sectional prevalence</p> <p><b>Test/methodology:</b> IgA and IgG-AGA, ELISA, cut-off levels: for IgA <math>\geq 0.35</math> and for IgG <math>\geq 0.90</math>; IgA-EMA, IF, cut-off n/r</p> <p><b>Biopsy criteria/description:</b> endoscopic biopsy; at least 3 biopsy specimens taken; classification as either normal, partial VA or subtotal VA</p> <p><b>Confirmatory test:</b> biopsy</p> <p><b>Checked IgA def.</b> n/r</p>	<p><b>Ethnicity:</b> n/a</p> <p><b>Patient type/# screened:</b> 2,069 healthy blood donors screened for CD; 1st level of screening: measuring of IgA and IgG AGA; 2nd level of screening: measuring IgA-EMA in AGA positives; 3rd level of screening - biopsy in IgA EMA positives</p> <p><b>Demographics:</b> n=2,069; age: median 39 y, range 18-67 y M/F ratio: 1.65</p> <p><b>Incidence:</b></p>	Prevalence of CD in the screening group was 1:340 (7/2069); prevalence of test positivity: 83 of 2069 were positive for AGA; EMA was positive in 8 of these 83 pts; biopsy proven CD was diagnosed in 7 of these 8 pts			Biochemical analysis showed iron deficiency in 2 pts, hypocalcemia in 1 pts and low serum zinc in 5 pts; 4 pts had osteoporosis and another 4 had decreased vitamin E serum concentration

**Evidence Table 4 (cont'd): Prevalence/incidence of CD in the general population**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Ivarsson, 1999 Sweden  Duplicate: no	<p><b>Publication type:</b> journal</p> <p><b>Study design:</b> Cross-sectional prevalence</p> <p><b>Test/methodology:</b> IgA and IgG AGA - ELISA, cut-off n/r; IgA EMA - IF on a ME, cut-off dilution level varied from 1/20 to 1/320; positive if presence of characteristic reticulin-like staining pattern; serum IgA level measurement using routine nephelometric method, level below 0.05 g/L was defined as IgA deficient</p> <p><b>Biopsy criteria/description:</b> criteria for the diagnosis of CD was biopsy demonstrating enteropathy grade III to IV according to Alexander</p> <p><b>Confirmatory test:</b> endoscopic biopsy</p> <p><b>Checked IgA def.</b> yes, using routine nephelometric method; 0.2% (4/1892) pts were found to have IgA deficiency</p>	<p><b>Ethnicity:</b> n/a</p> <p><b>Patient type/# screened:</b> 1,894 individuals taken randomly from 1994 WHO MONICA study population and screened for CD</p> <p><b>Demographics:</b> n=1,894 age (y): median 50, range 25-74 % F: 50</p> <p><b>Incidence:</b></p>	Prevalence of CD was 5.3 per 1000 (10/1894); prevalence of newly diagnosed CD was at least 4 per 1000 (8/1892) - (1 woman with positive IgA EMA refused biopsy); as for the prevalence of test positivity: IgA and/or IgG AGA - positive in 23% (438/1892); IgA EMA - positive in 0.5% (9/1892); all CD pts had elevated IgA EMA			CD was more common amongst women (7 F and 3 M) and the older age groups, with the highest prevalence in the interval 55-64 y - 50%

**Evidence Table 4 (cont'd): Prevalence/incidence of CD in the general population**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Jager, 2001 Germany  Duplicate: no	<b>Publication type:</b> Journal <b>Study design:</b> Cross-sectional prevalence <b>Test/methodology:</b> IDDM-associated antibodies: islet cell antibodies (ICA) - detected by IF, insulin autoantibodies (IAA) - radioimmunoassay, anti-IA-2 antibodies, and anti-GAD65 antibodies (anti-GADA) - both radioligand binding; thyroid disease-associated antibodies: anti-thyroid peroxidase (anti-TPO) and anti-thyroglobulin (anti-TG) - both ELISA; pernicious anemia-associated antibodies: anti-gastric parietal cell antibodies (anti-GPC) - IF; adrenalitis-associated antibodies: anti-adrenal cortex antibodies - IF; celiac disease-associated antibodies: IgA AGA, IgG AGA, IgA-tTG - all ELISA <b>Biopsy criteria/description:</b> n/r <b>Confirmatory test:</b> none <b>Checked IgA def.</b> n/r	<b>Ethnicity:</b> n/a <b>Patient type/# screened:</b> 197 pts with a new onset of IDDM diagnosed according to WHO criteria; 882 first-degree relatives; 150 healthy controls without a family history of IDDM <b>Demographics:</b> 197 pts with IDDM (age (y): median 16, range 5-27, 43% F); 882 first-degree relatives - 485 were parents (age (y): median 43, range 22-59), 382 siblings and 15 offspring of IDDM pts (age (y): median 16, range 2-41) <b>Incidence:</b>	Recent-onset IDDM (n=197): IgG AGA - 10.2%; IgA AGA - 7.6%; anti-tTG IgA - 9.7%; at least 1 antibody positive - 16.8%	First-degree relatives (n=882): IgG AGA - 5.6%; IgA AGA - 2.6%; anti-tTG IgA - 3.2%; at least 1 antibody positive- 7.3%	Healthy control subjects (n=150): IgG AGA - 3.2%; IgA AGA - 2.0%; anti-tTG IgA - 2.6%; at least 1 antibody positive- 4.6%	IDDM associated antibodies and thyroid antibodies were significantly more frequent both in recent-onset IDDM group and first-degree relatives, compared to controls (p<0.05); the relevance of IgG/IgA AGA and IgA tTG was significantly higher in the group of recent-onset IDDM compared to first degree relatives and controls (p<0.05), but the difference between first-degree relatives and controls did not reach statistical significance; the overall frequency of GPC and adrenal antibodies did not differ significantly among the groups; as for coexistence of antibodies, recent-onset IDDM pts presented with 27% of the subjects testing antibody-positive-specific for 2 or more the envisaged disorders compared with 3.1% in the group of first-degree relatives and 0% of control population (p<0.05); recent-onset IDDM (n=197): IDDM-associated antibodies: ICA 82.1%; anti-GADA - 76.0%; anti-IA-2 antibodies - 44.4%; IAA - 37.8%; at least 1 antibody - 93.4%; Thyroid disease-associated antibodies: anti-TPO+TG antibodies - 18.4%; pernicious anemia-associated antibodies: anti-GPC - 5.6%; adrenalitis-associated antibodies: anti-adrenal cortex antibodies - 1.0%; first-degree relatives (n=882): IDDM-associated antibodies: ICA 4.9%; anti-GADA - 7.6%; anti-IA-2 antibodies - 4.0%; IAA - 3.4%; at least 1 antibody - 11.6%; Thyroid disease-associated antibodies: anti-TPO+TG antibodies - 7.8%; pernicious anemia-associated antibodies: anti-GPC -6.0%; adrenalitis-associated antibodies: anti-adrenal cortex antibodies - 1.1%; healthy control subjects (n=150): IDDM-associated antibodies: ICA 1.3%; anti-GADA - 2.6%; anti-IA-2 antibodies - 0.6%; IAA - 0.6%; at least 1 antibody - 4.0%; Thyroid disease-associated antibodies: anti-TPO+TG antibodies - 3.2%; pernicious anemia-associated antibodies: anti-GPC -3.2%; adrenalitis-associated antibodies: anti-adrenal cortex antibodies - 0.7%

Evidence Table 4 (cont'd): Prevalence/incidence of CD in the general population

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Johnston, 1998 UK  Duplicate: no	<p><b>Publication type:</b> journal</p> <p><b>Study design:</b> Cross-sectional prevalence</p> <p><b>Test/methodology:</b> IgA AGA - ELISA, normal range of 0-99 (97.5th percentile); IgA EMA - IF on a ME, positive was taken at a titre of 1:5</p> <p><b>Biopsy criteria/description:</b> enteropathy consistent with CD was considered to include severe partial VA, sub-total or total VA</p> <p><b>Confirmatory test:</b> biopsy; Watson-Crosby capsule; biopsy done in 51 out of 87 pts in MONICA 1991 survey pts and in 20 out of 72 pts in MONICA 1983 survey group</p> <p><b>Checked IgA def.</b> n/r</p>	<p><b>Ethnicity:</b> n/a</p> <p><b>Patient type/# screened:</b> 1) MONICA 1991 survey study: 89 subjects tested positive for CD serology taken from 1823 subjects randomly tested for CD (2 pts were excluded from further analysis because they had CD diagnosis prior to follow-up of the screening program, but included in the assessment of prevalence); 2) MONICA 1983 survey study: 72 CD pts out of 102 who consented to a follow-up of 11.2 y (range 11.3-11.9)</p> <p><b>Demographics:</b> MONICA 1991: 89 subjects with positive CD serology; age (y): mean 50.9, range n/r, 49.4% F; age- and sex-matched 89 controls: age (y): mean 51.1, range n/r, 49.4% F MONICA 1983: 72 with a known CD; age (y): mean 58.1, range n/r, 53% F; no controls were included in this survey</p> <p><b>Incidence:</b></p>	MONICA 1991: 0.82% [15 (2 with a CD prior to screening program and 13 - screening revealed CD pts) out of 1823] biopsy proven CD making a prevalence of 1:122	MONICA 1983: the estimated prevalence for CD from this survey is 4/1206, or 1:301; if the 2 deceased subjects are included prevalence raises to 6/1206, or 1:201		<p>MONICA 1991 survey: comparing the untreated CD group with controls, there were no differences between symptom profile or laboratory parameters: attendances at their General Practitioners for diarrhea, fatigue, anemia or weight loss;</p> <p>MONICA 1983 survey: comparison of standardized mortality rates between serology-positive subjects and the general population showed no significant difference (4 deaths observed from cancer during a follow-up, compared to the 4.28% (95% CI 1.09, 10.24) expected cancer deaths, giving a relative risk of cancer deaths as 0.94 (95% CI 0.3, 2.4); 13 deaths in total observed during follow-up, compared to 14.11 (95% CI 6.92, 22.23) expected deaths, giving relative risk of all deaths as 0.92 (95% CI 0.5, 1.6)</p>

**Evidence Table 4 (cont'd): Prevalence/incidence of CD in the general population**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Kolho, 1998 Finland  Duplicate: no	<b>Publication type:</b> journal <b>Study design:</b> cross-sectional prevalence <b>Test/methodology:</b> EMA – IF HUC; methodology n/r <b>Biopsy criteria/description:</b> capsule or endoscopic biopsy; ESPGAN criterias; CD3-positive T cell calculation (limit for high cell number was 77 cells/mm; limit for a moderate cell number was 63 cells/mm); gamma/delta T-cell receptor-bearing cell calculation (limit for a high cell number was 8.2 cells/mm) <b>Confirmatory test:</b> capsule or endoscopic biopsy <b>Checked IgA def.</b> n/r	<b>Ethnicity:</b> n/a <b>Patient type/# screened:</b> not at risk: 1,070 adults of Finnish ancestry screened for CD <b>Demographics:</b> 1,070 adult population with no clinical signs of CD screened at Helsinki University General Hospital during 1996 <b>Incidence:</b>	11 out of 1,070 were positive for IgA EMA; 8 out of these 11 were found to have CD on biopsy, giving the prevalence of CD in this group 1:130			In 7 pts agreeing to start GFD, a 2nd biopsy done after 6 mos, revealed villous structural changes to normal in 6 pts and in 1 to subtotal atrophy

**Evidence Table 4 (cont'd): Prevalence/incidence of CD in the general population**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Maki, 2003 Finland  Duplicate: no	<p><b>Publication type:</b> journal</p> <p><b>Study design:</b> Cross-sectional prevalence</p> <p><b>Test/methodology:</b> IgA-tTG, Celikey assay with low-cut off of 5U/mL; IgG-tTG, ELISA; IgA- and IgG-EMA, IF; total serum IgA - nephelometerical determination with serum levels of &lt;0.05 g/L indicative of IgA deficiency; HLA- DR; DQ2 and DQ8</p> <p><b>Biopsy criteria/description:</b> endoscopic biopsy; the ratio of villous height and crypt depth less than 2 was considered to be indicative of CD</p> <p><b>Confirmatory test:</b> biopsy in children with IgA EMA and IgA-tTG positivity (in 2001)</p> <p><b>Checked IgA def.</b> yes</p>	<p><b>Ethnicity:</b> n/a</p> <p><b>Patient type/# screened:</b> 3,654 schoolchildren</p> <p><b>Demographics:</b> asymptomatic schoolchildren median age: 12 y, range 7-16 y at the time of 1st sampling (1994)</p> <p><b>Incidence:</b></p>	Prevalence of CD was 1:99 (37/3654); prevalence of test positivity for CD was 56/3654; 10 of these were identified by symptoms, and of remaining 46, 27 had abnormal biopsy. all but two (52) of antibody pos pts had either HLA-DQ2 or the HLA-DQ8 haplotype; Prevalence of combination of antibody positivity and CD-associated HLA haplotype was 1 in 67			Unclear if 10 pts screened with serology were biopsied or not (abstract vs result table)

**Evidence Table 4 (cont'd): Prevalence/incidence of CD in the general population**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Mazzeti, 1992 Italy  Duplicate: no	<b>Publication type:</b> journal <b>Study design:</b> cross-sectional prevalence <b>Test/methodology:</b> IgA-AGA; biopsy <b>Biopsy criteria/description:</b> atrophic or completely absent villi <b>Confirmatory test:</b> n/r <b>Checked IgA def.</b> n/r	<b>Ethnicity:</b> n/r <b>Patient type/# screened:</b> n=3,022; Roman school children <b>Demographics:</b> age range: 13-15 y olds <b>Incidence:</b>	By first AGA-IgA: 19 biopsy proven: 18			Not all systematically biopsied; only those with suggestive endoscopic features

**Evidence Table 4 (cont'd): Prevalence/incidence of CD in the general population**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Not, 1998, USA  Duplicate: no	<p><b>Publication type:</b> journal</p> <p><b>Study design:</b> Cross-sectional prevalence</p> <p><b>Test/methodology:</b> IgG and IgA-AGA - ELISA (goat immunoglobulin) cut-off was above mean <math>\pm</math> 2 SD; IgA-EMA (IgA-AGA or IgG-AGA) - indirect IF on either ME or HU, cut-off n/r</p> <p><b>Biopsy criteria/description:</b> n/r</p> <p><b>Confirmatory test:</b> no biopsy in the 96 IgA/IgG pos or 8 EMA positive pts; HLA haplotype typed in 4 EMA-positive and 23 EMA-negative donors; all 4 EMA-positives carried CD-associated alleles: 3 had DQA1*0501 and DQB1*0201 haplotype and 1 - DQA1*03 and DQB1*0302</p> <p><b>Checked IgA def.</b> yes; none of 86 donors with positive IgG AGA and negative IgA AGA/EMA had IgA deficiency</p>	<p><b>Ethnicity:</b> 1,740 Caucasians (87%), 230 African-American (11.5%), and 30 Asians (1.5%)</p> <p><b>Patient type/# screened:</b> 2,000 healthy blood donors</p> <p><b>Demographics:</b> mean age: 39 y % F: 48</p> <p><b>Incidence:</b></p>	Prevalence of test positivity: 4.8% (96/2000) for IgA and/or IgG; 0.4% (8/2000) for EMA			No biopsy performed to diagnose CD; Confirmatory test: HLA DQA1& DQB1

**Evidence Table 4 (cont'd): Prevalence/incidence of CD in the general population**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Pittschieler, 1996 Italy  Duplicate: no	<b>Publication type:</b> journal <b>Study design:</b> Cross-sectional prevalence <b>Test/methodology:</b> IgA- & IgG-AGA; IgA-EMA; biopsy <b>Biopsy criteria/description:</b> partial or total VA <b>Confirmatory test:</b> ? <b>Checked IgA def.</b> n/r	<b>Ethnicity:</b> 2,778 German; 1,837 Italian <b>Patient type/# screened:</b> healthy consenting adults <b>Demographics:</b> n=4,615; median age (y) 36.6; range 18-82 <b>Incidence:</b>	By first serology: 140 By confirmation serology: 9 By biopsy: 9			

**Evidence Table 4 (cont'd): Prevalence/incidence of CD in the general population**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Riestra, 2000 Spain  Duplicate: no	<p><b>Publication type:</b> journal</p> <p><b>Study design:</b> cross-sectional prevalence</p> <p><b>Test/methodology:</b> IgG/IgA-AGA-ELISA; values above 25 (children) and 34 (adults) AU for IgA or above 46 (children) and 42 (adults) AU for IgG were considered positive; IgA-EMA, IF, sera manifesting fluorescence at a titre of at least 1:5 was considered positive; The study was conducted as a 1) two step (determination of IgA/IgG AGA, if positive measuring IgA-EMA); and a 2) one-step protocol (measuring IgA-EMA)</p> <p><b>Biopsy criteria/description:</b> endoscopic biopsy; Marsh</p> <p><b>Confirmatory test:</b> EMA- indirect IF ME; titre≥1/5; biopsy in IgA and IgG pos/IgG AGA pos with IgA deficiency or isolated EMA positives; HLA DQ2</p> <p><b>Checked IgA def.</b> yes; none were found to have IgA deficiency</p>	<p><b>Ethnicity:</b> n/a</p> <p><b>Patient type/# screened:</b> 1,170 randomly selected individuals from general population</p> <p><b>Demographics:</b> age (y): mean 44.9+-20.9; range 2-89; 55.3% F</p> <p><b>Incidence:</b></p>	<p>overall prevalence of CD was 2.6:1000; in two-step screening prevalence rate was 0.8:1000 (1/1170, 95% CI 0-55%); in one-step screening prevalence was 1.7:1000 (2/1170, 95% CI 0-6.9%); as for test positivity: IgA or IgG AGA was positive in 15% (174/1170); 1/174 confirmed with EMA and biopsy; 1 CD biopsy proven CD was confirmed even if AGA and EMA were negative; HLA-DQ2 allele was found in 2/3 new CD pts</p>			

**Evidence Table 4 (cont'd): Prevalence/incidence of CD in the general population**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Rostami, 1999 Netherlands  Duplicate: no	<p><b>Publication type:</b> journal</p> <p><b>Study design:</b> cross-sectional prevalence</p> <p><b>Test/methodology:</b> IgA-EMA, IF; IgA-nephelometry; methodology n/r</p> <p><b>Biopsy criteria/description:</b> EPSGAN; Marsh</p> <p><b>Confirmatory test:</b> endoscopic biopsy; endoscopically guided capsule (Fujinon)</p> <p><b>Checked IgA def.</b> yes; none were found to have IgA deficiency</p>	<p><b>Ethnicity:</b> n/a</p> <p><b>Patient type/# screened:</b> 1,000 healthy blood donors</p> <p><b>Demographics:</b> n/r</p>	Prevalence of CD in a healthy donors was 1 in 330 (3/1000); as for the prevalence of test positivity: 3/1000 were positive for EMA; biopsy in all of these 3 confirmed CD: 2/3 Marsh IIIb; 1/3 Marsh II			All 3 EMA positive pts with CD carried the known susceptibility alleles for CD - HLA-DQA1*0501 and HLA-DQB1*0201

**Evidence Table 4 (cont'd): Prevalence/incidence of CD in the general population**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Rutz, 2002 Switzerland  Duplicate: no	<p><b>Publication type:</b> journal</p> <p><b>Study design:</b> cross-sectional prevalence</p> <p><b>Test/methodology:</b> IgA-EMA, indirect IF on ME; IgA-tTG- ELISA with lower threshold value 0.2 g/L; IgG-AGA and IgA-AGA</p> <p><b>Biopsy criteria/description:</b> Marsh criteria; endoscopic biopsy</p> <p><b>Confirmatory test:</b> endoscopic biopsy</p> <p><b>Checked IgA def.</b> yes (0/1450)</p>	<p><b>Ethnicity:</b> n/a</p> <p><b>Patient type/# screened:</b> 1,450 students</p> <p><b>Demographics:</b> age range 12-18 y; 871 (60.1%) F</p>	<p>Prevalence of CD was 1 in 132 (0.75%; 11/1450); as for the prevalence of test positivity: 11/1450 EMA/tTG positive; 10/11 (1refusal) EMA/TTG/AGA/AG G positive (second level of screening); 9/10 (1 refusal) biopsied: 8/9 Marsh III</p>			<p>Assessing prevalence of CD authors included 2 pts who were EMA and TTG positive but refused biopsy as well as 1 pts with positive tests and a normal mucosal histology, calling it latent CD; biopsy proven CD was diagnosed in 8 pts, but prevalence was calculated taking into account 11 pts</p>

**Evidence Table 4 (cont'd): Prevalence/incidence of CD in the general population**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
<p>Sanders, 2003 UK</p> <p>Duplicate: no</p>	<p><b>Publication type:</b> Journal</p> <p><b>Study design:</b> Cross-sectional prevalence</p> <p><b>Test/methodology:</b> IgG and IgA - ELISA; EMA- indirect IF of ME; methodology n/r</p> <p><b>Biopsy criteria/description:</b> Revised Marsh</p> <p><b>Confirmatory test:</b> biopsy</p> <p><b>Checked IgA def.</b> yes</p>	<p><b>Ethnicity:</b> n/a</p> <p><b>Patient type/# screened:</b> 1,200 randomly selected individuals divided in 2 groups: visitors and pts: 1) 609 pts with a non CD-related symptoms in 338; 2) visitor group 591 individuals with a non-CD associated symptoms found in 409 (69.2%)</p> <p><b>Demographics:</b> 1) pts group: age (y): median 48, range 16-91; 64.4% F; 2) visitors group: age (y): median 45, range 18-85; 61.1% F</p> <p><b>Incidence:</b></p>	<p>Prevalence of CD in primary care population was 1% (12/1200; 95% CI 0.4-1.3%); as for the prevalence of test positivity: 13.5% (162/1200) were antibody positives: 139 - IgG AGA positive, 10 - IgA AGA positive; 4 both IgA/IgG AGA positive, 3 - only EMA positive, 4 - EMA and IgG AGA positive; 2 all antibody positive; 23 pts were eligible for biopsy; out of 22 biopsies (1 pts refused) CD was confirmed in 12 pts</p>			<p>In the whole group of 1,200 screened individuals there were 3 subgroups of pts suffering from: 1) IDA - n=64 (5.3%); 2) IBS - n=123 (10.25%); and 3) fatigue - n=92 (7.7%); prevalence of CD in IDA group was 4.7% (3/64, 95% CI 0-9.8%); prevalence of CD in IBS group was 3.3% (4/123, 95% CI 0.1- 0.6%); prevalence of CD in the fatigue group was 3.3% (3/92, 95% CI 0-7%)</p>

**Evidence Table 4 (cont'd): Prevalence/incidence of CD in the general population**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Sjoberg, 1994 Sweden  Duplicate: no	<b>Publication type:</b> journal <b>Study design:</b> Cross-sectional prevalence <b>Test/methodology:</b> IgG AGA- ELISA, cut-off 330; IgA AGA- cut-off 8.5; (arbitrary cut-off values adopted based on normal samples) <b>Biopsy criteria/description:</b> Marsh; Watson Capsules <b>Confirmatory test:</b> biopsy <b>Checked IgA def.</b> n/a	<b>Ethnicity:</b> n/a <b>Patient type/# screened:</b> 1) 1,537 consecutive healthy blood donors; 2) 384 school children; 3) 944 women <b>Demographics:</b> 1) age (y): mean 38, range 19-70; 27.3% F; 2) 12 y; 51% F; 3) 57 y women only <b>Incidence:</b>	Prevalence of CD in blood donors was at least 1 in 1,500; as for test positivity: 22/1537 (1.43%) pts were positive for IgG and IgA AGA; 13 of these 22 pts were biopsied and 1 of 13 had biopsy confirmed CD	12 y old children- 15/384 (3.9%) were positive for IgG and/or IgA AGA	57 y old women- 11/944 (1.17%) were positive for IgG and/or IgA AGA;	No biopsy results for IgA IgG positive school children and middle aged women was reported

**Evidence Table 4 (cont'd): Prevalence/incidence of CD in the general population**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Sjoberg, 1999 Sweden  Duplicate: no	<p><b>Publication type:</b> journal</p> <p><b>Study design:</b> Cross-sectional prevalence</p> <p><b>Test/methodology:</b> IgA-AGA, ELISA values above 8.5 arbitrary units were considered positive; IgG-AGA, ELISA values above 330 arbitrary units were considered positive; EMA, IF ME</p> <p><b>Biopsy criteria/description:</b> subtotal and total VA considered diagnostic of CD. Infiltrative lesions, i.e., increased level of IELs were also considered as CD</p> <p><b>Confirmatory test:</b> small bowel biopsy</p> <p><b>Checked IgA def.</b> n/r</p>	<p><b>Ethnicity:</b> n/a</p> <p><b>Patient type/# screened:</b> 1,970 blood donors</p> <p><b>Demographics:</b> 685 women 1,285 men (adults) mean age: 41.2 y, range 18-70 y % F: 35</p> <p><b>Incidence:</b> Time period: between Oct. 1996-Feb.1997 (4 mos)</p>	<p>Positive results from 1970 pts IgG AGA- 60/1970 (3%) IgA AGA- 150/1970 (7.6%); both IgA and IgG- were 25/210 for a total of 185/1970 (9.4%) who had either IgA or IgG. Those 185 serum samples were analysed for EMA 3/185 positive 3 had small bowel Bx, 2 subtotal VA, 1- total VA. One had classic CD and 2 had infiltrative lesions and were on GFD with improvement. Thus prevalence rate for confirmed CD 4:1970 (0.20%) if infiltrative lesions regarded as CD prevalence 6:1970 (0.30%)</p>			

**Evidence Table 4 (cont'd): Prevalence/incidence of CD in the general population**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Treviso, 1999 Italy  Duplicate: no	<b>Publication type:</b> journal <b>Study design:</b> Cross-sectional prevalence <b>Test/methodology:</b> IgA-EMA; biopsy <b>Biopsy criteria/description:</b> subtotal or total VA <b>Confirmatory test:</b> ? <b>Checked IgA def.</b> n/r	<b>Ethnicity:</b> White Caucasians <b>Patient type/# screened:</b> healthy adult blood donors <b>Demographics:</b> n=4,000; mean age 35 y; range 18-60 <b>Incidence:</b>	By first serology: 10 By biopsy: 10			

**Evidence Table 4 (cont'd): Prevalence/incidence of CD in the general population**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence				Comments
			Group 1	Group 2	Group 3	Group 4	
Ventura, 2001 Italy  Duplicate: no	<p><b>Publication type:</b> journal</p> <p><b>Study design:</b> Cross-sectional prevalence</p> <p><b>Test/methodology:</b> IgA-EMA , indirect IF using HU</p> <p><b>Biopsy criteria/description:</b> ESPGAN a single specimen from the duodenal junction with a Watson capsule</p> <p><b>Confirmatory test:</b> intestinal biopsy</p> <p><b>Checked IgA def.</b> yes</p>	<p><b>Ethnicity:</b> n/a</p> <p><b>Patient type/# screened:</b> 19,791 children visiting family pediatrician over a 2 y period. Inclusion criteria "at risk": short stature; recurrent abdominal pain; IDA; enamel hypoplasia; recurrent aphthous stomatitis; autoimmune disease (such as IDDM, juvenile arthritis, autoimmune thyroiditis), occult hypertransaminasemia, IgA deficiency Down syndrome or CD in a first degree relative 240 met criteria; first-degree relatives of newly diagnosed CDs of this study (n=17?)</p> <p><b>Demographics:</b> 240 (103 male 43%) mean age 4.8 y</p> <p><b>Incidence:</b> Time period: Oct. 31, 1995- Oct. 31, 1997</p>	Overall at risk 18/240 were EMA positive and confirmed positive with intestinal biopsy (7.5%)	Stature growth defect 8:105 (7.6%)	Recurrent abdominal pain 3:45 (6.6%)	Sideropenic anemia 4:17 (23.5%)	
			<b>Group 5</b>	<b>Group 6</b>	<b>Group 7</b>	<b>Group 8</b>	Autoimmune disease 1:19 (5.2%)

**Evidence Table 4 (cont'd): Prevalence/incidence of CD in the general population**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Volta, 2001 Italy  Duplicate: no	<b>Publication type:</b> journal <b>Study design:</b> Cross-sectional prevalence <b>Test/methodology:</b> IgA-EMA-HU <b>Biopsy criteria/description:</b> Roy-Choudhry; Subtotal villous strophy <b>Confirmatory test:</b> ? <b>Checked IgA def.</b> n/r	<b>Ethnicity:</b> Northern Italians <b>Patient type/# screened:</b> 3,483 general population <b>Demographics:</b> n=3,483; 12-65 y, only 784 in 12-25 group <b>Incidence:</b>	By EMA: 0.57% (20/3483); by biopsy: 0.49% (17/3483)			Prevalence of 0.57% (20/3483) if included three pts with normal villous but with increased IELs

**Evidence Table 4 (cont'd): Prevalence/incidence of CD in the general population**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Weile, 2001 Denmark & Sweden  Duplicate: no	<b>Publication type:</b> journal <b>Study design:</b> Cross-sectional prevalence <b>Test/methodology:</b> serum IgA; IgG-AGA; IgA-AGA, cut-off >40 units; EMA; in cases of IgA <0.07g/L, IgG-AGA was analyzed <b>Biopsy criteria/description:</b> n/a <b>Confirmatory test:</b> biopsy in the Swedish sample only <b>Checked IgA def.</b> yes; prevalence in both population of blood donors was 0.3%	<b>Ethnicity:</b> n/a <b>Patient type/# screened:</b> blood donors <b>Demographics:</b> Denmark: n=1,573 adults mean age: 41.4 y, range >18 y % F 40.9 Sweden: n=1,866 adults mean age = 37.6 y, range >18 y % F: 31.7 <b>Incidence:</b>	Denmark: by IgA-AGA 4% (61/1573), by EMA 0.25% (4/1573)	Sweden: by IgA-AGA 3.2% (60/1866), by EMA 0.27% (5/1866); by biopsy 0.27% (5/1866)		

**Evidence Table 4 (cont'd): Prevalence/incidence of CD in the general population**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
West, 2003 UK  Duplicate: no	<p><b>Publication type:</b> Journal</p> <p><b>Study design:</b> Cross-sectional prevalence</p> <p><b>Test/methodology:</b> IgA EMA, indirect IF on commercial ME using 1:10 dilution; tTGA, ELISA &gt;3 U/mL considered positive</p> <p><b>Biopsy criteria/description:</b> no biopsy done</p> <p><b>Confirmatory test:</b> tTGA (no confirmatory test conducted i.e. biopsy)</p> <p><b>Checked IgA def.</b> yes</p>	<p><b>Ethnicity:</b> n/a</p> <p><b>Patient type/# screened:</b> 7,550 general practice unselected</p> <p><b>Demographics:</b> 7,527 adults aged 45-76 y not previously diagnosed with CD, mean age 59 y; 4,444 (59% F)</p> <p><b>Incidence:</b> Time interval: 1990-1995</p>	EMA positive 87/7527 (1.2%); EMA pos and abnormal tTGA 77/87 (89%)			In the whole group of 1,200 screened individuals there were 3 subgroups of pts suffering from: 1) IDA, n=64 (5.3%); 2) IBS, n=123 (10.25%); and 3) fatigue, n=92 (7.7%); prevalence of CD in IDA group was 4.7% (3/64, 95% CI 0-9.8); prevalence of CD in IBS group was 3.3% (4/123, 95% CI 0.1-0.6); prevalence of CD in the fatigue group was 3.3% (3/92, 95% CI 0-7)

## Prevalence of CD in Associated Clinical Conditions—Patients with Suspected CD

**Evidence Table 5: Prevalence of CD in patients with suspected CD**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Agardh, 2001 Sweden  Duplicate: yes, Celiac 1 (Carlsson et al., Pediatrics 1999;103:1248)	<b>Publication type:</b> journal <b>Study design:</b> retrospective cross-sectional prevalence <b>Test/methodology:</b> tTG; HLA DQB1; AGA $\geq$ 25 AU; EMA titres $\geq$ 1:5, biopsies <b>Biopsy criteria/description:</b> as described in Carlsson et al., 1999 (Pediatrics 103:1248) <b>Confirmatory test:</b> biopsy <b>Checked IgA def.</b> n/r	<b>Ethnicity:</b> n/a <b>Patient type/# screened:</b> Group 1: IDDM (three were known and treated CD cases) Group 2: generally healthy subjects <b>Demographics:</b> IDDM group: (n=165) with CD: median age 7 y, age range=1-13 y; 64% F Without CD: median age=10 y, age range 2-19 y, 44% F control group: (n=277) age range 11-16 y, 53% F <b>Incidence:</b> n/a	IDDM group: by AGA: 6.8% (11/162); by EMA: 4.9% (8/162); by biopsy: 3.7% (6/162); by IgA-tTG: 5.6% (9/162); by IgG-tTG: 6/162 (3.7%)	control group: by AGA: 8.7% (24/277); by EMA: 0% (0/277); by IgA-tTG: 0% (0/277); by IgG-tTG: 0% (0/277)		Type 1 diabetics having either DQB1*02 or DQB1*0302 had higher IgA-tTG levels than those not having these alleles (p=0.023)

**Evidence Table 5 (cont'd): Prevalence of CD in patients with suspected CD**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Annibale, 2003 Italy  Duplicate: no	<p><b>Publication type:</b> journal</p> <p><b>Study design:</b> prospective prevalence</p> <p><b>Test/methodology:</b> IgA-tTG, ELISA normal values were &lt; 7UA/mL</p> <p><b>Biopsy criteria/description:</b> Marsh</p> <p><b>Confirmatory test:</b> Biopsy, antral, gastric body, and duodenal biopsy collected</p> <p><b>Checked IgA def.</b> n/r</p>	<p><b>Ethnicity:</b> n/a</p> <p><b>Patient type/# screened:</b> IDA in premenopausal women</p> <p><b>Demographics:</b> n=59 premenopausal women; age range 22-54 y with IDA Hb&lt;12g/dLF</p> <p><b>Incidence:</b> Time period: March-July 2000</p>	7/59 (11.9%) had positive anti-tTG antibodies titre; biopsy-confirmed: 8.5% (5/59)			40/59 subjects tested positive for various tests including tTG for CD detection and progressed to have upper endoscopy with biopsy

**Evidence Table 5 (cont'd): Prevalence of CD in patients with suspected CD**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Bardella 1991 Italy  Duplicate: no	<b>Publication type:</b> journal <b>Study design:</b> prevalence <b>Test/methodology:</b> IgA-AGA <b>Biopsy criteria/description:</b> n/r <b>Confirmatory test:</b> <b>Checked IgA def.</b>	<b>Ethnicity:</b> n/r <b>Patient type/# screened:</b> suspected CD: iron-deficient, bowel disturbances, chronic intermittent diarrhea, severe malabsorption, tiredness and wt loss, mineral metabolism deficiencies, gluten- intolerance in childhood not further investigated <b>Demographics:</b> n=60; median age 28 (range 15-69); 41 F/19 M <b>Incidence:</b>	26			

**Evidence Table 5 (cont'd): Prevalence of CD in patients with suspected CD**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Bardella 2001 Italy	<p><b>Publication type:</b> journal</p> <p><b>Study design:</b> cross-sectional prevalence</p> <p><b>Test/methodology:</b> IgA-tTG &gt;10 AU/mL using GP liver; AGA &gt;12 AU/mL; indirect IF EMA titre&gt;1:10; biopsy</p> <p><b>Biopsy criteria/description:</b> n/a? didn't mentioned the biopsy results, not used for case diagnosis</p> <p><b>Confirmatory test:</b> none</p> <p><b>Checked IgA def.</b> yes, one found</p>	<p><b>Ethnicity:</b> n/a</p> <p><b>Patient type/# screened:</b> suspected CD, confirmed and treated CD pts (to be excluded), disease control group (to be excluded)</p> <p><b>Demographics:</b> n=80 suspected CD; adult; mean age 39 y; age range 17-79 y; 70% F</p> <p><b>Incidence:</b></p>	50% (40/80)			

**Evidence Table 5 (cont'd): Prevalence of CD in patients with suspected CD**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Bode 1993 Denmark  Duplicate: no	<b>Publication type:</b> journal <b>Study design:</b> cross-sectional prevalence <b>Test/methodology:</b> AGA, IgG, IgA <b>Biopsy criteria/description:</b> all biopsied <b>Confirmatory test:</b> all biopsied criteria not stated <b>Checked IgA def.</b> no	<b>Ethnicity:</b> n/r <b>Patient type/# screened:</b> suspected CD; all children <b>Demographics:</b> n=191; 74 F/117 M; median age: 2.75 y (range 0.33-15.5 y) <b>Incidence:</b>	14 cases (7.3%)			

**Evidence Table 5 (cont'd): Prevalence of CD in patients with suspected CD**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Carroccio, 2002 Italy  Duplicate: no	<p><b>Publication type:</b> journal</p> <p><b>Study design:</b> Cross-sectional prevalence</p> <p><b>Test/methodology:</b> serum EMA; serum anti-GP-tTG; serum anti-human-tTG</p> <p><b>Biopsy criteria/description:</b> ESPGAN? Three groups: normal, partial VA or subtotal/total VA; positive for CD if partial or total VA</p> <p><b>Confirmatory test:</b> biopsy</p> <p><b>Checked IgA def.</b> Yes, none found</p>	<p><b>Ethnicity:</b> n/a</p> <p><b>Patient type/# screened:</b> adult pts with suspected CD</p> <p><b>Demographics:</b> n=207; adult; median age 42 y; age range 17-84 y; 52.3% F</p> <p><b>Incidence:</b></p>	By GP-tTG: 18.8% (39/207); by h-tTG: 14.5% (30/207); by biopsy: 11.6% (24/207)			

**Evidence Table 5 (cont'd): Prevalence of CD in patients with suspected CD**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Chan, 2001 Canada  Duplicate: no	<p><b>Publication type:</b> journal</p> <p><b>Study design:</b> cross-sectional prevalence</p> <p><b>Test/methodology:</b> GP-tTG; EMA; biopsy</p> <p><b>Biopsy criteria/description:</b> Carey capsule, or 4-6 duodenal biopsies at time of endoscopy; no grade provided, a diagnosed case=increased number of IELs with associated subtotal or total VA</p> <p><b>Confirmatory test:</b> biopsy</p> <p><b>Checked IgA def.</b> Yes, two found</p>	<p><b>Ethnicity:</b> n/a</p> <p><b>Patient type/# screened:</b> 77 pediatric pts with suspected CD; 16 type I diabetes</p> <p><b>Demographics:</b> n=93; mean age: n/r; range 2 mos to 18 y; % F: n/r</p> <p><b>Incidence:</b></p>	GI group: 12% (9/77)	DM group: 75% (12/16)		

**Evidence Table 5 (cont'd): Prevalence of CD in patients with suspected CD**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Chartrand, 1997 Canada  Duplicate: no	<b>Publication type:</b> journal <b>Study design:</b> prevalence <b>Test/methodology:</b> biopsy <b>Biopsy criteria/description:</b> ESPGAN <b>Confirmatory test:</b> Checked IgA def.	<b>Ethnicity:</b> n/r <b>Patient type/# screened:</b> suspected CD; n=179 <b>Demographics:</b> all children; mean age 5.2 y, range 0.5-18.1 y <b>Incidence:</b>	30 (17%); mean age 3.7 y (range 0.6- 11.2); 17 F/13 M			

**Evidence Table 5 (cont'd): Prevalence of CD in patients with suspected CD**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Csizmadia 1999, Netherlands  Duplicate: no	<b>Publication type:</b> journal (research letter) <b>Study design:</b> cross-sectional Prevalence <b>Test/methodology:</b> IgA-EMA (methodology n/r) <b>Biopsy criteria/description:</b> n/r <b>Confirmatory test:</b> Small bowel biopsy, subset of 27 had HLA typing for DQ2 <b>Checked IgA def.</b> n/r	<b>Ethnicity:</b> n/r <b>Patient type/# screened:</b> 6,127 children between ages of 2-4 y general population <b>Demographics:</b> 6,127 pediatric pts between 2-4 y; gender:n/r <b>Incidence:</b> Time period: between May 1997-June, 1998	1.2% (75/6127) by IgA-EMA, 18/75 refused small bowel biopsy; 0.51% (31/75/6127) VA			26/27 with VA had the allele HLA-DQ2; prevalence 1:198 in children 2-4 y

**Evidence Table 5 (cont'd): Prevalence of CD in patients with suspected CD**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Day, 2000 New Zealand  Duplicate: no	<p><b>Publication type:</b> journal</p> <p><b>Study design:</b> cross-sectional prevalence</p> <p><b>Test/methodology:</b> IgA, IgG-AGA, EMA</p> <p><b>Biopsy criteria/description:</b> single pathologist, Marsh</p> <p><b>Confirmatory test:</b> biopsy on EMA pos</p> <p><b>Checked IgA def.</b> yes</p>	<p><b>Ethnicity:</b> n/r</p> <p><b>Patient type/# screened:</b> pediatric input or output; single center; suspected CD: failure to thrive, short stature, chronic GI symptoms; DM; histological findings of CD; 6 mos-15 y</p> <p><b>Demographics:</b> mean age: 63 mos (range 6 mos-15 y); % M: 58</p> <p><b>Incidence:</b></p>	27/36 EMA+; 5/11 biopsy confirmed			

**Evidence Table 5 (cont'd): Prevalence of CD in patients with suspected CD**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Fasano, 2003 USA  Duplicate: no	<b>Publication type:</b> journal <b>Study design:</b> cross-sectional prevalence <b>Test/methodology:</b> EMA-IF; ME or HU; positive at 1:10 ; all positive EMA tested with human tTG ELISA positive at 2 SD above mean of healthy controls; HLA DQ2 and DQ8 <b>Biopsy criteria/description:</b> single pathologist, Marsh <b>Confirmatory test:</b> htTG; biopsy; also small subset 98 EMA positive and 114 EMA neg had HLA DQ2/8 tested <b>Checked IgA def.</b> n/r	<b>Ethnicity:</b> 94% White; 3% Black; 1.5% Hispanic, 1% Asian, 0.5% other <b>Patient type/# screened:</b> 9,019 at risk of CD; 4,126 not at risk <b>Demographics:</b> at risk: symptoms of CD (1,326 children, 1,909 adults); CD associated disorders; 4,508 1st deg relatives; 1,275 2nd deg relatives; not at risk: 2,000 blood donors (mean age 39 y range 19-65 y); 1,119 school children (mean age 12.3 y, range 6-18 y); 1,007 adults and children for routine physical (mean age: 39 y, and 13.7 y; range: 19-71 y, and 2-18 y, respectively) <b>Incidence:</b>	1) At risk: a) 1st deg relatives-205/4,508 (4.55%); children-54/1,294 (4.17%); adults-151/3,214 (4.70%); b) symptomatic adults: 28/1,910 (1.47%); children: 53/1326 (4.00%) 2) Not at risk: 1/4,126 (0.75%); adults-27/2,845 (0.95%); children-4/1281(0.31%); biopsy in EMA+ Marsh I-0%; Marsh II-30/116 (25.9%); IIIa-46/116 (39.7%); IIIb-24/116 (20.7%); IIIc-16/116 (13.8%); HLA DQ2-76/98 (78%); DQ8-16/98 (16%); DQ2 and 8-6/98 (6%); all EMA pos were also tTG pos			

**Evidence Table 5 (cont'd): Prevalence of CD in patients with suspected CD**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Fitzpatrick 2001 Canada  Duplicate: no	<p><b>Publication type:</b> journal</p> <p><b>Study design:</b> cross-sectional prevalence; authors state that the study is a case-control (doubtful)</p> <p><b>Test/methodology:</b> IgA-EMA-IF using ME; positive when characteristic fluorescence pattern was produced</p> <p><b>Biopsy criteria/description:</b> not performed</p> <p><b>Confirmatory test:</b> None</p> <p><b>Checked IgA def.</b> n/r</p>	<p><b>Ethnicity:</b> n/r</p> <p><b>Patient type/# screened:</b> 92 pts with recurrent abdominal pain screened for EMA positivity; 81 healthy children also screened for EMA positivity</p> <p><b>Demographics:</b> 92 pts with recurrent abdominal pain; age: n/r; 62% F; 81 healthy controls; age: n/r; 42% F</p> <p><b>Incidence:</b></p>	The prevalence of IgA-EMA positivity in children with recurrent abdominal pain was 1 in 92 (1%, 95% CI 0-6)	The prevalence of IgA-EMA positivity in controls was 1 in 81 (1%, 95% CI 0-7)		

**Evidence Table 5 (cont'd): Prevalence of CD in patients with suspected CD**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Hill 2000 USA  Duplicate: no	<p><b>Publication type:</b> journal</p> <p><b>Study design:</b> cross-sectional prevalence</p> <p><b>Test/methodology:</b> IgA-EMA, IF on ME, methodology n/r; IgA and IgG-AGA, ELISA, methodology n/r</p> <p><b>Biopsy criteria/description:</b> Marsh</p> <p><b>Confirmatory test:</b> biopsy</p> <p><b>Checked IgA def.</b> yes</p>	<p><b>Ethnicity:</b> n/r</p> <p><b>Patient type/# screened:</b> 1,200 pediatric group of individuals at risk of CD; pts were assigned to one of 7 groups: 1) chronic diarrhea (n=182); 2) abdominal pain (n=316); 3) IDDM (n=81); 4) short stature (n=259); 5) failure to thrive (n=123); 6) miscellaneous (Down's syndrome, thyroiditis, anemia, unexplained elevation of liver enzymes) (n=47); 7) asymptomatic relatives (n=192)</p> <p><b>Demographics:</b> 1,200 pediatric group of individuals at risk of CD; age: mean n/r; range: 6 mos-20 y; % F n/r</p> <p><b>Incidence:</b></p>	Prevalence of CD in pts at risk was 1 in 57 (21/1200); prevalence of test positivity: 2.8% (34/1200) was both EMA and AGA positive; 26 of pts (19 EMA positive) underwent biopsy and 21 were diagnosed with CD			15 pts out of 34 EMA positives refused biopsy; thus prevalence of biopsy proven CD in pts at risk was at least 1 in 57; if considered above mentioned 15 pts, prevalence of CD could have been 1 in 33 (36/1200)

**Evidence Table 5 (cont'd): Prevalence of CD in patients with suspected CD**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Hin 1999 UK  Duplicate: no	<b>Publication type:</b> journal <b>Study design:</b> cross-sectional Prevalence <b>Test/methodology:</b> EMA (ME); biopsy of positives; IgA levels, IgG-AGA for IgA deficient <b>Biopsy criteria/description:</b> Crosby capsule, EGD distal duod in 2 cases <b>Confirmatory test:</b> biopsy; 100% positive; IEL: 1/30; mild VA: 1/30; partial VA: 1/30; subtotal VA: 14/30; total VA: 13/30 <b>Checked IgA def.</b> yes	<b>Ethnicity:</b> n/a <b>Patient type/# screened:</b> entry criteria: IBS, anemia, histological findings of CD, malabsorption symptoms, diarrhea, fatigue, thyroid disease, DM, wt loss, short stature, failure to thrive, epilepsy, infertility, arthralgia, eczema; 1,000 screened <b>Demographics:</b> n=271 M, mean age: 49.9 y (range 1-84); n=729 F, mean age: 45.2 y, range 6 mos-85 y); 5.3% <10 y, 3.1% aged 80-90 y; % F: 73 <b>Incidence:</b> # New cases: 30 pts (8 M:22 F) +ve EMA and +ve biopsy Time period: 30/1 y Control popn: 7 /preceding 1 y in absence of case finding	Prevalence of CD in pts at risk was 1 in 57 (21/1200); prevalence of test positivity: 2.8% (34/1200) was both EMA and AGA positive; 26 of pts (19 EMA positive) underwent biopsy and 21 were diagnosed with CD			126 cases tested for anemia: 21 positive

**Evidence Table 5 (cont'd): Prevalence of CD in patients with suspected CD**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Hoffenberg 2003 USA  Duplicate: no	<p><b>Publication type:</b> journal</p> <p><b>Study design:</b> prospective stratified cohort study</p> <p><b>Test/methodology:</b> IgA tTG</p> <p><b>Biopsy criteria/description:</b> Marsh score of 2 (enlarged crypts and increased numbers of intraepithelial lymphocytes) or 3 (any degree of VA) was considered evidence of CD</p> <p><b>Confirmatory test:</b> TG autoantibody seropositivity on two separate occasions at least 6 mos apart; biopsy</p> <p><b>Checked IgA def.</b> yes</p>	<p><b>Ethnicity:</b> non-Hispanic white 56%, Hispanic 30%, African-American 7%, Asian-American 2%, or biracial/other 5%</p> <p><b>Patient type/# screened:</b> 987 infants with high-risk genotypes: HLA DR3-3; DR3/4, DQB1*0302; DR4, DQ8 DR5/7 (since 2000)</p> <p><b>Demographics:</b> 987 infants (tested over 5 y span) gender n/r</p> <p><b>Incidence:</b> Time period: newborns between Dec 1993-Sept 1999</p>		40/987 tested positive for tTG; 19/40 met criteria for CD (10 with intestinal biopsy and 9 with persistent tTG autoantibody seropositivity)		By the age of 5 y, the adjusted risk estimate of the frequency of evidence of CD in general Denver population is 0.9%(95% CI, 0.4-2.0) or 1 in 104 (1:49 to 1:221).

**Evidence Table 5 (cont'd): Prevalence of CD in patients with suspected CD**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Hogberg, 2003 Sweden  Duplicate: no	<p><b>Publication type:</b> journal</p> <p><b>Study design:</b> longitudinal follow-up, incidence &amp; prevalence</p> <p><b>Test/methodology:</b> IgA-AGA, ELISA cut-off for a positive outcome 42.5 units; IgA-EMA, indirect IF using ME, antibody titre defined as the highest serum dilution yielding positive fluorescence; IgA-TGA, commercially available ELISA, highest cut-off value for positive results &gt;30 units.</p> <p><b>Biopsy criteria/description:</b> revised ESPGAN. Grade 1 normal; Grade 2 mild; Grade 3 moderate, Grade 4 total VA</p> <p><b>Confirmatory test:</b> Small bowel biopsy</p> <p><b>Checked IgA def.</b> yes, 5 cases found</p>	<p><b>Ethnicity:</b> n/a</p> <p><b>Patient type/# screened:</b> 120 first degree relatives of CD pts</p> <p><b>Demographics:</b> n=56 parents (adults), mean age 53.6 y, range 43-78 y; n=44 siblings (ped and adult), mean age 27.4 y, range 15-49 y; n=20 offspring, mean age 6.5 y, range 1-16 y; gender n/r</p> <p><b>Incidence:</b> Time period: 20 y follow-up study. Original study period Sept 1975-Feb 1981</p>	10/120 (8.3%) prevalence, 2 were diagnosed in the original study 20 y prior, 8 new cases from the present follow-up study group. (biopsy confirmed); serum results: IgA- AGA 8/120 pos; IgA- EMA 0.5% (6/120) pos; IgA-TGA 3.8% (4/104) pos (3 pts with positive biopsy were not tested for IgA TGA)			IgA deficient pt, IgG antibodies positive. Biopsy findings were in serologically positive relatives IgA-TGA was performed in sera of n=104 when access to assay became available 1 yr later.

**Evidence Table 5 (cont'd): Prevalence of CD in patients with suspected CD**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Pittschieler, 2003 Italy  Duplicate: no	<p><b>Publication type:</b> journal</p> <p><b>Study design:</b> prospective prevalence</p> <p><b>Test/methodology:</b> EMA, HUC examined by fluorescence. Absence of binding was considered a negative test; HLA typing was done exclusively once diagnosis of CD was confirmed (micro-lymphocytotoxic technique)</p> <p><b>Biopsy criteria/description:</b> Small intestinal biopsy of first jejunal loop. Ferraris Watson capsule. Normal values being &lt;3.2 cells/mm <math>\gamma/\delta</math> T-cell receptors by immuno-histology</p> <p><b>Confirmatory test:</b> biopsy, HLA typing</p> <p><b>Checked IgA def.</b> yes, none found</p>	<p><b>Ethnicity:</b> n/a</p> <p><b>Patient type/# screened:</b> 92 first-degree relatives of CD pts. Yearly testing over 12 y period</p> <p><b>Demographics:</b> n=92 at risk (first-degree relatives; 18 offspring and 74 siblings); aged 2-18 y</p> <p><b>Incidence:</b> Time period: 12 y time period Jan 1990-Dec 2001</p>	6.5% (6/92) confirmed CD by both serology & biopsy within a few months of CD diagnosis in one of their relatives. 5 total VA and 1 partial VA; over 2-5 y a further 5.8% (5/86) confirmed positive with both HUC EMA-IgA and biopsy 1 partial VA and 4 total VA; combined prevalence=12% (11/92); 11/11 were carriers of HLA DQ2/ heterodimers			all 11 were clinically silent for CD

**Evidence Table 5 (cont'd): Prevalence of CD in patients with suspected CD**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Thomas, 1992 England  Duplicate: no	<p><b>Publication type:</b> journal</p> <p><b>Study design:</b> cross-sectional prevalence</p> <p><b>Test/methodology:</b> biopsy</p> <p><b>Biopsy criteria/description:</b> normal histology; mild enteropathy; moderate enteropathy; severe enteropathy; response to GFD</p> <p><b>Confirmatory test:</b> n/r</p> <p><b>Checked IgA def.</b> yes</p>	<p><b>Ethnicity:</b> n/r</p> <p><b>Patient type/# screened:</b> pediatric pts presenting with chronic diarrhea</p> <p><b>Demographics:</b> n=381; 64% &lt;2 y; 20% 2-5 y; 16% 5-15 y; % F: 41.5</p> <p><b>Incidence:</b></p>	2/97 mild enteropathy; 1/38 moderate enteropathy; 27/34 severe enteropathy=7.9%			

**Evidence Table 5 (cont'd): Prevalence of CD in patients with suspected CD**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Tursi, 2003 Italy  Duplicate: no	<p><b>Publication type:</b> journal</p> <p><b>Study design:</b> prevalence</p> <p><b>Test/methodology:</b> IgA IgG, ELISA lower limit of positivity of IgA 0.2 EU/mL and IgG 10.0 EU/mL; IgA-EMA, indirect IF on ME; IgA-tTG, ELISA using GP liver substrate, lower limit of positivity was 7 UA/mL</p> <p><b>Biopsy criteria/description:</b> Marsh criteria 6 biopsies from small bowel from the second part of duodenum. Marsh Type I -'infiltrative' lesions with &gt;30 lymphocytes/100 epithelial cells; Type II- 'infiltrative/hyperplastic' lesions; Type III- 'partial (sub)total VA; partial VA Marsh IIIa); subtotal VA Marsh IIIb); and total VA as Marsh IIIc)</p> <p><b>Confirmatory test:</b> Biopsy</p> <p><b>Checked IgA def.</b> yes</p>	<p><b>Ethnicity:</b> n/r</p> <p><b>Patient type/# screened:</b> 111 first-degree relatives of pts with CD</p> <p><b>Demographics:</b> at risk n=111 first-degree relatives: mean age 28.7 y, range (10-65 y); 38 M, 73 F</p> <p><b>Incidence:</b> n/r</p>	CD diagnosed in 49/11 screened relatives (44.14%) prevalence; Prevalence AGA 36.73%; EMA 38.78% ; anti-tTG 44.89%			Prevalence of antibodies was higher in severe histological lesions (Marsh IIIb-c) than in not so severe lesions (Marsh I-IIIa). Note: prevalence of AGA was higher than that of EMA/anti-tTG in less severe histological lesions

**Evidence Table 5 (cont'd): Prevalence of CD in patients with suspected CD**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
van Mook, 2001 Netherlands  Duplicate: no	<p><b>Publication type:</b> journal</p> <p><b>Study design:</b> retrospective prevalence</p> <p><b>Test/methodology:</b> EGD; upper digestive tract endoscopy in 10/35; duodenal biopsies taken in 15/35</p> <p><b>Biopsy criteria/description:</b> Marsh</p> <p><b>Confirmatory test:</b> biopsy</p> <p><b>Checked IgA def.</b> no</p>	<p><b>Ethnicity:</b> n/r</p> <p><b>Patient type/# screened:</b> 35 pts with IDA, anaemia defined as Hb &lt;8.0 mmol/L in men or &lt; 7.4 mmol/L in women. Iron deficiency defined as a serum ferritin level ≤20 µg/L for men or ≤10 µg/L in women; or serum iron concentration ≤45 µg/dL with a transferrin saturation of 10% or less, or the absence of iron stores in bone marrow biopsy specimens.</p> <p><b>Demographics:</b> n=35 pts: median age 71 y, range 22-89 y; 22 F (63%) and 13 M (37%),</p> <p><b>Incidence:</b> n/r</p>	2.9% (1/35) Marsh IIIc on both biopsy and endoscopy			

**Evidence Table 5 (cont'd): Prevalence of CD in patients with suspected CD**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Ventura, 2001 Italy  Duplicate: no	<b>Publication type:</b> journal <b>Study design:</b> cross-sectional Prevalence <b>Test/methodology:</b> IgA EMA, indirect IF using HUC <b>Biopsy criteria/description:</b> ESPGAN a single specimen from the duodenal junction with a Watson capsule <b>Confirmatory test:</b> intestinal biopsy <b>Checked IgA def.</b> yes	<b>Ethnicity:</b> n/r <b>Patient type/# screened:</b> 19,791 children visiting family pediatrician over a 2 y period. Inclusion criteria "at risk": short stature; recurrent abdominal pain; IDA; enamel hypoplasia; recurrent aphthous stomatitis; autoimmune disease (such as IDDM, juvenile arthritis, autoimmune thyroiditis), occult hypertransaminasemia, IgA deficiency Down's syndrome or CD in a first degree relative; 240 met criteria; first-degree relatives of newly diagnosed CDs of this study (n=17?) <b>Demographics:</b> n=240: mean age 4.8 y; 103 M (43%) <b>Incidence:</b> Time period: Oct. 31, 1995- Oct. 31, 1997	Overall at risk 18/240 were EMA positive and confirmed positive with intestinal biopsy (7.5%);	Stature growth defect 8/105 (7.6%)	Recurrent abdominal pain 3/45 (6.6%)	
			<b>Group 4</b>	<b>Group 5</b>	<b>Group 6</b>	
			Sideropenic anemia 4/17 (23.5%)	Autoimmune disease 1/19 (5.2%)	Down syndrome 1/11 (9.0%)	
			<b>Group 7</b>			
			CD first degree relative 1/14 (7.1%)			

## Prevalence of CD in High-Risk Patients—Type I Diabetes

Evidence Table 6: Prevalence/incidence of CD in patients with diabetes

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
<p>Agardh, 2001 Sweden</p> <p>Duplicate: yes, Celiac 1 – Carlsson et al., Pediatrics 1999;103:1248</p>	<p><b>Publication type:</b> journal</p> <p><b>Study design:</b> retrospective cross-sectional prevalence</p> <p><b>Test/methodology:</b> tTG; HLA-DQB1; AGA<sub>≥</sub>25 AU; EMA titres<sub>≥</sub> 1:5, biopsies</p> <p><b>Biopsy criteria/description:</b> as described in Carlsson et al., 1999 Pediatrics 103:1248</p> <p><b>Confirmatory test:</b> biopsy</p> <p><b>Checked IgA def.</b> n/r</p>	<p><b>Ethnicity:</b> n/a</p> <p><b>Patient type/# screened:</b> 1. IDDM (3 were known and treated CD cases); 2. generally healthy subjects</p> <p><b>Demographics:</b> ped; 1. IDDM group (n=165)- with CD: median age 7 y, age range 1-13 y, 64% F; without CD: median age 10 y, age range 2-19 y, 44% F. 2. control group (n=277)- age range 11-16 y, 53% F</p> <p><b>Incidence:</b></p>	<p>IDDM group: by AGA: 6.8% (11/162); by EMA: 4.9% (8/162); by biopsy: 3.7% (6/162); by IgA-tTG: 5.6% (9/162); by IgG-tTG: 6/162 (3.7%)</p>	<p>Control group: by AGA: 8.7% (24/277); by EMA: 0% (0/277); by IgA-tTG: 0% (0/277); by IgG-tTG: 0% (0/277)</p>		<p>Type 1 diabetics having either DQB1*02 or DQB1*0302 had higher IgA-tTG levels than those not having these alleles (p=0.023)</p>

**Evidence Table 6 (cont'd): Prevalence/incidence of CD in patients with diabetes**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Arato, 2002 Hungary  Duplicate: no	<p><b>Publication type:</b> journal</p> <p><b>Study design:</b> cross-sectional prevalence</p> <p><b>Test/methodology:</b> EMA, indirect IF; serum IgA measured to avoid false-negative IgA-EMA tests in cases of IgA deficiency (serum IgA&lt;0.2g/L); jejunal biopsy using Crosby capsule for EMA positives; intraepithelial gamma/delta T-cells elevated if &gt;7 cells/mm (95% CI)</p> <p><b>Biopsy criteria/description:</b> other: not described</p> <p><b>Confirmatory test:</b> jejunal biopsy</p> <p><b>Checked IgA def.</b> yes; none found</p>	<p><b>Ethnicity:</b> n/a</p> <p><b>Patient type/# screened:</b> type I diabetes</p> <p><b>Demographics:</b> n=205; randomly selected ped pts with IDDM; mean age 11.6 y; age range 2.0-17.0 y; 42.9% F</p> <p><b>Incidence:</b> n/a</p>	By EMA: 11.7% (24/205); by biopsy: 8.3% (17/205)			Randomly selected subject pool, considered more representative of the population than in the other studies. No significant difference among EMA positive children with or without jejunal VA

**Evidence Table 6 (cont'd): Prevalence/incidence of CD in patients with diabetes**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Bao, 1999 USA  Duplicate: no	<b>Publication type:</b> journal <b>Study design:</b> cross-sectional prevalence <b>Test/methodology:</b> tTG (ELISA) >0.05=positive; IgA-EMA using indirect IF; HLA genotype DQ B1 typing of peripheral WBCs with PCR amplification and hybridization; DQ alpha-typing performed with ampliType; DQ2, DQ8 <b>Biopsy criteria/description:</b> Other: not described <b>Confirmatory test:</b> *consent to biopsies in only 20 of the 98 tTG positives <b>Checked IgA def.</b> no, not mentioned	<b>Ethnicity:</b> n/a <b>Patient type/# screened:</b> type I diabetes <b>Demographics:</b> n=847; children and adult; mean age 14.5 y; range 0.7-77.7 y; % F? <b>Incidence:</b> n/a	By tTG only: 11.6% (98/847); by tTG & EMA: 5.8% (49/847); by biopsy: 1.8% (15/20/98/847)			Levels of tTG IgA and IgA-EMA were correlated: r=0.44, p=0.002. Prevalence of tTG was higher in diabetics with HLA DQ2 or DQ8.

**Evidence Table 6 (cont'd): Prevalence/incidence of CD in patients with diabetes**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Barera, 1991 Italy  Duplicate: no	<b>Publication type:</b> journal <b>Study design:</b> <b>Test/methodology:</b> AGA IgA then if negative, IgG AGA <b>Biopsy criteria/description:</b> subtotal VA <b>Confirmatory test:</b> none <b>Checked IgA def.</b>	<b>Ethnicity:</b> n/a <b>Patient type/# screened:</b> type I diabetes <b>Demographics:</b> n=498; children <b>Incidence:</b> n/a	By first AGA-IgA: 30 Biopsy proven: 16			Levels of tTG IgA and IgA-EMA were correlated: r=0.44, p=0.002. Prevalence of tTG was higher in diabetics with HLA DQ2 or DQ8.

**Evidence Table 6 (cont'd): Prevalence/incidence of CD in patients with diabetes**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Barera, 2002 Italy  Duplicate: no	<p><b>Publication type:</b> journal</p> <p><b>Study design:</b> prospective cohort; 6 years follow-up [did not give incidence measures, only prevalence]</p> <p><b>Test/methodology:</b> EMA, indirect IF; serum IgA &lt;0.05 g/L in the presence of normal IgG and IgM were regarded as selective IgA deficiency; duodenojejunal biopsy in &gt;8 y children with positive EMA; upper endoscopy for younger children, mucosal histology</p> <p><b>Biopsy criteria/description:</b> Marsh; three types of lesions: 1. Infiltrative lesion normal mucosa, 2. Hyperplastic lesion with enlarged crypts infiltrated by IELs, 3. Some degree of VA with inflammation and hyperplastic crypts; diagnosis considered positive with demonstration of type 2 or 3 lesion</p> <p><b>Confirmatory test:</b> biopsy</p> <p><b>Checked IgA def.</b> yes, 2 selective IgA deficiency</p>	<p><b>Ethnicity:</b> n/a</p> <p><b>Patient type/# screened:</b> type I diabetes</p> <p><b>Demographics:</b> n=273; children; mean age 8.28 y, age range 0.6-18.7 y; 42.5% F</p> <p><b>Incidence:</b> n/a</p>	By 1 EMA only: 5.5% (15/273); after second EMA: 3.7% (10/273); by biopsy: 3.3% (9/10/273); if add the 1 excluded case (because diagnosed CD before developed IDDM): 3.6% (10/274)			Levels of tTG IgA and IgA-EMA were correlated: r=0.44, p=0.002. Prevalence of tTG was higher in diabetics with HLA DQ2 or DQ8.

**Evidence Table 6 (cont'd): Prevalence/incidence of CD in patients with diabetes**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Calero, 1996 Spain  Duplicate: no	<b>Publication type:</b> journal <b>Study design:</b> <b>Test/methodology:</b> IgA-AGA if positive on two occasions <b>Biopsy criteria/description:</b> subtotal VA <b>Confirmatory test:</b> none <b>Checked IgA def.</b>	<b>Ethnicity:</b> n/a <b>Patient type/# screened:</b> type I diabetes <b>Demographics:</b> n=141; children <b>Incidence:</b> n/a	By first AGA-IgA: 12 Biopsy proven: 4			

**Evidence Table 6 (cont'd): Prevalence/incidence of CD in patients with diabetes**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Cronin, 1997 Ireland  Duplicate: no	<b>Publication type:</b> journal <b>Study design:</b> cross-sectional prevalence <b>Test/methodology:</b> EMA; biopsy <b>Biopsy criteria/description:</b> other: not mentioned <b>Confirmatory test:</b> biopsy <b>Checked IgA def.</b> no, not mentioned	<b>Ethnicity:</b> n/a <b>Patient type/# screened:</b> IDDM pts <b>Demographics:</b> n=101 diabetic pts and n=51 controls; adolescent and adult; age range for diabetic pt 15-59 y. Other info n/a <b>Incidence:</b> n/a	By EMA: 7.9% (8/101) By biopsy: 5.0% (5/101)			

**Evidence Table 6 (cont'd): Prevalence/incidence of CD in patients with diabetes**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
De Block, 2001 Belgium  Duplicate: no	<p><b>Publication type:</b> journal</p> <p><b>Study design:</b> Cross-sectional Prevalence]</p> <p><b>Test/methodology:</b> islet cell antibodies (ICA) - IF, cut-off level was &gt;12 JDF; antibodies to glutamic acid decarboxylase-65 (GADA) - radiobinding assay, cut-off level was &gt;2.6% tracer bound GADA; tyrosine phosphate antibodies (IA2A) - radiobinding assay, cut-off level was &gt;0.5% tracer bound IA2A; thyroid peroxidase antibodies (aTPO) - radiobinding assay, cut-off was &gt;100 U/mL; parietal cell antibodies (PCA) - IF, positivity at &gt;1:20 dilution; antibodies to intrinsic factor (AIF) - radiobinding assay; anti-adrenal antibodies (AAA) - IF; anti-EMA - IF on a ME, positivity at &gt;1:10 dilution; HLA DQ</p> <p><b>Biopsy criteria/description:</b> no biopsy performed</p> <p><b>Confirmatory test:</b> none</p> <p><b>Checked IgA def.</b> n/r</p>	<p><b>Ethnicity:</b> all Caucasians</p> <p><b>Patient type/# screened:</b> 399 pts with IDDM screened for different autoimmune diseases (176 children &lt;18 y; 223 adults)</p> <p><b>Demographics:</b> 399 pts with IDDM screened for different autoimmune diseases; age (y): mean 26±16, range n/r; 53% F</p> <p><b>Incidence:</b> n/a</p>	Prevalence of CD in 399 pts with IDDM was 0.75% (3/399); prevalence of test positivity: 1) ICA - 39% (157/399); GADA - 70% (278/399); IA2A - 44% (177/399); aTPO - 22% (87/399); PCA - 18% (73/399); AAA - 1% (5/399); IgA EMA - 2% (9/399)			IgA-EMA was detected in 2.3% of IDDM pts particularly in HLA-DQA1*0501-DQB1*0201 subjects

**Evidence Table 6 (cont'd): Prevalence/incidence of CD in patients with diabetes**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
De Vitis, 1996 Italy  Duplicate: no	<b>Publication type:</b> journal <b>Study design:</b> <b>Test/methodology:</b> IgA, IgG then IgA EMA <b>Biopsy criteria/description:</b> Marsh VA <b>Confirmatory test:</b> biopsy <b>Checked IgA def.</b>	<b>Ethnicity:</b> n/a <b>Patient type/# screened:</b> type I diabetes <b>Demographics:</b> n=1,114; children & adults <b>Incidence:</b> n/a	By first IgA: 121 Biopsy proven: 63			78/121 biopsied

**Evidence Table 6 (cont'd): Prevalence/incidence of CD in patients with diabetes**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Fasano, 2003 USA Duplicate: no	<b>Publication type:</b> journal <b>Study design:</b> Cross-sectional prevalence <b>Test/methodology:</b> EMA, IF ME or HU; positive at 1:10 ; all positive EMA tested with human tTG ELISA positive at 2 SD above mean of healthy contols; HLA DQ2 and DQ8 <b>Biopsy criteria/description:</b> single pathologist, Marsh <b>Confirmatory test:</b> htTG; biopsy; also small subset 98 EMA-positive and 114 EMA-neg had HLA DQ2/8 tested <b>Checked IgA def.</b> n/r	<b>Ethnicity:</b> 94% White; 3% Black; 1.5% Hispanic, 1% Asian, 0.5% other <b>Patient type/# screened:</b> 9,019 at risk of CD; 4,126 not at risk <b>Demographics:</b> at risk: symptoms of CD (1,326 children, 1,909 adults); CD-associated disorders; 4,508 1st deg relatives; 1,275 2nd deg relatives; not at risk: 2,000 blood donors (mean age 39 y range 19-65 y); 1,119 school children (mean age 12.3 y, range 6-18 y); 1,007 adults and children for routine physical (mean age 39 y, and 13.7 y, range, 19-71 y, and 2-18 y) <b>Incidence:</b>	1) At risk - a) 1st deg relatives - 205/4,508 (4.55%); children - 54/1,294 (4.17%); adults - 151/3,214 (4.70%); b) symptomatic adults - 28/1,910 (1.47%); children - 53/1,326 (4.00%); 2) Not at risk - 1/4126 (0.75%); adults - 27/2,845 (0.95%); children - 4/1281(0.31%); biopsy in EMA pos - Marsh 1- 0%; 2 - 30/116 (25.9%); 3a - 46/116 (39.7%); 3b - 24/116 (20.7%); 3c - 16/116 (13.8%); HLA DQ2-76/98 (78%); DQ8 - 16/98 (16%); DQ2 and 8 - 6/98 (6%); all EMA pos were also tTG pos			

**Evidence Table 6 (cont'd): Prevalence/incidence of CD in patients with diabetes**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Frazer-Reynolds, 1998 Canada  Duplicate: no	<b>Publication type:</b> journal <b>Study design:</b> Cross-sectional prevalence <b>Test/methodology:</b> IgA EMA - IF using ME, positive if staining at a dilution of 1:10; total serum IgA, measured using rate nephelometry <b>Biopsy criteria/description:</b> Carey capsule; Marsh criteria <b>Confirmatory test:</b> biopsy <b>Checked IgA def.</b> yes; none of IDDM pts had IgA deficiency; 3 pts in suspected malabsorption group were found to have IgA deficiency	<b>Ethnicity:</b> 94% white; 3% Black; 1.5% Hispanic, 1% Asian, 0.5% other <b>Patient type/# screened:</b> 236 pts with IDDM screened for CD; 56 pts who underwent intestinal biopsy for suspected malabsorption <b>Demographics:</b> 236 pts with IDDM; age (y): mean n/r, range 1-18; 50% F; 56 pts with GI complaints; age (y): mean n/r, range n/r; 43% F <b>Incidence:</b>	Estimated prevalence of CD in 236 pts with IDDM was 5.1% (12/236; 95% CI 2.7-8.8); as for test positivity: none were IgA deficient; 19 pts were IgA EMA positive; 2 refused biopsy; of 17 pts with IgA EMA, 12 had CD on biopsy	Estimated prevalence of CD in 56 pts with suspected malabsorption was 9% (5/56); as for test positivity: 3 pts were EMA positive and all had biopsy proven CD; 3 pts were IgA deficient and EMA negative and 1 of them was found to have CD on biopsy; 1 of 50 IgA-sufficient and EMA negative pts had biopsy proven CD		Sensitivity and specificity of IgA EMA for the detection of CD in all 73 biopsied pts (both IDDM and GI pts) were 88.2% (15/17; 95% CI 63.6-98.5), respectively; when the 3 IgA deficient pts were excluded, sensitivity increased to 93.7% (15/16; 95% CI 69.8-99.8) and specificity remained unchanged (49/54, or 90.7%; 95% CI 79.7-96.9)

**Evidence Table 6 (cont'd): Prevalence/incidence of CD in patients with diabetes**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
<p>Gillett, 2001 Canada</p> <p>Duplicate: no</p>	<p><b>Publication type:</b> journal</p> <p><b>Study design:</b> Cross-sectional prevalence</p> <p><b>Test/methodology:</b> IgA EMA, IF on HU, starting dilution 1:5; positive sample were tested at increased dilutions until fluorescence disappeared; IgA tTG, ELISA; reference range of 140 AU/mL or less was calculated to include 3 SD above the mean (99% confidence limit)</p> <p><b>Biopsy criteria/description:</b> endoscopic biopsy; ESPGAN criteria; 4 biopsy specimens from distal duodenum; elevated IEL count was defined as more than 40 IELs per 100 enterocytes</p> <p><b>Confirmatory test:</b> biopsy</p> <p><b>Checked IgA def.</b> yes; using Nor-Partigen Total IgA Kit; 1 pt was found to be IgA-deficient</p>	<p><b>Ethnicity:</b> 209 White, 12 East Indian, 7 Asian, 4 First Nation, 1 African</p> <p><b>Patient type/# screened:</b> 233 pts with IDDM screened for CD</p> <p><b>Demographics:</b> 233 pts with IDDM screened for CD; age (y): median 12.9, range 1.3-19.2; 46% F</p> <p><b>Incidence:</b></p>	<p>Prevalence of CD in IDDM pts was 7.7% (18/233); prevalence of test positivity: 8.2% (19/233) was both EMA and AGA positive and all were white; 18 of these 19 pts underwent biopsy (1 was previously diagnosed with CD and was not offered biopsy); CD was confirmed in 14 of these 18 pts</p>			

**Evidence Table 6 (cont'd): Prevalence/incidence of CD in patients with diabetes**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Hansen, 2001 Denmark  Duplicate: no	<p><b>Publication type:</b> journal</p> <p><b>Study design:</b> Cross-sectional prevalence</p> <p><b>Test/methodology:</b> IgA AGA - ELISA, cut-off n/r; IgA EMA - IF on a ME; IgA tTG - ELISA; thyroid antibodies: thyroid peroxidase (TPO) and thyroglobulin (TG), using radioimmunoassay</p> <p><b>Biopsy criteria/description:</b> endoscopic biopsy; CD was diagnosed when mucosa showed partial or total VA, crypt hyperplasia and IEL infiltration</p> <p><b>Confirmatory test:</b> endoscopic biopsy</p> <p><b>Checked IgA def.</b> yes; none was IgA deficient</p>	<p><b>Ethnicity:</b> n/a</p> <p><b>Patient type/# screened:</b> 106 pts with IDDM screened for CD; 106 aged-, and sex-matched healthy controls</p> <p><b>Demographics:</b> 106 pts with IDDM screened for CD; 2 had been previously diagnosed with CD; age (y): median 12.8, range 2.3-18.2; 47% F; median duration of IDDM 4.8 y, range 0.2-13.3 y; 1 pt had a second-degree relative with CD; 106 aged-, and sex-matched healthy controls; age (y): median 12.9, range 1.3-18.3; 47% F; none had relatives with CD</p> <p><b>Incidence:</b></p>	Screening revealed 9 biopsy proven CD in the 104 pts with IDDM, giving a prevalence of CD 10.4% (95% CI 4.6-16.2%), (11/106 - 2 pts had CD prior to screening); as for test positivity: of 104 tested pts 7 had IgA AGA, 19 - IgG AGA, and 10 - IgA EMA+ IgA tTG; 9 out of 10 EMA+tTG positive pts underwent biopsy (1 refused) and were found all of them to have CD	Control: none had been diagnosed with CD; as for test positivity: 1 had IgA AGA, 9 - IgG AGA, none - EMA or tTG		Screening revealed IDDM pts with CD were significantly younger than the group of IDDM without CD (p=0.017); IDDM+CD group also had an earlier onset of diabetes: median 3.2 y (range 0.7-9.3 y), compared with 7.4 y (range 1.3-16.6 y) in pts without CD (p=0.005); in pts with IDDM+CD the height standard deviation score (SDS) was significantly lower compared with diabetics without CD (p=0.019); no statistically significant difference with regards of weight SDS and body mass index SDS; thyroid antibodies were significantly more frequent in IDDM+CD (36% - 4/12), whereas 12/94 (13%) of IDDM without CD and 2/106 (2%) of controls had detectable thyroid antibodies (p=0.04)

**Evidence Table 6 (cont'd): Prevalence/incidence of CD in patients with diabetes**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
<p>Jager, 2001 Germany</p> <p>Duplicate: no</p>	<p><b>Publication type:</b> journal</p> <p><b>Study design:</b> Cross-sectional prevalence</p> <p><b>Test/methodology:</b> DDM-associated antibodies: islet cell antibodies (ICA) - detected by IF, insulin autoantibodies (IAA) - radioimmunoassay, anti-IA-2 antibodies, and anti-GAD65 antibodies (anti-GADA) - both radioligand binding; thyroid disease-associated antibodies: anti-TPO and anti-TG - both ELISA; pernicious anemia-associated antibodies: anti-gastric parietal cell antibodies (anti-GPC) - IF; adrenalitis-associated antibodies: anti-adrenal cortex antibodies - IF; CD-associated antibodies: IgA AGA, IgG AGA, IgA-tTG - all ELISA</p> <p><b>Biopsy criteria/description:</b> n/r</p> <p><b>Confirmatory test:</b> none</p> <p><b>Checked IgA def.</b> n/r</p>	<p><b>Ethnicity:</b> n/a</p> <p><b>Patient type/# screened:</b> 197 pts with a new onset of IDDM diagnosed according to WHO criteria; 882 first-degree relatives; 150 healthy controls without a family history of IDDM;</p> <p><b>Demographics:</b> 197 pts with IDDM (age (y): median 16, range 5-27, 43% F); 882 first-degree relatives - 485 were parents (age (y): median 43, range 22-59), 382 siblings and 15 offsprings of IDDM pts (age (y): median 16, range 2-41)</p> <p><b>Incidence:</b></p>	<p>Recent-onset IDDM (n=197): IgG AGA - 10.2%; IgA AGA - 7.6%; anti-tTG IgA - 9.7%; at least 1 antibody positive - 16.8%</p>	<p>First-degree relatives (n=882): IgG AGA - 5.6%; IgA AGA - 2.6%; anti-tTG IgA - 3.2%; at least 1 antibody positive- 7.3%</p>	<p>Healthy control subjects (n=150): IgG AGA - 3.2%; IgA AGA - 2.0%; anti-tTG IgA - 2.6%; at least 1 antibody positive- 4.6%</p>	

**Evidence Table 6 (cont'd): Prevalence/incidence of CD in patients with diabetes**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Kaukinen, 1999 Finland  Duplicate: no	<p><b>Publication type:</b> journal</p> <p><b>Study design:</b> Cross-sectional prevalence</p> <p><b>Test/methodology:</b> IgA EMA - IF, screening dilution of 1:5 was considered as a positive; IgA and IgG AGA - ELISA, for IgA AGA lower limit of positivity was 0.2 EU/mL and for IgG AGA - 10.0 EU/mL</p> <p><b>Biopsy criteria/description:</b> endoscopic biopsy; ESPGAN criteria; 7 forceps biopsy specimens; histological classification as 1) normal; 2) mild partial VA; 3) severe partial VA; 4) subtotal VA; 3 and 4 were considered as CD</p> <p><b>Confirmatory test:</b> endoscopical biopsy; performed in 6 (10%) previously diagnosed CD and in 28 pts without the diagnosis of CD; (23 refused biopsy, 3 - lost to follow-up, 2 - died); HLA DR and HLA DQ alleles in a dilution of 1:1500 using PCR/RFLP method</p> <p><b>Checked IgA def.</b> n/r</p>	<p><b>Ethnicity:</b> n/a</p> <p><b>Patient type/# screened:</b> 62 adult pts with more than one autoimmune endocrinologic disorder</p> <p><b>Demographics:</b> 67% F); ATD+addison's disease - 4 (age (y): median 52, range 34-53; 50% F); APECED - 4 (age (y): median 26, range 17-51; 25% F); IDDM+alopecia areata - 3 (age (y): median 20, range 17-30; 67% F); ATD+alopecia areata - 3 (age (y): median 48, range 33-57; 100% F); ATD+addison's disease+alopecia areata - 1 (age (y): median 42; 0% F); IDDM+addison's disease - 1 (age (y): median 32; 100% F)</p> <p><b>Incidence:</b></p>	In total 7 (11%) out of 62 pts were diagnosed to have biopsy-proved CD; 6 (10%) were previously diagnosed with CD, and 1 (3.6%) of the 28 pts undergoing biopsy also was diagnosed with CD; EMA was positive in 1 (3.6%) pts with a newly diagnosed CD; IgA AGA - in 7 (25%), and IgG AGA - in 1 (3.6%); 14 of 26 subjects were HLA-DQ2 positive, in addition 4 had a celiac-type DQ8 haplotype; thus, 18 (69%) had celiac-type and 8 (31%) - a non-celiac genetic background;			IDDM - insulin dependent diabetes mellitus; ATD - autoimmune thyroid disorder (including autoimmune thyroiditis or Graves' disease); APECED - autoimmune polyendocrinopathy-candidosis-cetodermal dystrophy; 11% prevalence does not necessarily depict the true frequency of CD in pts with more than one autoimmune disorder; all 62 pts were treated in endocrinological clinic, which can lead to referral bias

**Evidence Table 6 (cont'd): Prevalence/incidence of CD in patients with diabetes**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Kordonouri, 2000 Germany  Duplicate: no	<p><b>Publication type:</b> journal</p> <p><b>Study design:</b> Cross-sectional prevalence</p> <p><b>Test/methodology:</b> IgA anti-tTG - ELISA antibody titers above 15 were considered positive; EMA - IF, fluorescence at 1:5 dilution was considered as a positive; IgA and IgG AGA - ELISA, for both methods a level above 35 AU were considered as a positive</p> <p><b>Biopsy criteria/description:</b> endoscopic biopsy; Marsh criteria</p> <p><b>Confirmatory test:</b> endoscopic biopsy; Marsh criteria (stated as a reference 9); done in 13 CD pts out of 23 suspected CD pts (7 lost to follow-up, 3 - refused biopsy); 9 were found to have biopsy proven CD; IEL per 100 enterocytes counted after immunohistochemical staining for CD8+ cells (normal values in children up to 26 IEL per 100 enterocytes)</p> <p><b>Checked IgA def.</b> yes; 9 pts out of initial 529 had below normal IgA levels and were excluded from further analysis</p>	<p><b>Ethnicity:</b> n/a</p> <p><b>Patient type/# screened:</b> 520 pts with IDDM and no clinical signs of CD</p> <p><b>Demographics:</b> 520 pts with IDDM; age (y): median 14.2, range 1.6-27.3; 47% F; medium duration of IDDM 4.0 y, range 0-23.6 y</p> <p><b>Incidence:</b></p>	23 (4.4%) of the 520 pts with IDDM were found to be positive for IgA anti-tTG; 18 (3.5%) - for EMA; and 18 (3.5%) - for IgA AGA; prevalence of biopsy proven CD in the whole group of IDDM pts was at least 1.7% (9/520), because in 10 pts with increased IgA anti-tTG levels biopsy was not performed; all 9 pts with biopsy confirmed CD were positive for anti-tTG, and 8 - for EMA			Study demonstrates that elevated IgA anti-tTG, especially when present on more than one occasion, may be more sensitive than EMA for detecting a silent form of CD; while prevalence of positive IgA anti-tTG was 4.4%, the incomplete prospective histological assessment by biopsy precludes a final calculation of the prevalence of biopsy-proven CD in this pts group

**Evidence Table 6 (cont'd): Prevalence/incidence of CD in patients with diabetes**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Lampasona, 1999 Italy  Duplicate: no	<p><b>Publication type:</b> journal</p> <p><b>Study design:</b> Cross-sectional Prevalence</p> <p><b>Test/methodology:</b> human tissue transglutaminase C - TGCA IgA and TGC IgG; the threshold for positivity was the upper first percentile of normal controls, respectively 0.9 AU for IgG TGCA and 0.3 for the IgA TGCA; typing of HLA for 128 pts with IDDM either using the standard microcytotoxicity test on lymphocytes isolated by immuno-magnetic beads or by sequence specific PCR on DNA extracted from blood mononuclear cells; subjects grouped as DR3/X, DR4/Y, DR3/4, or DRX/Y</p> <p><b>Biopsy criteria/description:</b> endoscopical biopsy; Marsh criteria</p> <p><b>Confirmatory test:</b> n/r</p> <p><b>Checked IgA def.</b> n/r</p>	<p><b>Ethnicity:</b> n/a</p> <p><b>Patient type/# screened:</b> 287 pts with a new onset IDDM; 119 pts with NIDDM; 213 pediatric controls with no family history of diabetes</p> <p><b>Demographics:</b> 287 pts with IDDM; age (y): median 10, range 0.8-33; 41% F; 119 pts with NIDDM; age (y): median 65, range 42-87; 45% F; 213 controls; age (y): median 4.4, range 0.1-11.2; 49% F</p> <p><b>Incidence:</b></p>	Increased levels of TGCA were detected in 122 of 287 pts with IDDM (43%; CI 37-48%); of the pts 25 (9%; CI 6-13%) had raised levels of IgA TGCA and 121 (42%; CI 36-48%) - IgG TGCA; in 24 pts (8%; CI 5-12%) both IgA and IgG TGCA were found	In the NIDDM group 2 pts had low levels of IgG TGCA only; as for HLA typing, 34 had DR3/4 genotype, 41 - DR3/X, 38 - DR4/Y and 15 - DRX/Y; increased TGCA were found in 22 (65% CI 46- 80%) with the DR3/4 genotype, 19 of those with DR4/Y (50%; CI 33-67%), 16 with DR3/X (39%; CI 24- 55%) and in 3 with DRX/Y (20%; CI 4- 48%)		Almost 10% of pts have autoimmunity typical of CD and another 30% have low level TGCA antibody binding; this high prevalence suggests either involvement of the gut in the pathogenesis of IDDM or that transglutaminase is a secondary autoantigen resulting from beta- cell destruction

**Evidence Table 6 (cont'd): Prevalence/incidence of CD in patients with diabetes**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Li Voon Chong, 2002 UK  Duplicate: no	<p><b>Publication type:</b> journal</p> <p><b>Study design:</b> Cross-sectional prevalence</p> <p><b>Test/methodology:</b> IgA EMA - IF; IgA AGA - ELISA; total serum IgA</p> <p><b>Biopsy criteria/description:</b> n/r</p> <p><b>Confirmatory test:</b> biopsy</p> <p><b>Checked IgA def.</b> yes</p>	<p><b>Ethnicity:</b> n/a</p> <p><b>Patient type/# screened:</b> 509 pts with IDDM assessed during 1998; treated autoimmune thyroid disease - AITD - present in 28 (5.5%); 7 (1.4%) out of 509 had known CD; 38 pts with coexisting IDDM and AITD, but without known CD studied during 1999; and 112 pts with IDDM alone and without known CD assessed during 1999</p> <p><b>Demographics:</b> age (y): mean 29.4, range 16-45; 41% F; 38pts with coexisting IDDM and AITD screened for CD: age (y): mean 35.6, range 17-53; 66% F; 112 pts with IDDM alone screened for CD: age (y): mean 30.6+-9, range 16-57; 43% F</p> <p><b>Incidence:</b></p>	1) prevalence of known CD in 509 IDDM pts was 1.4% (7/509); 2 of these 7 pts later on developed AITD	2) in the 38 pts with coexisting IDDM and AITD screening revealed 1 pts with increased IgA EMA, but normal IgA AGA levels; none were diagnosed with biopsy proven CD, making a prevalence of CD 0% in this group	3) in the 112 pts with IDDM alone screening for CD revealed 2 pts with increased IgA EMA and normal IgA AGA, 1 of whom had biopsy confirmed CD, making a prevalence of CD in this group 0.9%	Undiagnosed CD in pts with both IDDM and AITD is not increased compared with pts with IDDM alone; because 2 of 7 pts with known CD subsequently developed hypothyroidism, authors suggest that pts with known CD and IDDM be annually screened for AITD

**Evidence Table 6 (cont'd): Prevalence/incidence of CD in patients with diabetes**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Lorini, 1996 Italy  Duplicate: no	<p><b>Publication type:</b> journal</p> <p><b>Study design:</b> Cross-sectional prevalence</p> <p><b>Test/methodology:</b> IgA and IgG AGA: ELISA; levels more than 2 SD were considered abnormal - for IgA &gt;10 AU; for IgG - &gt;7500 AU; R1-ARA: IF on rat kidney and liver; IgA EMA: IF on a distal ME; HLA-DR3, HLA-DR4, HLA-DR7</p> <p><b>Biopsy criteria/description:</b> n/r</p> <p><b>Confirmatory test:</b> intestinal biopsy in 6 pts with constantly elevated IgA AGA during a follow-up</p> <p><b>Checked IgA def.</b> n/r</p>	<p><b>Ethnicity:</b> n/a</p> <p><b>Patient type/# screened:</b> 133 pts with IDDM; 45 age-matched, apparently normal controls</p> <p><b>Demographics:</b> 133 IDDM - age (y): mean 14.1, range 1.4-28.4; 47.3% F; 53 pts were considered at the onset of IDDM and 49 of them were also investigated for a 1-10 y follow-up; 45 aged-matched controls (CO); age: mean, range n/r</p> <p><b>Incidence:</b></p>	IDDM pts: 3.75% (5/133)	IDDM pts: 3.75% (5/133)		At the diagnosis of IDDM IgA AGA were elevated in 32% (17/53), and during a follow-up it decreased within a normal limits in 13 pts; out of 32 pts with IgA AGA normal levels at the diagnosis of IDDM, 2 developed IgA AGA increased levels during a follow-up; in all pts with IgA AGA positivity during a follow-up, R1-ARA and EMA levels were also increased; high IgA AGA levels at the onset of IDDM are a transient abnormal immunological response and do not predict the occurrence of CD; they should not be considered a primary indication for performing a diagnostic intestinal biopsy unless R1-ARA and EMA are present too; HLA-Dr3 and/or DR4 were present in all 5 pts with AGA, R1-ARA and EMA positive

**Evidence Table 6 (cont'd): Prevalence/incidence of CD in patients with diabetes**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Not, 1998, USA  Duplicate: no	<p><b>Publication type:</b> journal</p> <p><b>Study design:</b> Cross-sectional prevalence</p> <p><b>Test/methodology:</b> IgG and IgA-AGA - ELISA (goat immunoglobulin) cut-off was above mean <math>\pm</math> 2 SD; IgA-EMA (IgA AGA or IgG AGA) - indirect IF on either ME or HU, cut-off n/r</p> <p><b>Biopsy criteria/description:</b> n/r</p> <p><b>Confirmatory test:</b> no biopsy in the 96 IgA/IgG pos or 8 EMA positive pts; HLA haplotype typed in 4 EMA-positive and 23 EMA-negative donors; all 4 EMA-positives carried CD-associated alleles: 3 had DQA1*0501 and DQB1*0201 haplotype and 1 - DQA1*03 and DQB1*0302</p> <p><b>Checked IgA def.</b> yes; none of 86 donors with positive IgG AGA and negative IgA AGA/EMA had IgA deficiency</p>	<p><b>Ethnicity:</b> 1,740 Caucasians (87%), 230 African-American (11.5%), and 30 Asians (1.5%)</p> <p><b>Patient type/# screened:</b> 2,000 healthy blood donors</p> <p><b>Demographics:</b> mean age: 39 y % F: 48</p> <p><b>Incidence:</b></p>	Prevalence of test positivity: 4.8% (96/2,000) for IgA and/or IgG; 0.4% (8/2,000) for EMA			No biopsy performed to diagnose CD; Confirmatory test: HLA DQA1& DQB1

**Evidence Table 6 (cont'd): Prevalence/incidence of CD in patients with diabetes**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Page, 1994, UK	<p><b>Publication type:</b> journal</p> <p><b>Study design:</b> Cross-sectional prevalence</p> <p><b>Test/methodology:</b> IgA-AGA-in-house ELISA; titers of &gt;90 U/L were considered abnormal</p> <p><b>Biopsy criteria/description:</b> n/a</p> <p><b>Confirmatory test:</b> Biopsy</p> <p><b>Checked IgA def.</b> yes (8 pts had IgA deficiency and 1 was found to have CD )</p>	<p><b>Ethnicity:</b> n/a</p> <p><b>Patient type/# screened:</b> 1,785 diabetic pts (43% with IDDM and 57% with NIDDM)</p> <p><b>Demographics:</b> n/r</p> <p><b>Incidence:</b></p>	Prevalence of test positivity: IGA-AGA was positive in 4.1% (73/1785); 49 of these 73 pts were biopsied; CD was diagnosed in 13 of 49 biopsied pts; in 8 out of 1,765 pts IgA and 1 pt was diagnosed with CD; in general, prevalence of newly diagnosed CD was at least 0.78% (14/1785); the overall prevalence of CD in the whole group (4 pts were previously diagnosed with CD) was at least 1% (18/1789); 0.4% (8/2000) for EMA			Prevalence of CD in IDDM pts group was at least 1:50 compared with 1:340 in pts with NIDDM

**Evidence Table 6 (cont'd): Prevalence/incidence of CD in patients with diabetes**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Rensch, 1996 USA  Duplicate: no	<b>Publication type:</b> journal <b>Study design:</b> <b>Test/methodology:</b> EMA <b>Biopsy criteria/description:</b> Loss of villous architecture, crypt hyperplasia, and increased IELs <b>Confirmatory test:</b> none <b>Checked IgA def.</b>	<b>Ethnicity:</b> n/a <b>Patient type/# screened:</b> type I diabetes <b>Demographics:</b> n=47; adults <b>Incidence:</b> n/a	By first EMA: 3 Biopsy proven: 3			

**Evidence Table 6 (cont'd): Prevalence/incidence of CD in patients with diabetes**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Roldan, 1998 Spain  Duplicate: no	<b>Publication type:</b> journal <b>Study design:</b> <b>Test/methodology:</b> IgA, IgG AGA (and known cases, and some tested with EMA) <b>Biopsy criteria/description:</b> ESPGAN <b>Confirmatory test:</b> none <b>Checked IgA def.</b>	<b>Ethnicity:</b> n/a <b>Patient type/# screened:</b> type I diabetes <b>Demographics:</b> n=117; children <b>Incidence:</b> n/a	By first IgA: 19 Biopsy proven: 7			Mixed group diagnosed by different means

**Evidence Table 6 (cont'd): Prevalence/incidence of CD in patients with diabetes**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Rossi, 1993, USA  Duplicate: no	<b>Publication type:</b> journal <b>Study design:</b> <b>Test/methodology:</b> EMA <b>Biopsy criteria/description:</b> ESPGAN <b>Confirmatory test:</b> none <b>Checked IgA def.</b>	<b>Ethnicity:</b> <b>Patient type/# screened:</b> type I diabetes <b>Demographics:</b> n=211; children <b>Incidence:</b>	By first EMA: 10 Biopsy proven: 3			Only 3/10 biopsied

**Evidence Table 6 (cont'd): Prevalence/incidence of CD in patients with diabetes**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Sategna-Guidetti, 1994 Italy  Duplicate: no	<b>Publication type:</b> journal <b>Study design:</b> Cross-sectional prevalence <b>Test/methodology:</b> IgA EMA - IF ME <b>Biopsy criteria/description:</b> Roy-Choudhury capsule from upper jejunum; criteria of Roy-Choudhury <b>Confirmatory test:</b> endoscopic biopsy and Roy-Choudhury capsule <b>Checked IgA def.</b> no	<b>Ethnicity:</b> n/a <b>Patient type/# screened:</b> 383 consecutive IDDM adults; 151 CD pts (as true positives) and 250 healthy and diseased controls (as true negatives) to assess IgA EMA test sensitivity and specificity <b>Demographics:</b> IDDM - age (y): mean 39, range 16-84; 43.9% F <b>Incidence:</b>	Prevalence of test positivity: CD pts -145/151 (96%) EMA positive(1:50-1:>2000); sensitivity of IgA EMA was 96%	Prevalence of biopsy proven CD in IDDM group was at least 2.6% (10/383); 2 pts out of 12 IgA EMA positives refused biopsy; prevalence of IgA EMA positivity was 3% (12/383)	Controls-0/437 EMA positive; specificity of IgA AGA was 100%	Prevalence of CD in IDDM pts group was at least 1:50 compared with 1:340 in pts with NIDDM

**Evidence Table 6 (cont'd): Prevalence/incidence of CD in patients with diabetes**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Saukkonen, 1996 Finland  Duplicate: no	<p><b>Publication type:</b> journal</p> <p><b>Study design:</b> Cross-sectional prevalence</p> <p><b>Test/methodology:</b> gA- reticulin-indirect IF goat anti-human antiserum; IgA and IgG AGA - ELISA cut-off &gt;30% of an intralaboratory standard (intra and inter-assay CV of 5.6% and 10.5% for IgA, and 6.9% and 16.1% - for IgG, respectively)</p> <p><b>Biopsy criteria/description:</b> n/r</p> <p><b>Confirmatory test:</b> Biopsy for all pts with abnormally high levels of antibodies but not for those with initially (diagnosis of IDDM) positive antibodies but negative at follow-up (6, 12, 18, 24 and 36 mos)</p> <p><b>Checked IgA def.</b> no</p>	<p><b>Ethnicity:</b> n/a</p> <p><b>Patient type/# screened:</b> 776 IDDM children</p> <p><b>Demographics:</b> children less than 16 y</p> <p><b>Incidence:</b></p>	Prevalence of CD in IDDM pts was at least 2.4% (19/776); prevalence of test positivity: at the diagnosis of IDDM and or at 24/36 months follow-up 76/775 positive for IgA-ARA and or IgA-AGA; 35 of these 76 pts were biopsied; in 17 of 35 pts biopsy confirmed CD was found; 2 pts out of 76 pts with a negative antibodies/symptomatic/ were diagnosed by biopsy; overall, 19/776 biopsy confirmed cases; 19/19 positive IgA-ARA; 14/18 genotyped for HLA DR positive for DR3 and 10 (56%) positive for DR4; DQB2 present in 17/18 (94%)			The observed prevalence of CD is an underestimate, because biopsy was not performed in 17 pts who screened positive for IgA ARA or AGA in the follow-up sample

**Evidence Table 6 (cont'd): Prevalence/incidence of CD in patients with diabetes**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Schober, 2000 Austria  Duplicate: no	<p><b>Publication type:</b> journal</p> <p><b>Study design:</b> Cross-sectional prevalence</p> <p><b>Test/methodology:</b> EMA - indirect IF of ME, any positive reading at a dilution of 1:10 was considered as a positive; IgG-AGA and IgA-AGA - ELISA; cut-off for IgG AGA was <math>\rightarrow</math>30 AU; for IgA-AGA <math>\rightarrow</math>25 AU</p> <p><b>Biopsy criteria/description:</b> Modified Marsh and Crowe; Watson-type capsule</p> <p><b>Confirmatory test:</b> Biopsy</p> <p><b>Checked IgA def.</b> yes</p>	<p><b>Ethnicity:</b> n/a</p> <p><b>Patient type/# screened:</b> 403 children and adolescents with type I diabetes</p> <p><b>Demographics:</b> age (y): mean 12.4, range 1-22; 47.9% F</p> <p><b>Incidence:</b></p>	Overall prevalence of biopsy proven CD was 1.49% (6/403); as for prevalence of test positivity: 12 pts had increased IgA EMA; 11 of these 12 were biopsied (1 refusal); on biopsy: 3 (0.74%) had Marsh I; 2 (0.49%) - Marsh 0; 1 - Marsh IIIa/c and 5 Marsh IIIc (1.49%)			

**Evidence Table 6 (cont'd): Prevalence/incidence of CD in patients with diabetes**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Sigurs, 1993 Sweden  Duplicate: no	<p><b>Publication type:</b> journal</p> <p><b>Study design:</b> Cross-sectional prevalence</p> <p><b>Test/methodology:</b> IgA- AGA - ELISA, cut off level at least 25 AU; IgA and IgG ARA - IF; titers equal to or diluted more than 1:5 were considered positive</p> <p><b>Biopsy criteria/description:</b> Watson Capsule</p> <p><b>Confirmatory test:</b> Biopsy</p> <p><b>Checked IgA def.</b> yes (3 cases)</p>	<p><b>Ethnicity:</b> n/a</p> <p><b>Patient type/# screened:</b> 436 children with IDDM</p> <p><b>Demographics:</b> age (y): mean 13.6+-4.1, range 2-21 y, 46.3% F</p> <p><b>Incidence:</b></p>	<p>Minimum prevalence of CD in IDDM pts was 4.6% (21/459); prevalence of newly diagnosed CD was 3.4% (15/436); as for prevalence of test positivity: 4.3% (19/436) were IgA AGA positive; 18 of these 19 pts were biopsied; minimum PPV for IgA ARA was 77% (13 of 17)</p>			

**Evidence Table 6 (cont'd): Prevalence/incidence of CD in patients with diabetes**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Sjoberg, 1998 Germany  Duplicate: no	<b>Publication type:</b> journal <b>Study design:</b> Cross-sectional prevalence <b>Test/methodology:</b> IgA-AGA - ELISA, titre > 8.5 AU was considered positive; IgG-AGA - ELISA, titre > 330 AU was considered positive <b>Biopsy criteria/description:</b> Marsh; Watson Capsule or gastroscopy and biopsy <b>Confirmatory test:</b> EMA-indirect IF of ME- titre ≥ 5; biopsy <b>Checked IgA def.</b> no	<b>Ethnicity:</b> n/a <b>Patient type/# screened:</b> 1,664 diabetes pts (848 IDDM; 745 NIDDM; 71 secondary diabetes) <b>Demographics:</b> IDDM - age (y): mean 46.1, range 17-86; 52.8% F; NIDDM - age (y): mean 61.7, range 24-92; 47.3 F; secondary diabetes - age (y): mean 53.9, range 33-77, 9.8% F <b>Incidence:</b>	Prevalence of biopsy proven CD was 1.8% (15/848): 8 out of 848 were previously diagnosed with CD; as for prevalence of test positivity: 258/848 were positive for IgA and/or IgG-AGA; 22/258 were positive for EMA giving a prevalence of 2.6%; 7/20 were biopsy positive (14/20 potential CD:4 death; 3 refused biopsy)	NIDDM- 1/745 previously diagnosed CD; 1/745 EMA positive; prevalence in total 0.27%	Secondary diabetes group- 3/71 IgG-AGA positive; no EMA positives; no previously diagnosed CD; prevalence of CD was 0%	Pts with previously known CD had more symptoms, more deficiency states and more autoimmune diseases than those identified by screening (p<0.001); IDDM pts with a diabetes duration of 31-40 y were characterised by a higher prevalence of CD than pts with a duration of less than 30 y (6.7% vs. 1.7%; p<0.02)

**Evidence Table 6 (cont'd): Prevalence/incidence of CD in patients with diabetes**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Spiekerkoetter, 2002 Germany  Duplicate: no	<p><b>Publication type:</b> journal</p> <p><b>Study design:</b> Cross-sectional prevalence</p> <p><b>Test/methodology:</b> human tTG: IgA/IgG assay cut-off of 9.0 units, IgG-tTGA cut-off 7.0 units, IgA-tTGA cut-off 8.3 units</p> <p><b>Biopsy criteria/description:</b> Marsh</p> <p><b>Confirmatory test:</b> biopsy</p> <p><b>Checked IgA def.</b> no, not mentioned</p>	<p><b>Ethnicity:</b> n/a</p> <p><b>Patient type/# screened:</b> ped IDDM pts</p> <p><b>Demographics:</b> n=205; ped; median age=12 y 7 mos; age range=3-19.5 y; 47.3% F</p> <p><b>Incidence:</b></p>	By IgA/IgG-tTG: 6.3% (13/205); by IgG-tTG: 5.4% (11/205); by biopsy 2.9% (6/8/13/205) [only 8 of the 13 with elevated tTGA levels agreed to biopsy]			

**Evidence Table 6 (cont'd): Prevalence/incidence of CD in patients with diabetes**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Talal, 1997 USA  Duplicate: no	<b>Publication type:</b> journal <b>Study design:</b> Cross-sectional prevalence <b>Test/methodology:</b> EMA, cut-off at dilution $\geq$ 1:10; biopsy <b>Biopsy criteria/description:</b> ESPGAN <b>Confirmatory test:</b> small bowel biopsy <b>Checked IgA def.</b> yes	<b>Ethnicity:</b> n/a <b>Patient type/# screened:</b> adult diabetic pts <b>Demographics:</b> n=185; adult; other info n/a <b>Incidence:</b>	By EMA: 4.9% (9/185); by biopsy 2.2% (4/5/9/185) [only 5 of the 9 EMA positives underwent biopsy]			

**Evidence Table 6 (cont'd): Prevalence/incidence of CD in patients with diabetes**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Valerio, 2002 Italy  Duplicate: Yes (see Celiac 1)	<b>Publication type:</b> journal <b>Study design:</b> Prevalence <b>Test/methodology:</b> IgA AGA, ELISA; IgG AGA, ELISA; IgA EMA, indirect IF (substrate n/r) <b>Biopsy criteria/description:</b> ESPGAN <b>Confirmatory test:</b> small bowel biopsy <b>Checked IgA def.</b> yes	<b>Ethnicity:</b> n/a <b>Patient type/# screened:</b> 383 type 1 diabetes pts <b>Demographics:</b> 383 Type 1 diabetics (194 M, 189 F, 49% F) age < 18 y <b>Incidence:</b> Time period: from January 1992 to December 2000	Type 1 diabetics 32/383 (8.3%); 2 out of 32 had IgA deficiency			

**Evidence Table 6 (cont'd): Prevalence/incidence of CD in patients with diabetes**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Vitoria, 1998 Spain  Duplicate: no	<p><b>Publication type:</b> journal</p> <p><b>Study design:</b> Prevalence</p> <p><b>Test/methodology:</b> AGA; EMA; intestinal biopsy; IAA, GAD65, IA2, ICA tests to assess IDDM-related pancreatic autoimmunity among CD pts</p> <p><b>Biopsy criteria/description:</b> ESPGAN</p> <p><b>Confirmatory test:</b> biopsy</p> <p><b>Checked IgA def.</b> yes, none found</p>	<p><b>Ethnicity:</b> n/a</p> <p><b>Patient type/# screened:</b> confirmed CD pts and IDDM pts; exclude confirmed CD pts for data extraction, irrelevant data</p> <p><b>Demographics:</b> 93 IDDM: pedi; mean age=10.5 y; ?% F</p> <p><b>Incidence:</b></p>	IDDM group: by AGA 17.2% (16/93); by EMA 7.25% (7/93); by biopsy 6.5% (6/93)			IDDM could develop in pts with silent, non-treated CD through gluten-mediated immune activation

## Prevalence of CD in High-Risk Patients—Relatives

Evidence Table 7: Prevalence of CD in relatives of patients with CD

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Book, 2003 USA  Duplicate: no	<b>Publication type:</b> journal <b>Study design:</b> cross-sectional prevalence <b>Test/methodology:</b> IgA-EMA; tTG-ELIZA; HLA DQA1, DQB1 <b>Biopsy criteria/description:</b> n/a <b>Confirmatory test:</b> biopsy; diagnosis based on positive biopsy or had positive EMA and tTG serologies <b>Checked IgA def.</b> n/a	<b>Ethnicity:</b> n/a; but all families were Caucasian <b>Patient type/# screened:</b> Relatives of CD pts <b>Demographics:</b> n=163 first-degree relatives, n=82 second-degree relatives, n=47 first cousins; ped & adult; mean age=?; age range=2-78 y; % F? <b>Incidence:</b>	Parents: 14.7%	Siblings: 21.3%	Offspring: 14.7%	HLA DQ available in 34/37 of the seropositives, all but one was DQ2 or DQ8
			<b>Group 4</b> Second-degree relatives: 19.5%	<b>Group 5</b> First cousins: 17.0%		

**Evidence Table 7 (cont'd): Prevalence of CD in relatives of patients with CD**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Corazza, 1997 Italy  Duplicate: no	<b>Publication type:</b> journal <b>Study design:</b> cross-sectional prevalence <b>Test/methodology:</b> AGA <b>Biopsy criteria/description:</b> Some VA <b>Confirmatory test:</b> n/a <b>Checked IgA def.</b> n/a	<b>Ethnicity:</b> n/a <b>Patient type/# screened:</b> Relatives of CD pts <b>Demographics:</b> n=328 first-degree relatives <b>Incidence:</b>	4%			

**Evidence Table 7 (cont'd): Prevalence of CD in relatives of patients with CD**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
<p>Farre, 1999 Spain</p> <p>Duplicate: no</p>	<p><b>Publication type:</b> journal</p> <p><b>Study design:</b> Cross-sectional prevalence</p> <p><b>Test/methodology:</b> IgA EMA - IF either on a ME (n=550), or HU (n=119); positive ab 1:5 dilution and characteristic honeycomb staining pattern; IgA AGA - ELISA; values over 40 AU were considered positive; HLA-DQ2 (DQA1*0501 and DQB1*0201 alleles) were assayed in 169 pts; typing performed by PCR amplification</p> <p><b>Biopsy criteria/description:</b> Watson-Crosby capsule; classification: 1) total VA; 2) severe partial VA with crypt hyperplasia; 3) minor non-specific abnormalities; 4) morphologically normal; 1 and 2 were diagnostic criterias for CD</p> <p><b>Confirmatory test:</b> Watson-Crosby capsule; HLA-DQ2 typing performed in 169 first-degree relatives of CD pts, in 60 CD pts and in 50 ethnically matched controls from the general population</p> <p><b>Checked IgA def.</b> yes, results were not explicitly given in the text. Presumably there was no case of IgA deficiency found because the alternative IgG test for such pts were not used or mentioned in the results section</p>	<p><b>Ethnicity:</b> n/a</p> <p><b>Patient type/# screened:</b> 675 first-degree relatives in 227 families of CD probands (149 pediatric and 78 adult pts)</p> <p><b>Demographics:</b> 669 first-degree relatives in 227 families of CD probands (149 pediatric and 78 adult pts) screened for CD (6 were diagnosed with CD prior to screening and excluded from the study, but accounted for overall prevalence); out of 669 relatives: 331 were parents (163 fathers, 168 mothers), 260 siblings (123 brothers and 137 sisters), and 78 children (42 sons and 36 daughters)</p> <p><b>Incidence:</b></p>	<p>The prevalence of unrecognised CD in first-degree relatives of CD pts was 4.6% (31/669); the overall prevalence of CD in this group is 5.5% (37/675 - 6 relatives of CD pts were diagnosed with CD prior to the study); as for test positivity: IgA EMA was positive in 39/669 (5.8%) and IgA-AGA - in 13/669 (1.9%) relatives; simultaneous positivity occurred in 12 of 669 relatives (1.8%); of 39 EMA-positive relatives, biopsy has been done in 32 pts (7 refused) and CD were found in 31 individuals</p>			<p>HLA-DQ2 was typed in 12 of the 32 EMA-positive relatives who underwent biopsy and was positive in all cases; HLA-DQ2 haplotype was also present in 64% (108/169) of relatives, 93% (56/60) CD pts and 18% (9/50) of controls; all unrecognised CD relatives detected by screening were DQ2 positive</p>

**Evidence Table 7 (cont'd): Prevalence of CD in relatives of patients with CD**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
<p>Fasano, 2003 USA Duplicate: no</p>	<p><b>Publication type:</b> journal <b>Study design:</b> Cross-sectional prevalence <b>Test/methodology:</b> EMA - IF; ME or HU; positive at 1:10; all positive EMA tested with human tTG ELISA positive at 2 SD above mean of healthy controls; HLA DQ2 and DQ8 <b>Biopsy criteria/description:</b> single pathologist, Marsh <b>Confirmatory test:</b> htTG; biopsy; also small subset 98 EMA positive and 114 EMA neg had HLA DQ2/8 tested <b>Checked IgA def.</b> n/a</p>	<p><b>Ethnicity:</b> 94% white; 3% black; 1.5% Hispanic, 1% Asian, 0.5% other <b>Patient type/# screened:</b> 9,019 at risk of CD; 4,126 not at risk <b>Demographics:</b> at risk - symptoms of celiac (1326 children, 1909 adults); CD associated disorders; 4,508 1st deg relatives; 1,275 2nd deg relatives; Not at risk – 2,000 blood donors (mean age 39 range 19-65); 1,119 school children (mean age 12.3, range 6-18); 1,007 adults and children for routine physical (mean age 39, and 13.7, range, 19-71, and 2-18) <b>Incidence:</b></p>	<p>1) At risk - a) 1st deg relatives - 205/4,508 (4.55%); children - 54/1,294 (4.17%); adults - 151/3,214 (4.70%); b) symptomatic adults - 28/1,910 (1.47%); children - 53/1,326 (4.00%); 2) Not at risk - 1/4126 (0.75%); adults - 27/2,845 (0.95%); children - 4/1,281 (0.31%); biopsy in EMA pos - Marsh 1- 0%; 2 - 30/116 (25.9%); 3a - 46/116 (39.7%); 3b - 24/116 (20.7%); 3c - 16/116 (13.8%); HLA DQ2-76/98 (78%); DQ8 - 16/98 (16%); DQ2 and 8 - 6/98 (6%); all EMA pos were also tTG pos</p>			

**Evidence Table 7 (cont'd): Prevalence of CD in relatives of patients with CD**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Hill 2000 USA Duplicate: no	<p><b>Publication type:</b> journal</p> <p><b>Study design:</b> Cross-sectional prevalence</p> <p><b>Test/methodology:</b> IgA-EMA - IF on ME, methodology n/a; IgA and IgG-AGA - ELISA, methodology n/a</p> <p><b>Biopsy criteria/description:</b> Marsh</p> <p><b>Confirmatory test:</b> Biopsy</p> <p><b>Checked IgA def.</b> yes</p>	<p><b>Ethnicity:</b> n/a</p> <p><b>Patient type/# screened:</b> 1,200 pediatric group of individuals at risk of CD; pts were assigned to one of 7 groups: 1) chronic diarrhea (n=182); 2) abdominal pain (n=316); 3) IDDM (n=81); 4) short stature (n=259); 5) failure to thrive (n=123); 6) miscellaneous (down's syndrome, thyroiditis, anemia, unexplained elevation of liver enzymes) (n=47); 7) asymptomatic relatives (n=192)</p> <p><b>Demographics:</b> 1,200 pediatric group of individuals at risk of CD; age (y): mean n/a, range 6 mos - 20 y; % F n/a</p> <p><b>Incidence:</b></p>	Prevalence of CD in pts at risk was 1 in 57 (21/1200); prevalence of test positivity: 2.8% (34/1200) was both EMA and AGA positive; 26 of pts (19 EMA positive) underwent biopsy and 21 were diagnosed with CD			15 pts out of 34 EMA positives refused biopsy; thus prevalence of biopsy proven CD in pts at risk was at least 1 in 57; if considered above mentioned 15 pts prevalence of CD could have been 1 in 33 (36/1200)

**Evidence Table 7 (cont'd): Prevalence of CD in relatives of patients with CD**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Hogberg, 2003 Sweden Duplicate: no	<p><b>Publication type:</b> journal</p> <p><b>Study design:</b> longitudinal follow-up, incidence &amp; prevalence</p> <p><b>Test/methodology:</b> IgA-AGA, ELISA cut off for a positive outcome 42.5 units; IgA-EMA, indirect IF using ME the antibody titre was defined as the highest serum dilution yielding positive fluorescence; IgA-TGA, commercially available ELISA, highest cut-off value for positive results &gt;30 units.</p> <p><b>Biopsy criteria/description:</b> revised ESPGAN. Grade 1 normal; Grade 2 mild; Grade 3 moderate, Grade 4 total VA</p> <p><b>Confirmatory test:</b> Small bowel biopsy</p> <p><b>Checked IgA def.</b> yes, 5 cases found</p>	<p><b>Ethnicity:</b> n/a</p> <p><b>Patient type/# screened:</b> 120 first degree relatives of CD pts</p> <p><b>Demographics:</b> 56 parents (adults) mean age 53.6 range (43-78); 44 siblings (ped and adult) mean age 27.4 y age range (15-49); offspring 20 mean age 6.5 y age range (1-16). Gender not reported</p> <p><b>Incidence:</b> Time period: 20 y follow-up study. Original study period Sept. 1975- Feb. 1981</p>	10/120 (8.3%) prevalence, 2 were diagnosed in the original study 20 y prior, 8 new cases from the present follow-up study group. (biopsy confirmed); Serum results; IgA AGA 8/120 pos; IgA EMA 0.5% (6/120) pos; IgA TGA 3.8% (4/104) pos (3 pts with positive biopsy were not tested for IgA TGA)			IgA deficient pt, IgG antibodies positive. Biopsy findings were in serologically positive relatives IgA TGA was performed in sera of n=104 when access to assay became available 1 y later.

**Evidence Table 7 (cont'd): Prevalence of CD in relatives of patients with CD**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Holm, 1993 Finland Duplicate: no	<b>Publication type:</b> journal <b>Study design:</b> cross-sectional prevalence <b>Test/methodology:</b> biopsy <b>Biopsy criteria/description:</b> Some VA <b>Confirmatory test:</b> n/a <b>Checked IgA def.</b> n/a	<b>Ethnicity:</b> n/a <b>Patient type/# screened:</b> Relatives of celiac pts <b>Demographics:</b> n=121 first-degree relatives <b>Incidence:</b>	10.7%			

**Evidence Table 7 (cont'd): Prevalence of CD in relatives of patients with CD**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Korponay-Szabo, 1998 Hungary  Duplicate: no	<p><b>Publication type:</b> journal</p> <p><b>Study design:</b> Cross-sectional Prevalence</p> <p><b>Test/methodology:</b> IgA EMA - IF using ME and human duodenum as substrate; serum total IgA, deficiency was defined as total serum IgA&lt;0.1 g/L</p> <p><b>Biopsy criteria/description:</b> Watson capsule; histological evaluation according to the grading of Fontaine and Navarro; ESPGAN criteria for CD</p> <p><b>Confirmatory test:</b> biopsy; Watson-Crosby capsule; biopsy done in 77 out of 81 pts with positive IgA EMA</p> <p><b>Checked IgA def.</b> yes; 2.1% (21/997) of all family members studied were IgA deficient; among CD diagnosed pts 10.8% (9/83) were IgA deficient</p>	<p><b>Ethnicity:</b> n/a</p> <p><b>Patient type/# screened:</b> 997 family members of 396 pts with CD screened for CD</p> <p><b>Demographics:</b> 997 family members of 396 pts with CD screened for CD (521 parents, 368 siblings, 54 children and 54 second-degree relatives); age: mean/median, range n/a</p> <p><b>Incidence:</b> # New cases: 75 new cases of CD; incidence of CD was 7.6% (75/989)</p>	Prevalence of CD in the whole screened population was 8.3% (83/997); prevalence for first-degree relatives in total: 8.6% (80/943)	parents: 4.2% (22/521)	siblings: 13.8% (51/368)	Screening revealed 75 new CD cases (in 71 IgA EMA were positive and in 4 - negative); 8 pts had been previously diagnosed with CD and were on a GFD and thus EMA negative; the total number of CD in the family members was 83; in 55 families two, in 10 families 3, in 1 family 4 and in 1 more family 6 members were affected by CD
			<b>Group 4</b> children: 12.9% (7/54);	<b>Group 5</b> second-degree relatives: 5.6% (3/54)		

**Evidence Table 7 (cont'd): Prevalence of CD in relatives of patients with CD**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Kotze, 2001 Brazil  Duplicate: no	<b>Publication type:</b> journal <b>Study design:</b> cross-sectional prevalence <b>Test/methodology:</b> EMA <b>Biopsy criteria/description:</b> n/a <b>Confirmatory test:</b> n/a <b>Checked IgA def.</b> n/a	<b>Ethnicity:</b> n/a <b>Patient type/# screened:</b> Relatives of celiac pts <b>Demographics:</b> n=115 first-degree relatives <b>Incidence:</b>	3.5%			Negative serology; EMA titre =1/5

**Evidence Table 7 (cont'd): Prevalence of CD in relatives of patients with CD**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Mustalahti, 2002 Finland  Duplicate: no	<p><b>Publication type:</b> journal</p> <p><b>Study design:</b> Cross-sectional Prevalence</p> <p><b>Test/methodology:</b> IgA-EMA- indirect IF on a HU, serum dilution of at least 1:5 was considered positive; IgA and IgG AGA - ELISA, level of AGA was considered positive when mean+2 SD of healthy controls; IgA-tTG-ELISA, values at least 20 AU were considered positive</p> <p><b>Biopsy criteria/description:</b> Small-bowel biopsies with pediatric or adult Watson capsule or forceps from the distal duodenum</p> <p><b>Confirmatory test:</b> Biopsy; DQ2 and DQ8 typing on PCR</p> <p><b>Checked IgA def.</b> n/a</p>	<p><b>Ethnicity:</b> n/a</p> <p><b>Patient type/# screened:</b> 466 healthy first-degree family members of CD pts</p> <p><b>Demographics:</b> 466 healthy first-degree family members of CD pts; age (y): median 41, range 2-90</p> <p><b>Incidence:</b></p>	Prevalence of CD in healthy, first-degree relatives of CD pts was 6.2% (29/466); as for test positivity: 72/466 pts (44 EMA pos 9.4% and 48 IgA pos 10.3%) were positive for EMA and IgA; IgA-tTG was positive in 12.9% (60/466) pts; IgA-EMA detected 97% of CD (28/29) and IgA-AGA detected - 51% (15/29); all 44 IgA EMA and 19/28 AGA positive pts were positive for DQ2; all 29 newly diagnosed CD pts were DQ2 positive			15 pts out of 34 EMA positives refused biopsy; thus prevalence of biopsy proven CD in pts at risk was at least 1 in 57; if considered above mentioned 15 pts prevalence of CD could have been 1 in 33 (36/1,200)

**Evidence Table 7 (cont'd): Prevalence of CD in relatives of patients with CD**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Pittschieler, 2003 Italy  Duplicate: no	<p><b>Publication type:</b> journal</p> <p><b>Study design:</b> Prospective prevalence</p> <p><b>Test/methodology:</b> EMA, HUC examined by fluorescence. Absence of binding was considered a negative test; HLA typing was done exclusively once diagnosis of CD was confirmed= micro-lymphocytotoxic technique</p> <p><b>Biopsy criteria/description:</b> Small intestinal biopsy of first jejunal loop. Ferraris Watson capsule. Normal values being less than 3.2 cells/mm <math>\gamma/\delta</math> T-cell receptors by immunohistology</p> <p><b>Confirmatory test:</b> biopsy, HLA typing</p> <p><b>Checked IgA def.</b> yes, none found</p>	<p><b>Ethnicity:</b> n/a</p> <p><b>Patient type/# screened:</b> 92 first-degree relatives of CD pts. Yearly testing over 12 year period</p> <p><b>Demographics:</b> 92 at risk (first-degree relatives; 18 offspring and 74 siblings) aged 2-18 y</p> <p><b>Incidence:</b> Time period: 12 year time period January 1990-December 2001</p>	6.5% (6/92) confirmed CD by both serology & biopsy within a few months of CD diagnosis in one of their relatives; 5 total VA and 1 partial VA; over 2-5 y a further 5.8% (5/86) confirmed positive with both HU EMA IgA and biopsy 1 partial VA and 4 total VA; combined prevalence=12% (11/92); 11/11 were carriers of HLA DQ2/ heterodimers			All 11 were clinically silent for CD

**Evidence Table 7 (cont'd): Prevalence of CD in relatives of patients with CD**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Polvi, 1996 Finland  Duplicate: no	<p><b>Publication type:</b> journal</p> <p><b>Study design:</b> Cross-sectional Prevalence</p> <p><b>Test/methodology:</b> DQA1*0501 and DQB1*0201</p> <p><b>Biopsy criteria/description:</b> n/a</p> <p><b>Confirmatory test:</b> n/a</p> <p><b>Checked IgA def.</b> n/a</p>	<p><b>Ethnicity:</b> n/a</p> <p><b>Patient type/# screened:</b> 31 CD index pts; 14 silent CD pts; 29 healthy siblings of CD index pts; 32 controls;</p> <p><b>Demographics:</b> n/a</p> <p><b>Incidence:</b></p>	<p>Prevalence of DQA1*0501 and DQB1*0201 positivity in CD index group: 100% (31/31) CD index pts were positive; relative risk for having at least two alleles 156</p>	<p>Prevalence of DQA1*0501 and DQB1*0201 positivity in silent CD group: 100% (14/14) silent CDs</p>	<p>Prevalence of DQA1*0501 and DQB1*0201 positivity in siblings of index CD pts: 48% (14/29) healthy sibs</p>	<p>There was a very strong association of DQA1*0501 and DQB1*0201 alleles positivity with CD; the RR for an individual having at least 2 susceptibility alleles suffering from CD was as high as 156 (p&lt;0.001); RR was also high (67; p&lt;0.001) when the index cases were compared with their siblings. The etiologic fraction in both cases was 0.99</p>
			<p><b>Group 4</b></p> <p>prevalence of DQA1*0501 + DQB1*0201 in cadaver organ donors: 28% (9/32) controls</p>			

**Evidence Table 7 (cont'd): Prevalence of CD in relatives of patients with CD**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Robinson, 1971 UK	<p><b>Publication type:</b> journal</p> <p><b>Study design:</b> Cross-sectional prevalence</p> <p><b>Test/methodology:</b> small bowel biopsy, Crosby capsule</p> <p><b>Biopsy criteria/description:</b> Other: normal, convoluted, and flat; either partial or subtotal VA represents confirmed CD</p> <p><b>Confirmatory test:</b> biopsy</p> <p><b>Checked IgA def.</b> n/a</p>	<p><b>Ethnicity:</b> n/a</p> <p><b>Patient type/# screened:</b> relatives of celiac pts</p> <p><b>Demographics:</b> 1) n=68, first-degree relatives=parents &amp; siblings; 2) n=164, second-degree relatives=uncles &amp; aunts, 50.6% F; 3) n=238, third-degree relatives=cousins, 52.1% F</p> <p><b>Incidence:</b></p>	First-degree: 4.4% (3/68)	Second-degree: 0% (0/164)	Third-degree: 0% (0/238)	

**Evidence Table 7 (cont'd): Prevalence of CD in relatives of patients with CD**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Rolles, 1974 UK  Duplicate: no	<b>Publication type:</b> journal <b>Study design:</b> cross-sectional prevalence <b>Test/methodology:</b> biopsy <b>Biopsy criteria/description:</b> n/r <b>Confirmatory test:</b> n/a <b>Checked IgA def.</b> n/a	<b>Ethnicity:</b> n/a <b>Patient type/# screened:</b> Relatives of CD pts-CD child in family <b>Demographics:</b> n=72 first-degree relatives <b>Incidence:</b>	5.6%			

**Evidence Table 7 (cont'd): Prevalence of CD in relatives of patients with CD**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Rostami, 2000 Netherlands	<p><b>Publication type:</b> journal</p> <p><b>Study design:</b> Cross-sectional prevalence</p> <p><b>Test/methodology:</b> IgA-EMA- indirect IF on a primate ileum; min 1:5 and 1:100; IgA-AGA- ELISA, &gt;25 AU/mL was considered positive; IgA by nephelometry</p> <p><b>Biopsy criteria/description:</b> EPSGAN; Marsh 1992</p> <p><b>Confirmatory test:</b> biopsy in all pts with positivity of symptoms and/or serology tests</p> <p><b>Checked IgA def.</b> yes; 3 individuals were found to have IgA deficiency</p>	<p><b>Ethnicity:</b> n/a</p> <p><b>Patient type/# screened:</b> 388 first-degree relatives of CD pts</p> <p><b>Demographics:</b> age (y): mean 39, range 1-80; 60% F</p> <p><b>Incidence:</b> # New cases: 17 new cases of CD; incidence of 5% (17/338)</p>	Overall prevalence of CD in the first-degree relatives of CD pts was 11% (37/338); there were 17 new and 20 previously diagnosed CD cases; as for the prevalence of test positivity: 28% (96/338) were positive for clinical complaints + lab tests (4 pts) and serology screening; 17/96 (18%) biopsy positive; 6/17 Marsh IIIc; 5/17 Marsh IIIa; 6/17 strongly positive EMA and AGA			

**Evidence Table 7 (cont'd): Prevalence of CD in relatives of patients with CD**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Stokes, 1976 UK  Duplicate: no	<b>Publication type:</b> journal <b>Study design:</b> Cross-sectional Prevalence <b>Test/methodology:</b> biopsy <b>Biopsy criteria/description:</b> biopsy result must be grade III to be considered confirmed CD: subtotal VA <b>Confirmatory test:</b> biopsy <b>Checked IgA def.</b> n/a; no serology done; not mentioned	<b>Ethnicity:</b> n/a <b>Patient type/# screened:</b> Relatives of CD pts <b>Demographics:</b> n=326; children and adult; other info n/a <b>Incidence:</b> # New cases: 17 new cases of CD; incidence of 5% (17/338)	Fathers: 10.3% (4/39)	Mothers: 2.3% (1/43)	Brothers: 7.4% (5/68)	
			<b>Group 4</b>	<b>Group 5</b>	<b>Group 6</b>	
			Sisters: 17.3% (13/75)	Sons: 8.3% (5/60)	Daughters: 17.1% (7/41)	
			<b>Group 7</b>			
			19.2% (35/182 total biopsied)			

**Evidence Table 7 (cont'd): Prevalence of CD in relatives of patients with CD**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Tursi, 2003 Italy  Duplicate: no	<p><b>Publication type:</b> journal</p> <p><b>Study design:</b> Prevalence</p> <p><b>Test/methodology:</b> IgA IgG AGA, ELISA lower limit of positivity of IgA 0.2 EU/mL and IgG 10.0 EU/mL; IgA EMA, indirect IF on ME; IgA tTG, ELISA using GP liver substrate lower limit of positivity of these antibodies was 7 UA/mL</p> <p><b>Biopsy criteria/description:</b> Marsh criteria 6 biopsies from small bowel from the second part of duodenum. Marsh Type I -'infiltrative' lesions with &gt;30 lymphocytes/100 epithelial cells; Type II-'infiltrative/hyperplastic' lesions; Type III-'partial (sub)total VA; partial VA Marsh IIIa); subtotal VA Marsh IIIb); and total VA as Marsh IIIc)</p> <p><b>Confirmatory test:</b> Biopsy</p> <p><b>Checked IgA def.</b> yes</p>	<p><b>Ethnicity:</b> n/a</p> <p><b>Patient type/# screened:</b> 111 first-degree relatives of pts with CD</p> <p><b>Demographics:</b> at risk 111 first degree relatives 38 M, 73 F, mean age 28.7 y, range (10-65 y); 65.8% F</p> <p><b>Incidence:</b> n/a</p>	CD diagnosed in 49/11 screened relatives (44.14%) prevalence; prevalence AGA 36.73%; EMA 38.78% ; anti-tTG 44.89%			Prevalence of antibodies was higher in severe histological lesions (Marsh IIIb-c) than in not so severe lesions (Marsh I-IIIa). Noteworthy, prevalence of AGA was higher than that of EMA/anti-tTG in less severe histological lesions

**Evidence Table 7 (cont'd): Prevalence of CD in relatives of patients with CD**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Vitoria, 1994 Spain  Duplicate: no	<p><b>Publication type:</b> journal</p> <p><b>Study design:</b> Cross-sectional Prevalence</p> <p><b>Test/methodology:</b> IgA-AGA&gt;0.085 AU in children, &gt;0.128 AU in adults; IgG-AGA&gt;0.45 AU in children, &gt;0.317 AU in adults; EMA titre≥1:5</p> <p><b>Biopsy criteria/description:</b> ESPGAN</p> <p><b>Confirmatory test:</b> biopsy</p> <p><b>Checked IgA def.</b> n/a</p>	<p><b>Ethnicity:</b> n/a</p> <p><b>Patient type/# screened:</b> first degree relatives of celiac pts</p> <p><b>Demographics:</b> n=642 (380 parents, 249 siblings, 13 offspring); ped and adult; mean age= 27 y; age range=1-64 y; 52.3% F</p> <p><b>Incidence:</b></p>	<p><b>Group 1</b></p> <p>Fathers: by IgA-AGA: 11.7% (21/180), by IgG-AGA: 13.9% (25/180), by EMA: 0% (0/180), by biopsy: 0.56% (1/180)</p>	<p><b>Group 2</b></p> <p>Mothers: by IgA- AGA: 9% (18/200), by IgG-AGA: 8.5% (17/200), by EMA: 2.5% (5/200), by biopsy: 2.5% (5/200))</p>	<p><b>Group 3</b></p> <p>Brothers: by IgA-AGA: 8.3% (10/120), by IgG-AGA: 9.2% (11/120), by EMA: 3.3% (4/120), by biopsy: 2.5% (3/120)</p>	
			<p><b>Group 4</b></p> <p>Sisters: by IgA-AGA: 12.4% (16/129), by IgG-AGA: 15.5% (20/129), by EMA: 5.4% (7/129), by biopsy: 6.2% (8/129)</p>	<p><b>Group 5</b></p> <p>Offspring: by IgA- AGA: 15.4% (2/13), by IgG-AGA: 23.1% (3/13), by EMA: 7.7% (1/13), by biopsy: 7.7% (1/13)</p>		

## Prevalence of CD in Associated Clinical Conditions—Anemia

Evidence Table 8. Prevalence of CD in patients with anemia

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Akerman, 1996 Israel  Duplicate: no	<b>Publication type:</b> journal <b>Study design:</b> cross-sectional prevalence <b>Test/methodology:</b> EGD/Biopsy <b>Biopsy criteria/description:</b> subtotal or greater VA <b>Confirmatory test:</b> n/a <b>Checked IgA def.</b> n/a	<b>Ethnicity:</b> n/a <b>Patient type/# screened:</b> out pts with IDA (50% symptomatic) <b>Demographics:</b> 93 pts; mostly adults although some teens <b>Incidence:</b>	By biopsy: 13			

**Evidence Table 8 (cont'd): Prevalence of CD in patients with anemia**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Annibale, 2001 Italy  Duplicate: no	<p><b>Publication type:</b> journal</p> <p><b>Study design:</b> cross-sectional prevalence</p> <p><b>Test/methodology:</b> antral (n=3 per pt)/body(n=3)/duodenal(n=2) biopsies; assessment of gastritis according to Sydney system; March classification for CD; colonoscopy for suspicious lesions; refusal of colonoscopy led to double-contrast barium enema; NOTE: no serology done</p> <p><b>Biopsy criteria/description:</b> n/a</p> <p><b>Confirmatory test:</b> Biopsies</p> <p><b>Checked IgA def.</b> no, not mentioned</p>	<p><b>Ethnicity:</b> n/a</p> <p><b>Patient type/# screened:</b> iron deficiency</p> <p><b>Demographics:</b> 81 pts; adult; median age 54; range 23-87; 74% F</p> <p><b>Incidence:</b></p>	By biopsy: 6% (4/71); 71 pts formed the final sample of completely examined subjects. Note: no serology done			The celiac pts are younger compare to the rest of the sample

**Evidence Table 8 (cont'd): Prevalence of CD in patients with anemia**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Annibale, 2003 Italy  Duplicate: no	<p><b>Publication type:</b> journal</p> <p><b>Study design:</b> Prospective prevalence</p> <p><b>Test/methodology:</b> IgA tTG, ELISA normal values were &lt;7 UA/mL</p> <p><b>Biopsy criteria/description:</b> Marsh</p> <p><b>Confirmatory test:</b> Biopsy - antral, gastric body, and duodenal biopsy collected</p> <p><b>Checked IgA def.</b> n/a</p>	<p><b>Ethnicity:</b> n/a</p> <p><b>Patient type/# screened:</b> IDA in premenopausal women</p> <p><b>Demographics:</b> 59 premenopausal women age range 22-54 y with IDA Hb &lt; 12g/dLF</p> <p><b>Incidence:</b> Time period: March-July 2000</p>	7/59 (11.9%) had positive tTG antibodies titre; biopsy-confirmed: 8.5% (5/59)			40/59 subjects tested positive for various tests including tTG for CD detection and progressed to have upper endoscopy with biopsy

**Evidence Table 8 (cont'd): Prevalence of CD in patients with anemia**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Corazza, 1997 Republic of San Marino Duplicate: no	<b>Publication type:</b> journal <b>Study design:</b> Cross-sectional prevalence <b>Test/methodology:</b> indirect IF EMA titre >1:5; biopsy <b>Biopsy criteria/description:</b> n/a <b>Confirmatory test:</b> biopsy <b>Checked IgA def.</b> no, but mentioned as such that it could have caused some misclassification of pts, but the effect should be minimal given the powerful sensitivity and specificity of EMA test	<b>Ethnicity:</b> n/a <b>Patient type/# screened:</b> random sample stratified for age and sex <b>Demographics:</b> n=2,237; adult median age: 44 y; range: 20-87 y % F: 53.2 <b>Incidence:</b>	By both EMA and biopsy: 1 in 559 pts, or 1.79 per 1000 [0.18%]			

**Evidence Table 8 (cont'd): Prevalence of CD in patients with anemia**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Dickey, 1997 UK  Duplicate: no	<p><b>Publication type:</b> journal</p> <p><b>Study design:</b> cross-sectional prevalence</p> <p><b>Test/methodology:</b> EMA; AGA; methodology and cut-off levels n/a</p> <p><b>Biopsy criteria/description:</b> endoscopic biopsy; criteria n/a; finding of VA and IELs in duodenal biopsy</p> <p><b>Confirmatory test:</b> Biopsy</p> <p><b>Checked IgA def.</b> n/a</p>	<p><b>Ethnicity:</b> n/a</p> <p><b>Patient type/# screened:</b> 41 pts with IDA and no specific GI symptoms or evidence of a bleeding on FOBT or upper GI and colonic endoscopy screened for achlorhydric gastric atrophy and CD</p> <p><b>Demographics:</b> 41 pts with IDA screened for achlorhydric gastric atrophy and CD; age (y): mean 59, range 15-84; 61% F</p> <p><b>Incidence:</b></p>	prevalence of CD in IDA pts was 10% (4/41); EMA was positive in 3 (75%) of 4 these pts; prevalence of EMA and/or AGA being positive was 10% (4/41)			The celiac pts are younger compared to the rest of the sample

**Evidence Table 8 (cont'd): Prevalence of CD in patients with anemia**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Howard, 2002 UK  Duplicate: no	<b>Publication type:</b> journal <b>Study design:</b> cross-sectional prevalence <b>Test/methodology:</b> IgA/IgG-AGA and EMA then biopsy <b>Biopsy criteria/description:</b> n/a <b>Confirmatory test:</b> n/a <b>Checked IgA def.</b> n/a	<b>Ethnicity:</b> n/a <b>Patient type/# screened:</b> IDA identified through lab <b>Demographics:</b> 258 adult pts with IDA, folate <b>Incidence:</b>	By first serology: 28 by biopsy: 12			24/28 biopsied

**Evidence Table 8 (cont'd): Prevalence of CD in patients with anemia**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Kepczyk, 1995 USA  Duplicate: no	<b>Publication type:</b> journal <b>Study design:</b> cross-sectional prevalence <b>Test/methodology:</b> EGD/biopsy <b>Biopsy criteria/description:</b> VA, crypt hyperplasia, inflammatory infiltrate <b>Confirmatory test:</b> n/a <b>Checked IgA def.</b> n/a	<b>Ethnicity:</b> n/a <b>Patient type/# screened:</b> Mostly symptomatic out pts with IDA <b>Demographics:</b> 39 adult pts with IDA <b>Incidence:</b>	By biopsy: 4			

**Evidence Table 8 (cont'd): Prevalence of CD in patients with anemia**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
McIntyre, 1993 UK  Duplicate: no	<p><b>Publication type:</b> journal</p> <p><b>Study design:</b> cross-sectional prevalence</p> <p><b>Test/methodology:</b> duodenal biopsy performed in 50 pts; upper GI endoscopy performed in 108 pts</p> <p><b>Biopsy criteria/description:</b> n/a</p> <p><b>Confirmatory test:</b> prevalence of biopsy proven CD was at least 6% (3/50)</p> <p><b>Checked IgA def.</b> No serology tests done. Results based on clinical findings of upper &amp; lower GI symptoms. Prevalence was calculated only in biopsy-performed group of pts that consisted of 50 individuals.</p>	<p><b>Ethnicity:</b> n/a</p> <p><b>Patient type/# screened:</b> 111 pts with IDA</p> <p><b>Demographics:</b> 111 pts with IDA; age (y): mean 63+-17.3, range 20-86; 61.3% F</p> <p><b>Incidence:</b></p>	Prevalence of biopsy proven CD was at least 6% (3/50)			The celiac pts are younger compare to the rest of the sample

**Evidence Table 8 (cont'd): Prevalence of CD in patients with anemia**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Oxentenکو, 2002 USA  Duplicate: no	<b>Publication type:</b> journal <b>Study design:</b> cross-sectional prevalence <b>Test/methodology:</b> endoscopic biopsy of second and third parts of duodenum <b>Biopsy criteria/description:</b> CD was defined as total or partial VA with IELs <b>Confirmatory test:</b> Biopsy <b>Checked IgA def.</b> NA	<b>Ethnicity:</b> n/a <b>Patient type/# screened:</b> 113 pts with IDA <b>Demographics:</b> age (y): mean 55.6+-15.3, median 54, range 20-86; 71.7% F <b>Incidence:</b>	Prevalence of CD was 15% (17/113); 10 of these 17 pts had positive endoscopic markers suggestive of CD; 8 pts with endoscopic markers present did not have CD on biopsy			Only biopsy/no serology tests performed

**Evidence Table 8 (cont'd): Prevalence of CD in patients with anemia**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Ransford, 2002 UK  Duplicate: no	<p><b>Publication type:</b> journal</p> <p><b>Study design:</b> cross-sectional prevalence</p> <p><b>Test/methodology:</b> IgA-EMA-ME, titers &gt; 1:5 was considered positive; IgA tTG- ELISA, cut-off n/a</p> <p><b>Biopsy criteria/description:</b> revised ESPGAN; duodenal histologic changes were graded according to Marsh criteria</p> <p><b>Confirmatory test:</b> Biopsy</p> <p><b>Checked IgA def.</b> No</p>	<p><b>Ethnicity:</b> n/a</p> <p><b>Patient type/# screened:</b> 484 anemic pts; 498 age and sex matched controls</p> <p><b>Demographics:</b> n/a</p> <p><b>Incidence:</b></p>	<p>Prevalence of newly diagnosed CD in anemic pts was at least 2.2% (11/484) prevalence of CD in "EMA positive pts" was 1 in 28; prevalence of CD in "definite celiac + ↑IELs alone+not biopsied group" was 1 in 30; prevalence of CD in "definite celiac and ↑IELs alone group" was 1 in 35; prevalence of CD in "definite celiac group" was 1 in 44</p>	<p>Prevalence of newly diagnosed CD in age &amp; sex matched non-anemic pts was 0.2% (1/484); prevalence of CD in "EMA positive group" was 1 in 83; prevalence of CD in "definite celiac + ↑IELs alone+ not biopsied group" was 1 in 100; prevalence of CD in "definite celiac &amp; ↑IELs alone group" was 1 in 166; prevalence of CD in "definite celiac group" was 1 in 498</p>		<p>Prevalence of newly diagnosed CD in anemic pts was at least 2.2% (11/484) compared with 0.2% (1/484) that of non-anemic pts (p&lt;0.01)</p>

**Evidence Table 8 (cont'd): Prevalence of CD in patients with anemia**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Unsworth, 2000 UK  Duplicate: no	<p><b>Publication type:</b> journal</p> <p><b>Study design:</b> cross-sectional prevalence</p> <p><b>Test/methodology:</b> plasma diluted 1:5 IgA EMA using HU as substrate. Seropositives tested for IgA and IgG AGA ELISA and tTG ELISA using GP liver tTG</p> <p><b>Biopsy criteria/description:</b> n/a</p> <p><b>Confirmatory test:</b> small bowel biopsy</p> <p><b>Checked IgA def.</b> n/a</p>	<p><b>Ethnicity:</b> n/a</p> <p><b>Patient type/# screened:</b> 110,937 blood donors, 1,380 anaemic donors, 483 with haemaglobin(&lt;11 g/dL for women; &lt;13.5 g/dL for men)</p> <p><b>Demographics:</b> 1,380 anemic adult blood donors 87% women (age range n/a) 483 anemic pts meeting criteria 84% women</p> <p><b>Incidence:</b></p>	<p>IgA EMA positive 32/483 (6.6%); 25/32 had small bowel biopsy (4 pts lost to follow-up and 3 refused further testing) 22/25 had positive small bowel biopsy(88%)</p> <p>Subsequent results 22/32 cases IgA AGA positive; 26/32 cases were either IgA or IgG AGA pos; 31/32 cases pos using ME as substrate rather than HU; 31/32 were IgA tTG antibody pos</p>	<p>Prevalence of newly diagnosed CD in age &amp; sex matched non-anemic pts was 0.2% (1/484); prevalence of CD in "EMA positive group" was 1 in 83; prevalence of CD in "definite celiac +↑IELs alone+ not biopsied group" was 1 in 100; prevalence of CD in "definite celiac &amp; ↑IELs alone group" was 1 in 166; prevalence of CD in "definite celiac group" was 1 in 498</p>	<p>Prevalence of newly diagnosed CD in anemic pts was at least 2.2% (11/484) compared with 0.2% (1/484) that of non-anemic pts (p&lt;0.01)</p>	

**Evidence Table 8 (cont'd): Prevalence of CD in patients with anemia**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
van Mook, 2001 Netherlands  Duplicate: no	<p><b>Publication type:</b> journal</p> <p><b>Study design:</b> retrospective prevalence</p> <p><b>Test/methodology:</b> EGD; upper digestive tract endoscopy in 10/35; duodenal biopsies taken in 15/35</p> <p><b>Biopsy criteria/description:</b> Marsh</p> <p><b>Confirmatory test:</b> biopsy</p> <p><b>Checked IgA def.</b> no</p>	<p><b>Ethnicity:</b> n/a</p> <p><b>Patient type/# screened:</b> 35 pts with IDA, anaemia defined as Hb below 8.0 mmol/L in men or below 7.4 mmol/L in women. Iron deficiency defined as a serum ferritin level equal to or below 20 ug/L for men equal to or below 10 ug/L ; or serum iron concentration equal to or below 45 ug/dl with a transferrin saturation of 10% or less, or the absence of iron stores in bone marrow biopsy specimens.</p> <p><b>Demographics:</b> 35 pts, 22 F (63%) and 13 M (37%), median age 71 y range (22-89 y)</p> <p><b>Incidence:</b> n/a</p>	2.9% (1/35) Marsh III(C) on both biopsy and endoscopy			

## Prevalence of CD in Associated Clinical Conditions—Low Bone Mineral Density (BMD)

Evidence Table 9: Prevalence of CD in patients with low BMD

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Gonzalez, 2002 Argentina  Duplicate: no	<p><b>Publication type:</b> journal</p> <p><b>Study design:</b> cross-sectional prevalence</p> <p><b>Test/methodology:</b> IgA and IgG-AGA, ELISA; cut-off levels: for IgA, 15 AU/mL; for IgG, 20 AU/mL; IgA-EMA, IF on ME; positive if fluorescence at 1:5 dilution; 1st level of screening: measuring of IgA and IgG-AGA; 2nd level of screening: measuring of IgA and IgG-EMA and total serum IgA if AGA positive; 3rd level of screening: biopsy in EMA positives</p> <p><b>Biopsy criteria/description:</b> endoscopic biopsy; CD was diagnosed when mucosa showed VA, crypt hyperplasia and intraepithelial lymphocytic infiltration (&gt;30%)</p> <p><b>Confirmatory test:</b> EMA; biopsy</p> <p><b>Checked IgA def.</b> yes; 2 controls were found to have very low IgA level</p>	<p><b>Ethnicity:</b> n/a</p> <p><b>Patient type/# screened:</b> 127 consecutive postmenopausal pts with verified osteoporosis screened for CD; 747 controls screened for CD taken from a population-based study aiming to determine the prevalence of CD in Argentina</p> <p><b>Demographics:</b> n=127 postmenopausal pts with osteoporosis; age: mean 68 y, range 50-82 y; n=747 controls; age: mean 29 y, range 16-79 y</p> <p><b>Incidence:</b> <u>Time period:</u> prevalence of CD in 127 postmenopausal pts with osteoporosis was 1/127, or 7.9x1000 (95% CI 0.2-43.1); as for test positivity: AGA was found in 8 of 127 pts on level 1; 1 of these 8 pts was EMA-positive on the 2nd level and eligible for biopsy which established a diagnosis of CD</p> <p><u>Control popn:</u> estimated prevalence of CD in control women population was 6/747, or 8x1000 (95% CI 3.3-18.3); as for test positivity: AGA was found in 96 of 747 (12.8%) pts on level 1; 4 pts were EMA-positive and 2 other pts had very low serum IgA on the 2nd level and all 6 were eligible for biopsy which established a diagnosis of CD in all cases</p>	Prevalence of CD in 127 postmenopausal pts with osteoporosis was 1/127, or 7.9x1000 (95% CI 0.2-43.1); as for test positivity: AGA was found in 8 of 127 pts on level 1; 1 of these 8 pts was EMA-positive on the 2nd level and eligible for biopsy which established a diagnosis of CD			Prevalence of CD in postmenopausal osteoporotic women was similar to that of the general population

**Evidence Table 9 (cont'd): Prevalence of CD in patients with low BMD**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Lindh, 1992 Sweden  Duplicate: no	<p><b>Publication type:</b> journal</p> <p><b>Study design:</b> cross-sectional prevalence</p> <p><b>Test/methodology:</b> IgA-AGA, micro ELISA method; cut-off point was selected to be a 2 SD above the mean in a healthy population of blood donors</p> <p><b>Biopsy criteria/description:</b> endoscopic biopsy; methodology and criteria of CD diagnosis n/r</p> <p><b>Confirmatory test:</b> endoscopic biopsy</p> <p><b>Checked IgA def.</b> n/r</p>	<p><b>Ethnicity:</b> n/a</p> <p><b>Patient type/# screened:</b> 92 consecutive pts with idiopathic osteoporosis screened for CD</p> <p><b>Demographics:</b> n=92 consecutive pts with idiopathic osteoporosis screened for CD; 91% F (mean age 66±12 y)/ 9% M (mean age 50±12 y);</p> <p><b>Incidence:</b> prevalence of CD was 3% (3/92); IgA-AGA was positive in 11 of 92 pts and biopsy was performed in 6 pts</p>	Prevalence of CD was 3% (3/92)			

**Evidence Table 9 (cont'd): Prevalence of CD in patients with low BMD**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Mather, 2001 Canada  Duplicate: no	<p><b>Publication type:</b> journal</p> <p><b>Study design:</b> cross-sectional prevalence</p> <p><b>Test/methodology:</b> IgA-EMA, IF of ME</p> <p><b>Biopsy criteria/description:</b> increased number of IELs with associated subtotal or total VA</p> <p><b>Confirmatory test:</b> biopsy</p> <p><b>Checked IgA def.</b> yes</p>	<p><b>Ethnicity:</b> n/a</p> <p><b>Patient type/# screened:</b> 96 consecutive idiopathic low BMD pts</p> <p><b>Demographics:</b> n=96: mean age 57 y; range 18-86 y; 81.3% (78) F, 18.7% M (18)</p> <p><b>Incidence:</b> n/a</p>	7 (7.3%) of 96 pts were EMA pos at titers of ≥1:10; all biopsies were negative; prevalence of 0%			

**Evidence Table 9 (cont'd): Prevalence of CD in patients with low BMD**

Author, Year, Location	Study Design	Patient Characteristics	Prevalence			Comments
			Group 1	Group 2	Group 3	
Nuti, 2001 Italy  Duplicate: no	<p><b>Publication type:</b> journal</p> <p><b>Study design:</b> cross-sectional prevalence</p> <p><b>Test/methodology:</b> IgA-AGA, ELISA cut-off level of 10 U/mL-1</p> <p><b>Biopsy criteria/description:</b> intestinal biopsy criteria n/r</p> <p><b>Confirmatory test:</b> TG-ab-ELISA with cut-off 22 AU; intestinal biopsy</p> <p><b>Checked IgA def.</b> no</p>	<p><b>Ethnicity:</b> n/a</p> <p><b>Patient type/# screened:</b> 255 females with osteoporosis</p> <p><b>Demographics:</b> mean age 66.6 y, range 36- 65 y</p> <p><b>Incidence:</b> n/a</p>	53/255 pos IgG-AGA; 24/53 pos TG-ab (9.4%); intestinal biopsy in 10/24 resulted in 6 confirmed CDs			

## Celiac 3: Risk of Lymphoma in CD

**Evidence Table 10: Risk of lymphoma in patients with CD**

Author, year, country	Methods	Participants	Outcomes	Measures of risk (lymphoma)	Measures of risk (mortality)
<p>Asking, 2002, Sweden</p> <p>Other reports of same cohort: Peters et al., Arch Int Med 2003;163:1566</p>	<p>Retrospective Cohort Study</p> <p>Study Dates: 1964-1994</p> <p><b>Group selection</b></p> <p><b>Pts with CD:</b> All individuals discharged at least once with a Dx CD (ICD 7-9)</p> <p><b>Controls:</b> (5-y)Age/sex and (1 y) calendar period matched cancer incidence rate and mortality rate for the entire Swedish population</p> <p><b>Institution:</b> All hospitals in Sweden (Swedish input register)</p> <p><b>Ascertainment of outcome</b></p> <p>Cancer register, register of causes of death, population register, register of population changes. Pathology report from Cancer Registry for lymphomas Dx'ed 1990 or after</p> <p><b>Blinding</b></p> <p>n/r</p> <p><b>Follow-up</b></p> <p>See ascertainment of outcome. 3.4% excluded with incomplete/non matching ID numbers</p>	<p><b>CD pts:</b> n = 11,019</p> <p>Mean age at CD Dx: 17.4 (range 0-&gt;70)</p> <p>Mean follow-up: 9.8 y (range 0-32)</p> <p>97236 PYs</p> <p>Proportion of females: 59%</p> <p>Proportion on GFD: n/r</p> <p>% refractory CD: n/r</p> <p>Clinical presentation: symptomatic (admission to hospital)</p>	<p><b>Lymphoma</b></p> <p># lymphomas 38</p> <p>Lymphoma types: NHLs</p> <p><b>Dead patients</b></p> <p>Mean age at death: 68.6</p> <p>Time from CD Dx: n/r</p> <p><b>Death from NHL</b></p> <p>#Ls in celiacs: 33</p> <p># expected lymphomas: 2.9</p> <p><b>Death from all causes</b></p> <p># deaths 828</p> <p># expected 419.3</p> <p><b>Exclusions</b></p> <p>Were lymphomas occurring prior to CD Dx included? NO</p> <p>Were lymphomas occurring within 12 months of CD Dx included? NO</p> <p>Were incidental lymphomas found at autopsy included? NO</p>	<p><b>SIR NHL</b> 6.3</p> <p>95% CI 4.2-125</p> <p><b>SIR 1-4 y Dx:</b> 9.7</p> <p>95% CI 6.3-14</p> <p><b>SIR &gt;5 y Dx:</b> 3.8</p> <p>95% CI 2.2-6</p> <p><b>SIR age 0-59:</b> 6.0</p> <p>95% CI 3.7-9.5</p> <p><b>SIR age &gt;60:</b> 5.8</p> <p>95% CI 3.7-8.5</p> <p><b>SIR childhood Dx (age 0-19):</b> 1.9</p> <p>95% CI 0.4-5.5</p> <p><b>SIR adult Dx (age 20-59):</b> 7.7</p> <p>95% CI 4.9-12</p> <p><b>SIR late Dx (age &gt;60):</b> 6.3</p> <p>95% CI 3.8-9.8</p> <p>SIR 1970-79: 12 (3.8-28)</p> <p>SIR 1980-89: 8.5 (5.5-13)</p> <p>SIR 1990-95: 3.4 (1.9-5.7)</p> <p>P (linear trend) 1964-95 0.025</p>	<p><b>SMR all causes</b> 2</p> <p>95% CI 1.8-2.1</p> <p><b>SMR 1-4 y Dx:</b> 2.2 (1.9-2.4)</p> <p><b>SMR 5-9 y Dx:</b> 2.0 (1.8-2.2)</p> <p><b>SMR &gt;10 y Dx:</b> 1.7 (1.5-2.0)</p> <p>P(trend) 0.12</p> <p><b>SMR from NHL</b></p> <p>11.4 (7.8-16)</p>

**Evidence Table 10 (cont'd): Risk of lymphoma in patients with CD**

Author, year, country	Methods	Participants	Outcomes	Measures of risk (lymphoma)	Measures of risk (mortality)
<p>Collin, 1996, Finland</p> <p>Other reports of same cohort: Collin et al. Gut 1994;35:1215</p>	<p>Prospective cohort study (Collin et al. Gut 1996;38:528)</p> <p>Study dates: 1970-1993</p> <p>Case-control study (Collin et al. Gut 1994;35:1215)</p> <p><b>Group selection</b></p> <p><u>Pts with CD</u>: All consecutive biopsy-proven CD (ESPGAN criteria)</p> <p><u>Controls</u>: age/sex matched for Finnish population (database not stated)</p> <p><u>Controls(2)</u>: age/sex and year matched outputs for upper endoscopy</p> <p><b>Institution</b>: single tertiary care institution</p> <p><b>Ascertainment of outcome</b>: Finnish cancer registry, Statistics Finland</p> <p><b>Blinding</b>: n/r</p> <p><b>Follow-up</b>: See ascertainment of outcome. 290 pts available for biopsy 6-12 mos post Dx</p>	<p><b>CD pts</b>: n = 383</p> <p>Mean age at CD Dx: 41.8 (range 16-78)</p> <p>Mean follow-up: 8.1 y 3107 PYs</p> <p>Mean follow-up (case-control) 3.1 (range 0.5-11)</p> <p>Proportion of females: 73%</p> <p>Proportion on GFD: Strict GFD 75% Partial GFD 8% Normal diet 6% Unknown 11%</p> <p>Compliance monitoring: control bx and dietary assessment 6-12 mos after Dx</p> <p>Clinical presentation: 82% symptomatic 18% serology Dx</p>	<p><b>Lymphoma</b></p> <p># lymphomas 1</p> <p>Lymphoma types: # expected lymphomas 0.4</p> <p><b>Death from all causes</b></p> <p># deaths: 31 (8.1%) # expected: see graph p1217 of Collin et al. Gut 1994;35:1215</p> <p><b>Exclusions</b></p> <p>Were lymphomas occurring prior to CD Dx? NO</p> <p>Were lymphomas occurring within 12 months of CD Dx? YES</p> <p>Were incidental lymphomas found at autopsy included? PROBABLY NOT</p>	<p><b>SIR NH</b> 2.66 95% CI 0.07-14.8</p>	<p>10 and 15 y survival rates of pts with CD did not differ significantly from the rates seen in general population</p>

**Evidence Table 10 (cont'd): Risk of lymphoma in patients with CD**

Author, year, country	Methods	Participants	Outcomes	Measures of risk (lymphoma)	Measures of risk (mortality)
<p>Corrao, 2001 Italy</p> <p>Other reports of same cohort: none</p>	<p>Prospective Cohort Study Dates: 1962-1994</p> <p><b>Group selection</b> Pts with CD: All consecutive biopsy-proven CD (ESPGAN criteria) <u>Controls:</u> (5-y) age/sex and calendar year matched national life tables and regional mortality rates <b>Institution:</b> 11 GI units throughout Italy selected for quality of record keeping; mostly tertiary</p> <p><b>Ascertainment of outcome</b> phone interview (pts, relatives); death certificates, Italian National Institute of Statistics</p> <p><b>Blinding</b> n/r</p> <p><b>Follow-up</b> see ascertainment of outcome. 8 pts or their relative not tracked down; excluded. 50 pts lost to follow-up</p>	<p><b>CD pts:</b> n = 1,072</p> <p>Mean age at CD Dx: 35.7 (range 18-&gt;50) Median Dx delay 17 months</p> <p>Mean follow-up: 6.0 y 6444 PYs</p> <p>Proportion of females: 76% Proportion on GFD: 59%   Strict GFD: 59%   Not likely: 15%   Unknown: 27%</p> <p>Compliance monitoring: control biopsy and phone interview 1999</p> <p>% refractory CD: none</p> <p>Clinical presentation: 55% symptomatic 39% mild symptoms 6% serology Dx</p>	<p><b>Death from NHL</b> # lymphomas: 16 lymphoma types: # expected lymphomas 0.2</p> <p><b>Death from all causes</b> # deaths 53 # expected 25.9</p> <p><b>Exclusions</b> Were lymphomas occurring prior to CD Dx included? NO Were lymphomas occurring within 12 months of CD Dx included? YES Were incidental lymphomas found at autopsy included? PROBABLY NOT</p>	<p><b>SIR NHL</b></p>	<p><b>SMR from NHL:</b> 69.3 95% CI 40.7-112.6</p> <p><b>SMR all causes:</b> 2.0 95% CI 1.5-2.7</p> <p>SMR 0-3 y Dx: 0.98 (0.97-0.98) SMR &gt;3 y Dx: 0.98 (0.96-0.99)</p> <p>SMR age 18-29 at Dx: 2.5 (0.5-7.3) SMR age 30-49 at Dx: 2.4 (1.3-4.0) SMR age &gt;50 at Dx: 1.9 (1.3-2.6)</p> <p>SMR 1962-74: 3.2 (1.4-6.3) SMR 1975-84: 1.8 (1.0-3.1) SMR &gt;1985: 2.0 (1.3-2.8)</p> <p>SMR Dx delay &lt;1 y: 1.5 (0.9-2.3) SMR Dx delay 1-10 y: 2.6 (1.6-4.1) SMR Dx delay &gt;10 y: 3.8 (2.2-6.4)</p> <p>SMR symptoms: 2.5(1.8-3.4) SMR mild symptoms: 1.1 (0.5-2.2) SMR asymptomatic: 1.2 (0.1-7.0)</p> <p>SMR GFD: 0.5 (0.2-1.1) SMR unlikely: 6.0 (4.0-8.8) SMR uncertain: 2.0 (1.2-3.0)</p>

**Evidence Table 10 (cont'd): Risk of lymphoma in patients with CD**

Author, year, country	Methods	Participants	Outcomes	Measures of risk (lymphoma)	Measures of risk (mortality)
<p>Cottone, 1999, Sicily</p> <p>Other reports of same cohort: none</p>	<p>Retrospective cohort study Study dates: 1980-1997</p> <p><b>Group selection</b> CD pts: All biopsy-proven CD <b>Controls:</b> Age and sex-matched reported mortality from same period and region; cancer registry of the city of Ragusa in Sicily 1983-1987</p> <p><b>Institution:</b> Single institution; referral basis for all of Sicily</p> <p><b>Ascertainment of outcome</b> Hospital medical records were reviewed; pathology specimen reviewed</p> <p><b>Blinding</b> n/r</p> <p><b>Follow up</b> 5% incomplete records</p>	<p><b>CD pts:</b> n = 228</p> <p>Mean age at CD Dx: 34.7 adult Dx: 98% Range of age: n/r</p> <p>Mean follow-up: 73 mos (range 1-204) #PYs: n/r</p> <p>Proportion of females: 76% Proportion on GFD: 100% Compliance monitoring: serial EMA</p> <p>% refractory CD: n/r</p> <p>Clinical presentation: Anemia 60% Malabsorbtion 20% Other 10% Asymptomatic 10% % inputs: 29%</p> <p>Marsh grade: n/r</p>	<p><b>Lymphoma</b> #NHLs in celiacs: 7 Lymphoma types: ETCL (4), B-cell (2), other NHL(1) # expected lymphomas: 1.824 % silent: n/r % Dx'ed during childhood : 0</p> <p><b>Lymphoma patients</b> Mean age: 59.4 Time from CD Dx: 78 mos % compliant to diet: 100 incidence NHL: 3% expected incidence: 0.8</p> <p><b>Death from lymphoma</b> # death from lymphoma in celiacs: 5 # expected death from lymphomas: n/r</p> <p><b>Death from all causes</b> # death CD: 12 # expected deaths: 3.12 # deaths within 4 y of Dx: 8 # expected: 1.48</p> <p><b>Exclusions</b> Were lymphomas occurring prior to Dx of CD included? NO Were lymphomas occurring within 6 months of CD Dx included? NO Were incidental lymphomas found at autopsy included? No such cases</p>	<p>SIR NHL <b>3.75</b> P&lt;0.01</p>	<p><b>SMR from NHL</b> n/r <b>SMR all causes 3.8</b> 95% CI 1.9-6.7 <b>SMR 4 y from: 5.8</b> <b>95% CI 2.5-11.5</b></p>

**Evidence Table 10 (cont'd): Risk of lymphoma in patients with CD**

Author, year, country	Methods	Participants	Outcomes	Measures of risk (lymphoma)	Measures of risk (mortality)
<p>Delco, 1999 US</p> <p>Other reports of same cohort: none</p>	<p>Case-control study Study Dates: 1986-1995</p> <p><b>Group selection</b> Pts with CD: all consecutive pts discharged with CD Dx (ICD 579.0) <u>Controls</u>: 5 randomly selected controls from same annual data file per case <b>Institution</b>: All US VA hospitals <b>Ascertainment of outcome</b> Pt Treatment File of the VA. Validity of records checked with 7 pt files <b>Blinding</b> n/r <b>Follow-up</b> See ascertainment of outcome.</p>	<p><b>CD pts</b>: n = 458 <b>Controls</b>: n=2692</p> <p>Mean age: celiacs: 63.8 +/- 12.4 controls: 59.7 +/- 14.8 p&lt; 0.0001</p> <p>Proportion of females: celiacs 4% controls 2% p=0.105</p> <p>Race: celiacs: 93% whites controls: 74% p&lt;0.0001</p> <p>Proportion on GFD: n/r</p> <p>Compliance monitoring: n/a</p> <p>% refractory celiac: n/r</p> <p>Clinical presentation: 100% symptomatic (all discharged Dx)</p>	<p><b>Lymphoma</b> # lymphomas n/r Lymphoma types: n/r # expected lymphomas n/r <b>Death from all causes</b> # deaths: n/r <b>Exclusions</b> Were lymphomas occurring prior to CD Dx included? NO Were lymphomas occurring within 12 mos of CD Dx included? LIKELY Were incidental lymphomas found at autopsy included? LIKELY Pts with repeated admission within 1 y were excluded</p>	<p><b>OR NHL</b> 4.53 95% CI 2.01-10.23</p>	

**Evidence Table 10 (cont'd): Risk of lymphoma in patients with CD**

Author, year, country	Methods	Participants	Outcomes	Measures of risk (lymphoma)	Measures of risk (mortality)
<p>Green, 2003, US (New York)</p> <p>Other reports of same cohort: none</p>	<p>Prospective Cohort Study Dates: 1981-2000</p> <p><b>Group selection</b> Pts with CD: All consecutive biopsy-proven CD (ESPGAN criteria)</p> <p><b>Controls:</b> (5-y) age/sex and calendar year matched site-specific incidence rates from the National Cancer Institute's Surveillance, Epidemiology and End Results Program for whites</p> <p><b>Institution:</b> single tertiary care institution</p> <p><b>Ascertainment of outcome</b> pt interview, review of pathology records</p> <p><b>Blinding</b> n/r</p> <p><b>Follow-up</b> pts not followed-up excluded; # n/r</p>	<p><b>CD pts:</b> n = 381</p> <p>Mean age at CD Dx: 44 +/- 18 y Duration of CD symptoms prior to Dx: 5y +/- 8</p> <p>Mean follow-up: 6 +/- 11 y 1977 PYs</p> <p>Proportion of females: 64% Proportion on GFD: 100% of NHLs after Dx</p> <p>Compliance monitoring: clinical interview, yearly AGA and EMA after 1993</p> <p>% refractory celiac: n/r</p> <p>Clinical presentation: n/r</p>	<p><b>NHL 1 mos after CD Dx</b> # lymphomas 5 # expected lymphomas n/r</p> <p>Age at Dx cancer 62+/- 8 y Mean duration from celiac Dx 5+/- 4 y Mean follow-up 16+/- 17 y</p> <p><b>NHL before/1 mos after CD Dx*</b> # NHLs: 4 # expected: 0.7</p> <p><b>NHL any time before/after Dx celiac*</b> # NHLs: 9 # expected: 1</p> <p>Lymphoma types: B-cell(3), T-cell (4 – ETCL 3), large cell (2)</p> <p><b>Exclusions</b> Were lymphomas occurring prior to Dx of celiac included? YES* Were lymphomas occurring within 1 months of celiac Dx included? YES* Were incidental lymphomas found at autopsy included? n/r</p> <p>*separate analysis</p>	<p><b>SIR NHL</b> 6.2 95% CI 2.9-14</p> <p><b>SIR NHL before/1 mos after Dx celiac:*</b> 5.3 (2.3-13) incidence NHL 135/100 000 PYs expected 14.8/100 000 PYs</p> <p><b>SIR NHL any time before/after Dx celiac:*</b> 9.1 (4.7-13)</p>	

**Evidence Table 10 (cont'd): Risk of lymphoma in patients with CD**

Author, year, country	Methods	Participants	Outcomes	Measures of risk
<p>Holmes, 1989, England</p> <p>Other reports of same cohort: Holmes et al. Gut 1976;17:612; Harris et al, Am J Med 1967;42:899</p>	<p>Prospective cohort study Study Dates: 1941-1985</p> <p><b>Group selection</b> <u>Pts with CD</u>: All biopsy-proven CD <u>Controls</u>: Age/sex matched incidence for 2 calendar periods standardized to ICD 8,200 and 202, in West Midlands region</p> <p><b>Institution</b>: Single institution</p> <p><b>Ascertainment of outcome</b> Direct pt interview, case notes, GP, Birmingham and West Midlands cancer registry, autopsy results, death certificates, pathology specimen reviewed</p> <p><b>Blinding</b> n/r</p> <p><b>Follow-up</b> Use of the family Practitioner Committee records and National Health Service Central Register at Southport; 2% drop outs</p>	<p><b>CD pts</b>: n = 210</p> <p>Mean age at CD Dx: n/r Adult Dx: 80%* (*from Harris et al, Am J Med 1967;42:899) Mean follow-up: 17.4 PYs for men, 19.4 PYs for women; minimum 13 y</p> <p>Proportion of females: 55.2% Proportion on GFD: 51% strict GFD 51% reduced gluten 27% normal diet 22%</p> <p>Compliance monitoring: direct interview; repeat biopsy in 86 pts</p> <p>% refractory CD: 17 poor response to GFD</p> <p>Clinical presentation: n/r</p>	<p><b>Lymphoma</b> #NHLs in celiacs: 9 lymphoma types: n/r # expected lymphomas: 0.21</p> <p><b>Lymphoma patients</b> Mean age: n/r Time from CD Dx: n/r % compliant to diet: 2 NHL in strict GFD 7 NHL in gluten diet</p> <p><b>Death from lymphoma</b> Not calculated</p> <p><b>Death from all causes</b> Not calculated</p> <p><b>Exclusions</b> Were lymphomas occurring prior to Dx of CD included? NO Were lymphomas occurring within 12 months of CD Dx included? NO Were incidental lymphomas found at autopsy included? No such cases</p>	<p>SIR NHL <b>42.7</b> 95% CI 19.6-81.4</p> <p><b>SMR from NHL</b> n/r</p> <p><b>SMR all causes</b> Not calculated</p> <p><b>SMR 4 y from Dx</b> n/r</p> <p><b>SIR NHL</b> <b>Strict gluten-free diet 44.4</b> <b>Gluten diet 100</b></p>

**Evidence Table 10 (cont'd): Risk of lymphoma in patients with CD**

Study	Methods	Participants	Outcomes	Measures of risk
<p>Logan, 1989, Scotland</p> <p>Other reports of same cohort: Celiac 2; Logan et al.</p> <p>Gastroenterol 1986;90:334</p> <p>Celiac 2; Logan et al. BMJ (Clinical research ed) 1983;286:95</p>	<p>Prospective cohort study</p> <p>Study dates: 1979-1986</p> <p><b>Group selection</b></p> <p><u>Pts with CD</u>: All biopsy-proven CD entered in register for Edinburgh and the Lothians</p> <p><u>Controls</u>: Age/sex matched mortality for Scotland and corresponding person-years over 5 calendar periods standardized to ICD 8 200-203, in Scotland</p> <p><b>Institution</b>: All hospitals in Edinburgh and the Lothian region, postal survey of all GPs, Scottish in-pt Statistics 1961-1977, local branch of Celiac Society</p> <p><b>Ascertainment of outcome</b></p> <p>Death certificates</p> <p><b>Blinding</b></p> <p>n/r</p> <p><b>Follow-up</b></p> <p>National Health Service Central Record, death certificates, Scottish national death records.</p> <p>6% lost to follow-up</p>	<p><b>CD pts</b>: n = 653</p> <p>Mean age at CD Dx: n/r</p> <p>Mean follow-up: 13.5 y</p> <p>8823 PYs</p> <p>Proportion of females: 60%</p> <p>Proportion on GFD: n/r</p> <p>% refractory CD: n/r</p> <p>Clinical presentation: n/r</p>	<p><b>Lymphoma</b></p> <p># lymphomas: n/r</p> <p>Lymphoma types: most lymphosarcomas or reticulum-cell sarcomas, 2 Hodgkins</p> <p><b>Dead patients</b></p> <p>Mean age at death: 60.8</p> <p>Time from CD Dx: n/r</p> <p><b>Death from lymphoma</b></p> <p>#s in celiacs: 17</p> <p>#expected lymphomas: 0.55</p> <p><b>Death from all causes</b></p> <p># deaths 115</p> <p># expected 61.8</p> <p><b>Exclusions</b></p> <p>Were lymphomas occurring prior to CD Dx included? NO</p> <p>Were lymphomas occurring within 12 months of CD Dx included? YES</p> <p>Were incidental lymphomas found at autopsy included? NO</p>	<p><b>SIR NHL</b>: n/r</p> <p><b>SMR from lymphoma</b></p> <p>31 p&lt;0.001</p> <p><b>SMR(L) 0-1 y Dx</b>: 108</p> <p><b>SMR(L) 2-4 y Dx</b>: 9</p> <p><b>SMR (L) 5-49 y Dx</b>: 22</p> <p><b>SMR all causes</b> 1.9</p> <p>95% CI 1.5-2.2</p> <p><b>SMR &lt;1 y from Dx</b>: 4.1</p> <p><b>SMR 1-2 y from Dx</b>: 3.2</p> <p><b>SMR 3-4 y from Dx</b>: 2.2</p> <p><b>SMR 5-9 y from Dx</b>: 1.5</p> <p><b>SMR 10-14 y from Dx</b>: 1.5</p> <p><b>SMR childhood Dx</b>: 1.4</p> <p>95% CI 0.4-3.7</p> <p><b>SMR adult Dx</b>: 1.9</p> <p>95% CI 1.5-2.3</p> <p><b>SMR late Dx</b>:* 1.7</p> <p>95% CI 0.02-4.8</p> <p>*obvious CD symptoms during childhood</p>

**Evidence Table 10 (cont'd): Risk of lymphoma in patients with CD**

Author, year, country	Methods	Participants	Outcomes	Measures of risk (lymphoma)	Measures of risk (mortality)
<p>Selby, 1979 Australia</p> <p>Other reports of same cohort: none</p>	<p>Retrospective cohort study dates: 1959-1978</p> <p><b>Group selection</b> Pts with CD: All consecutive biopsy-proven CD (ESPGAN criteria)</p> <p><b>Controls:</b> ?age/sex and period matched incidence New South Wales Central cancer Registry</p> <p><b>Institution:</b> Single tertiary care institution</p> <p><b>Ascertainment of outcome</b> direct call or via medical officer</p> <p><b>Blinding</b> n/r</p> <p><b>Follow-up</b> Direct call or via medical officer. 21% lost to follow-up</p>	<p><b>CD pts:</b> n = 93</p> <p>Mean age at diagnosis celiac: 40 (range 14-70) Duration of Sx of celiac prior to Dx: 3yrs (range 2 wks to 26 y)</p> <p>Mean follow-up: 6 y (max 9 y)</p> <p>Proportion of females: 67%</p> <p>Proportion on GFD: 100% of NHLs after Dx</p> <p>Compliance monitoring: n/r</p> <p>% refractory CD: none of the lymphoma pts</p> <p>Clinical presentation: 100% malabsorption: 18% malabsorption during childhood</p>	<p><b>Lymphomas</b> # lymphomas 4 # expected lymphomas 0.081</p> <p>Age at cancer Dx: 47.5 Mean duration from CD symptoms: 11 y (range 2-26 y) Mean follow-up: n/r</p> <p>Lymphoma types: ETCL (2), lymphosarcoma (1), histiocytic medullary reticulosis (1)</p> <p><b>Exclusions</b> Were lymphomas occurring prior to Dx of celiac included? NO Were lymphomas occurring concomitantly with celiac Dx included? NO Were incidental lymphomas found at autopsy included? n/r</p>	<p><b>SIR NHL 4.94</b> p&lt; 0.0005</p> <p>symptom duration (cancer vs none): not significant age Dx (cancer vs none): not significant</p>	

## Celiac 4: Consequences of Testing for CD

**Evidence Table 11: Consequences of testing for CD**

Study, Year Country	Methods	Participants	Outcomes	Results	Limitations
Addolorato, 2001 Italy	<p>Study type - 1996-1998</p> <p>Population-group selection Celiacs – newly diagnosed CD selected from outpatient clinic of 234 adult CD</p> <p>Controls - healthy asymptomatic controls - matched for age, sex and SES</p> <p>Loss to follow-up -8 Setting - Tertiary</p>	<p>Celiac - n=43 enrolled Controls - n=59</p> <p>Proportion F – 60%</p> <p>Mean follow-up - 1 y</p> <p>Mean age: 29.8 ± 7.4</p>	<p>Before/after GFD</p> <p>Anxiety State and Trait Anxiety Inventory test</p> <p>Depression SDS self rating depression scale</p>	<p>Before – CD 71.4% showed high levels of state anxiety, 25.7% showed anxiety as a trait and 57.1% positive for depression compared to 23.7%, 15.2% and 9.6% of controls</p> <p>Post GFD – 25.7% still affected by state anxiety, 17% trait anxiety, and 45.7% depressed</p> <p>Significant decrease in state anxiety (p&lt;0.001) No significant changes in trait anxiety or depression - anxiety in CD predominantly reactive</p>	<p>Small sample, loss to 8 pts to follow-up Relatively short follow-up</p>

**Evidence Table 11 (cont'd): Consequences of testing for CD**

<b>Author, Year Country</b>	<b>Methods</b>	<b>Participants</b>	<b>Outcomes</b>	<b>Results</b>	<b>Limitations</b>
<p>Amin, 2002 UK</p>	<p>Study type - case controlled longitudinal 1994-1998</p> <p>Population-group selection Celiacs – 11 pts, EMA + and biopsy diagnosed CD out of 230 pts screened from diabetic clinic</p> <p>Controls – 22 matched for age, sex and duration of diabetes, with negative serology</p> <p>Institution – diabetic clinic – tertiary care hospital</p>	<p>Celiacs: n=11 (6 had repeat small bowel Bx on GFD)</p> <p>Controls: n=22 Age: 8.1 (1.2-16.1) cases, 7.4 (1.3-14.8) controls</p> <p>Proportion of females: 54.5% Duration of type 1 diabetes: 4.2 y</p> <p>Mean follow-up - 4 y</p> <p>BMISDS -1.2 ± 0.1 (SEM) vs -0.1 ± 0.1 WtSDS - 0.7 vs 0.5</p> <p>HbgA1c – 8.3 cases 9.8 controls Insulin units – 0.8</p>	<p>BMI</p> <p>Hgba1c</p> <p>Insulin regimens</p>	<p>Cases: 1.1 ± 0.1 Controls: 1 ± 0.1</p> <p>Cases: 8.3 ± 0.2 Controls: 10 ± 0.2</p> <p>Insulin regimens increased but did not differ significantly between Insulin units 1.0 All reverted to antibody negative</p>	<p>Small sample Selection of controls</p>

**Evidence Table 11 (cont'd): Consequences of testing for CD**

Study, Year Country	Methods	Participants	Outcomes	Results	Results after treatment
Annibale, 2001 Italy	Study type - prospective 1994- May 1997  Population-group selection Celiacs- 190 consecutive adults with iron deficiency anemia, 26 pts were diagnosed with CD after duodenal biopsy	Celiac n= 26 of 190 pts with IDA  Proportion F - 92% Mean age - 31.3  Mean follow-up – 24 mos  77% had total VA, 23% had subtotal atrophy  11 did not have symptoms apart from anemia 42%  BMI	Iron Deficiency (Hgb<14 for men and 12 for women, MCV <80, low serum iron and low serum ferritin  Ferritin  Nutritional parameters  Repeat endoscopy – 6 mos	6 mos 77.8% recovered IDA, but only 5 of 18 (27.8%) developed normal ferritin levels  12 mos – 94.4% recovered from anemia and 50% from iron deficiency – all pts had normal RDW  24 mos, 55% recovered from iron deficiency	Recovery from IDA occurs within the initial 6-12 mos but only 50% recover from iron deficiency  In subgroup of pts (n=7) who had repeat biopsies at 6 and 12 mos – inverse correlation between histological grade and increase in Hgb

**Evidence Table 11 (cont'd): Consequences of testing for CD**

Author, Year Country	Methods	Participants	Outcomes	Results	Limitations
Arato, 2002 Hungary	Study type – longitudinal – own controls  Population-group selection Celiacs selected from 205 children with type 1 diabetes randomly selected, screened with EMA and then confirmed with biopsy  Controls – no controls	Celiacs: n=17  % Females -59%  Mean follow-up – 3 mos  BMI 14.2 vs 16.3 for controls  11 had silent CD, 6 had mild GI symptoms	BMI  HbA1c  Insulin requirements	Before                      After GFD  16.8 <0.05  7.82 NS  0.48                      0.64 <0.05	Short follow-up small sample size No controls

**Evidence Table 11 (cont'd): Consequences of testing for CD**

<b>Author, Year Country</b>	<b>Methods</b>	<b>Participants</b>	<b>Outcomes</b>	<b>Results</b>	<b>Limitations</b>
Bardella, 1985 Italy	Study type - prospective  Population-group selection Celiacs- adults with biopsy confirmed disease (Grade II or IV – Scott/Losowsky) and malabsorption  Controls ---none	Celiacs - n=26  Proportion F - 81%  Mean age - 42.2  Mean follow-up– 55.4 mos on GFD (range 13-137 mos)	Clinical Symptoms  CBC, biochemical parameters  Repeat biopsy (17/26)	8 pts good health and normal blood tests and 18 had some clinical or biochemical abnormalities, 4 pts had recurrent abd pain, meteorism and diarrhea, 2 isolated episodes of diarrhea and 5 meteorism alone present, 11 pts had one more of anemia, moderate abnormal of calcium, alkaline phosphatase, phosphorus  13 showed grade II, and 4 grade III – all improved by 1 or 2 grades but none returned to normal	

**Evidence Table 11 (cont'd): Consequences of testing for CD**

<b>Author, Year Country</b>	<b>Methods</b>	<b>Participants</b>	<b>Outcomes</b>	<b>Results</b>	<b>Limitations</b>
Bardella, 2000 Italy	Study type - case control 1962-1994  Population-group selection Celiacs not clear how selected 33.4% asymptomatic  Controls – 2/pt matched for age and sex	Cases 71 out of 212 43 diagnosed as children, 28 as adults  Control - n=142  Proportion F - 72%	Weight  BMI  Fat mass  Lean mass	Lower than controls 55.5 vs 58.7 kg (p=0.004)  20.9 vs 22.4, p=0.03  22.9 vs 27.5, p<0.05  38.8 vs 40.5 (p<0.03)	

**Evidence Table 11 (cont'd): Consequences of testing for CD**

Author, Year Country	Methods	Participants	Outcomes	Results	Limitations															
Barera, 2000 Italy	<p>Study type - case control prospective</p> <p>Population-group selection Celiacs – biopsy confirmed CD, 4 classic symptoms, remainder atypical</p> <p>Controls - age and sex matched healthy controls</p>	<p>Celiac cases - n=29</p> <p>Control - n=29</p> <p>Age - 9.54 + 3.42</p> <p>Proportion F: 51.7%</p> <p>Mean follow-up – 1.20 ± 0.15</p> <p>Compliance – EMA ab</p>	<p>Body composition - DEXA</p> <p>Weight (kg)</p> <p>Height (cm)</p> <p>BMI (kg/m<sup>2</sup>)</p> <p>Lean Mass</p>	<p>At baseline, weight, fat mass, BMD, lean mass of limbs all lower in the pts versus controls, after 1 y no significant differences in body composition between pts and controls</p> <table border="1"> <thead> <tr> <th></th> <th>Untreated</th> <th>Treated</th> </tr> </thead> <tbody> <tr> <td></td> <td>30.3 + 11.5kg</td> <td>34.7 + 12.3</td> </tr> <tr> <td></td> <td>134.9 + 19</td> <td>140.9 + 18.4</td> </tr> <tr> <td></td> <td>16.7 +4.5</td> <td>17.3 + 3.1</td> </tr> <tr> <td></td> <td>166.8</td> <td>179.9 +42</td> </tr> </tbody> </table>		Untreated	Treated		30.3 + 11.5kg	34.7 + 12.3		134.9 + 19	140.9 + 18.4		16.7 +4.5	17.3 + 3.1		166.8	179.9 +42	
	Untreated	Treated																		
	30.3 + 11.5kg	34.7 + 12.3																		
	134.9 + 19	140.9 + 18.4																		
	16.7 +4.5	17.3 + 3.1																		
	166.8	179.9 +42																		

**Evidence Table 11 (cont'd): Consequences of testing for CD**

Author, Year Country	Methods	Participants	Outcomes	Results	Limitations
Boersma, Netherlands 2002	<p>Study type - 1994-1995 prospective study</p> <p>Population-group selection Celiacs-children with newly diagnosed celiac (symptoms and biopsy confirmed)</p> <p>CD patients acted as own controls</p>	<p>Celiacs - 28</p> <p>Proportion F - 68%</p> <p>Mean follow-up - 3 y</p> <p>BMI</p>	<p>BMI</p> <p>BMI-SDS</p> <p>Height SDS</p>	<p>BMI - SDS for CD improved significantly after a GFD over 1<sup>st</sup> half year. (P&lt;0.001)</p> <p>Height for SDS for CD showed a continuous significant increment over the first 3 y of GFD (p&lt;0.001)</p>	<p>With institution of GFD also noted increased sensitivity to GH, and levels of IGF-1, IGF-2, and IGFBP-3 rise</p>

**Evidence Table 11 (cont'd): Consequences of testing for CD**

Study, Year Country	Methods	Participants	Outcomes	Results	Risk estimates
Ciacci, 1996 Italy	<p>Study type - case control Before after</p> <p>Population-group selection Celiacs Untreated CD had a least one pregnancy when symptoms leading to diagnostic workup for CD were present Controls (treated) had at least one pregnancy after 1 y of GFD</p> <p>Setting- Tertiary clinic</p>	<p>Celiac - n=94 Controls - n= 31</p> <p>12 separate women acted as own control for before after study to assess impact of the GFD (not included in other analysis).</p> <p>Mean age at diagnosis of untreated older than treated (37.3 vs 22.4) Mean follow-up of treated celiacs <math>9.2 \pm 1.4</math> Mean weight of treated 50.6 vs 50 Mean BMI 20.1 vs 19.4</p> <p>Clinical symptoms of untreated group 33% did not have diarrhea, 24.5% did not have anemia</p>	<p>Number of pregnancies/woman</p> <p>Number of abortions/woman</p> <p>Abortion to pregnancy ratio</p> <p>Low birth weight baby to pregnancy ratio</p>	<p>2.72 in untreated vs 1.36 in controls</p> <p><math>0.489 \pm 0.08</math> untreated vs <math>0.032 \pm 0.032</math> treated (17.8% vs 2.4%)</p> <p><math>0.153 \pm 0.027</math> vs <math>0.024 \pm 0.024</math></p> <p><math>0.126 \pm 0.037</math> vs <math>0.024 \pm 0.024</math> (prevalence 12.7% vs 2.4% in treated)</p> <p>*controls not age matched – cases significantly older</p>	<p>RR of abortion 8.9 (95% CI 1.19, 31.9)</p> <p>RR of low birth weight baby 5.84 (95% CI 1.07, 31.9) 12.7% vs 2.4%</p> <p>Did not have external control group or control for confounders.</p>

**Evidence Table 11 (cont'd): Consequences of testing for CD**

<b>Author, Year Country</b>	<b>Methods</b>	<b>Participants</b>	<b>Outcomes</b>	<b>Results</b>	<b>Limitations</b>
Fabiani, 1996 Italy	Study type - longitudinal  Population-group selection Celiacs – biopsy proven CD from screening of adolescents (n = 6,315)  Controls - none  Loss to follow-up – 5	Celiacs – n=28 adolescents (age 11-14)  Proportion F -74%  Mean F/U 23 ± 7 mos	Compliance	52% on strict GFD  47% partial adherence  weight gain 12/23 (52%), height gain (11/25)	

**Evidence Table 11 (cont'd): Consequences of testing for CD**

<b>Author, Year Country</b>	<b>Methods</b>	<b>Participants</b>	<b>Outcomes</b>	<b>Results</b>	<b>Limitations</b>
Fabiani, 2000 Italy	Study Type – case control 1992-1994  Population-group selection Celiacs – selected from screening program for CD ages 11-14, Group A and second group B from pts diagnosed due to typical symptoms (biopsy proven ESPGAN)  Loss to follow-up: Group A 5 pts, Group B 2 pts	Celiacs Group A n = 22 pts, asymptomatic Group B n = 22 pts symptomatic  Mean follow-up – 5 y  Age at diagnosis of CD: Group A 13 y, Group B 4.3 y	Compliance – FFQ conducted by dietician  Anthropometric assessment	Adherence to treatment lower in Group A (23%) asymptomatic versus Group B (68%)  p value sig  BMI no differences between groups	*Difference in adherence could be related to age at diagnosis

**Evidence Table 11 (cont'd): Consequences of testing for CD**

Author, Year, Country	Methods	Participants	Outcomes	Measures of risk	Limitations
Fickling, 2001, UK	<p>Retrospective case-control study</p> <p><b>Group selection</b>  <u>CD pts:</u> All individuals with CD who attended gastroenterology output depart and those with CD who were member of local celiac society  <u>Controls:</u> Age/sex matched controls/ one per case selected from database of normal adults who had a bone densitometry performed with the same machine</p> <p><b>Institution:</b> District general hospital</p> <p><b>Ascertainment of outcome:</b>                      By questionnaire on fracture history with attempt to verify by case notes</p> <p><b>Blinding:</b> n/r</p> <p><b>Follow-up:</b></p>	<p><b>CD pts:</b> n=75; 15 with metabolic bone disease and CD</p> <p><b>Controls:</b> n=75</p> <p><b>Mean age of CD pts:</b> 52 y</p> <p><b>Proportion on GFD:</b> full details n/r</p> <p><b>Median duration of GFD:</b> 3.4 y</p> <p><b>Proportion of females:</b> 80%</p> <p><b>Clinical presentation:</b> n/r</p> <p><b>BMI:</b> n/r</p>	<p><b>Fractures:</b>  <u>CD pts:</u> 16/75 (21%), 10 before Dx, 6 after Dx</p> <p><u>Controls:</u> 2/74 (3%)</p> <p><b>BMD-DXA</b>                      6 pts had histomorphometry- 3 pts had osteomalacia</p>	<p>RR: 7.0 (95% CI 4.2-125)</p> <p>Increased history of past fractures in subjects with CD. (p&lt;0.001)</p> <p>No difference in BMD in those with and without fractures, but pts who had a fracture were older (56.3 vs 50.3)</p>	<p>Not population-based</p> <p>Selection bias</p> <p>No mention that CD was confirmed by biopsy</p>

**Evidence Table 11 (cont'd): Consequences of testing for CD**

<b>Author, Year Country</b>	<b>Methods</b>	<b>Participants</b>	<b>Outcomes</b>	<b>Results</b>	<b>Limitations</b>
Greco, 1997 Italy	Study type- cohort  Population- Celiac – biopsy confirmed pts (92.8%) consecutively recruited from a celiac clinic, 22 pts diagnosed on basis of immunological and clinical findings	Celiac - 306 adolescent/young adults  Cases of CD  Mean age – 15.9 (range 10-27)  Proportion F - 60.8%  Mean follow-up  BMI	Compliance – one month retrospective questionnaire	Three groups 1. Strict GFD 73%  2. Occasional relapse 15%  3. Full gluten containing 12%  Females more compliant (80% vs 64% of males)	88.4% of younger teenagers on a strict diet vs 68.8% of older patients >18 y  Avg monthly cost GFD 242,000 Italian Lire, 3 million per year  11.32 kg/month

**Evidence Table 11 (cont'd): Consequences of testing for CD**

<b>Study, Year Country</b>	<b>Methods</b>	<b>Participants</b>	<b>Outcomes</b>	<b>Results</b>	<b>Risk estimates</b>
Johnston, 1998 N. Ireland	Study type-case control Longitudinal follow-up of cases 1983-1998  Population-Group Selection- population survey Celiacs -screening detected CD of 1823 subjects with serology (n=113)- 3% also had inflammatory bowel disease  Controls – 89 age and sex matched randomly selected from survey – antibody negative  Ascertainment of outcome – death certificates	Celiac n= 89 (72 followed) – 20 biopsied and 13 untreated detected Controls 89  Proportion F – 53 %  Mean follow-up – 11.6 y	Mortality- overall and cancer  Number of deaths compared to Registrar General's reports 1983-1994	13 subjects with positive serology died, 4 with malignant disease  No increase in all-cause mortality or number of cancer-related deaths in screening detected cases of CD	Cancer death RR 0.94 (95% CI 0.3-2.4)  All deaths RR 0.92 (95% CI 0.5, 1.6)  Limitations Incomplete follow-up Response rate for biopsy (20/72 is low)

**Evidence Table 11 (cont'd): Consequences of testing for CD**

<b>Author Year Country</b>	<b>Methods</b>	<b>Participants</b>	<b>Outcomes</b>	<b>Results</b>	<b>Limitations</b>
Kemppainen, 1998 Finland	Study type - cohort Duration: 1988-1990  Population-group selection Celiacs: newly diagnosed biopsy confirmed, symptomatic, all started on GFD Partial (8), subtotal (17) and total VA (15)  Controls –none  Institution – Tertiary care Kuopio University Hospital  Follow-up – 6 pts lost to follow-up	Celiacs – 40 pts Age – 47 for men and 44 for women  Proportion F - 70% Proportion on GFD -100%  Mean follow-up: 1 y  Duration of CD symptoms – males 15.8, women 13.1  BMI 25 in men, and 24 in women	Nutritional status examined by food records, and BMI  Ferritin/biochemical values  Biopsy	BMI increased after GFD, decreased intakes of fibre, thiamine  Most of abnormal biochemical values improved, in 1 pt with subtotal atrophy – low Hgb, in pts with subtotal VA – 7 pts had low Hgb and 5 low ferritin  After GFD – VA improved in all patients 29 pts had partial VA, 2 subtotal, 3 normal villi	Baseline - serum ferritin lower in pts with total VA, also had low RBC folate, and ferritin

**Evidence Table 11 (cont'd): Consequences of testing for CD**

Study, year, location	Methods	Participants	Outcomes	Measures of risk	Limitations
<p>Moreno, 2004, Argentina</p>	<p>Case-control, cross sectional  <b>Group selection</b>            CD pts: unselected            53% classic symptoms, 36% subclinical, 11% silent by screening  <u>Controls</u>: 296 age and sex matched diagnosed with functional disorders  <b>Institution</b>: 2 different tertiary referral centres  <b>Ascertainment of fracture</b>: in-person interview</p>	<p><b>CD pts</b>: n=148 unselected CD  <b>Controls</b>: n=296 (2:1)  <b>Mean age CD pts</b>:            Classic: 44 y            Subclinical/silent: 38 y  <b>Age at diagnosis</b>:            Classic: 42 y            Subclinical/silent: 36 y  <b>BMI</b>: 22/22.1  <b>Proportion females</b>: 79 %  <b>Clinical presentation</b>:            53% classical CD; 35% subclinical, and 11% silent</p>	<p><b>Fractures</b>: classic symptoms vs subclinical overall -51pts  <b>Fractures-peripheral</b>            47% symptomatic CD vs 15% controls             20% subclinical/silent CD vs 14% controls             Mean BMD femoral neck</p>	<p>OR 3.6 (95% CI 1.7-7.5)             OR for symptomatic pts 5.2 (95% CI 2.8-9.8)             OR 1.7 (0.7-4.4)             Fractures not any greater in subclinical cases of CD vs controls             Higher for subclinical/silent cases vs classical p&lt;0.05 (T score -0.6 vs -1.5)             Pts with CD-sig more fractures in 5th/6th decade; also sig more low trauma fractures than controls</p>	<p>Choice of controls—functional disorders/cases             Fractures not verified by X-ray report</p>

Evidence Table 11 (cont'd): Consequences of testing for CD

Study, Year Country	Methods	Participants	Outcomes	Measures of risk - mortality	Measure of risk
Nielsen, 1985 Denmark	Study type - retrospective cohort Study dates 1964-82  Population-group selection Celiacs – histologic diagnosis of CD - 100  Ascertainment of outcome- Central person register, cancer registry  Tertiary hospital	Celiac pts - 98  Proportion F - 61 % Median age at diagnosis – 41 (F) and 42 (M)  Mean follow-up - 18 y  % refractory CD - 24% treated with prednisone since did not respond to GFD  Compliance – not described how assessed	Mortality	5-y survival 88%, 10-y survival 68.5% (23 deaths, 4 deaths attributed to malignancy) 8 pts developed cancer  Responders to GFD – 2.2 extra mortality factor  Non-responders to GFD - 5.8  Compliance with diet – 3.2 Non compliant – 4.5	SMR 3.4

Evidence Table 11 (cont'd): Consequences of testing for CD

Author, Year Country	Methods	Participants	Outcomes	Results	Limitations
Poddar, 2002 India	Study type – case control longitudinal Period – 09/1997 – 12/1998  Population-group selection Celiacs-104 children with clinical symptoms evaluated for celiac disease, 57 biopsy confirmed. Excluded those who did not have good response to diet Controls –Those who did not have celiac on biopsy of the initial 104	Celiacs - n= 57 Controls - n=47 Proportion F -  Mean follow-up - 19.6 ± 8 mos  17% poor compliance	Height  Weight gain  Symptoms	Height 88 ± 5% of expected vs 94 ± 5% of expected baseline and follow-up (p=ns)  66% ± 14 vs 86% ± 11 of expected (p<0.001)  Improved in 16 ± 9.8 days  34% had poor compliance to diet	Did not analyze on basis of compliance  Selection of cases

**Evidence Table 11 (cont'd): Consequences of testing for CD**

<b>Author, Year Country</b>	<b>Methods</b>	<b>Participants</b>	<b>Outcomes</b>	<b>Results</b>	<b>Limitations</b>
Rea, 1996 Italy	<p>Study type - case control longitudinal Study dates 1992-1994</p> <p>Population-group selection Celiacs - newly diagnosed children, biopsy confirmed</p> <p>Controls-age and sex matched healthy controls</p>	<p>Celiacs: n= 23</p> <p>Controls: n=23</p> <p>Proportion of F - 65.2% Mean age 4.7 ± 0.76</p> <p>Mean follow-up - 1 y</p> <p>Co-interventions All patients received vitamin D 1000 IU If iron was low, received iron supplementation</p>	<p>Height, BMI Weight, fat area index Triceps subscapular skin fold</p> <p>Biochemical values</p>	<p>Height. BMI, triceps skinfold, fat area index, and weight for height index all improved significantly.</p> <p>Hgb, iron, protein, albumin, triglycerides, calcium and zinc significantly improved Transferring, cholesterol, phosphorus and alk phos were not different</p>	<p>Compared to controls height still significantly lower</p>

**Evidence Table 11 (cont'd): Consequences of testing for CD**

Study, Year Country	Methods	Participants	Outcomes	Results	Results after treatment
Sategna- Guidetti, 2001 Italy	<p>Study type - longitudinal case control 1996-1998</p> <p>Population-group selection Celiacs consecutive newly diagnosed CD patients, biopsy proven Controls – age, sex matched healthy volunteers recruited among medical and nursing staff, blood donors or pts affected by COPD, peptic ulcer disease, no past history of thyroid dysfunction Excluded conditions that could affect thyroid function, excluded CD by means of EMA or biopsy</p> <p>Setting- 5 Italian centres</p>	<p>Celiac - 241</p> <p>Proportion F – 73% Controls – 212</p> <p>Mean follow-up- 1 y</p> <p>Clinical presentation Typical in 49%, atypical in 44% and silent in 16%</p>	<p>BMI</p> <p>Thyroid function (serum fT3 and fT4 by RIA, TSH by IRA and thyroid microsomal antibodies)</p>	<p>Similar in patients with and without thyroid disease</p> <p>Thyroid dysfunction in 73/241 (30.3%) vs 11.3% (p&lt;0.0005) Thyroid disease 3 X higher than controls</p> <p>Hypothyroidism diagnosed in 12.9% vs 4.2% of controls (p&lt;0.003)</p> <p>128 pts reassessed at 1 y 91 had normal thyroid, 37 some impairment Subclinical hypothyroidism improved in 71% patients with nonautoimmune thyroid disease</p>	<p>Improvements in BMI, nutritional indices, albumin and serum iron with GFD</p> <p>Gluten withdrawal (confirmed by biopsy recovery) seemed to normalize nonautoimmune thyroid disease</p> <p>5.5% of pts with normal thyroid function while untreated developed thyroid dysfunction one y later</p>

**Evidence Table 11 (cont'd): Consequences of testing for CD**

<b>Author, Year Country</b>	<b>Methods</b>	<b>Participants</b>	<b>Outcomes</b>	<b>Results</b>	<b>Limitations</b>
Saukkonen, 2002 Finland	Study type - longitudinal  Population-group selection Celiacs, screened 776 children with type 1 diabetes with serology/biopsy (over 2.7 y period) – own controls  Controls - none	Celiacs/type 1 diabetes n = 18 Mean onset of diabetes – 8.0 ± 4.5 y  Proportion F – 50%  Mean follow-up – 1 y	HbA1c  GI symptoms	No change in HbA1c levels with GFD  Symptoms which were reported in a retrospective questionnaire resolved in all but 2 pts	Significant increase in weight for height after diagnosis  No changes in Ht SDS

**Evidence Table 11 (cont'd): Consequences of testing for CD**

<b>Author, Year Country</b>	<b>Methods</b>	<b>Participants</b>	<b>Outcomes</b>	<b>Results</b>	<b>Limitations</b>
Smecuol, 1997 Argentina	Study type - longitudinal Dates – 1991-1993  Population-group selection Celiacs unselected consecutive patients with newly diagnosed CD, all were symptomatic, and biopsy confirmed acted as own controls	Celiac – 47 and 25 pts re- evaluated in 1995 Proportion F -  Mean follow-up - 37 mos  Compliance- 15 pts – strict GFD, 10 partial GFD  BMI	Fat and bone mass  Lean tissue mass  Weight and tricep skin fold thickness  Mid arm circumference and muscle mass	Significant increase in fat/bone mass  No change in lean tissue mass  Increases in body weight/triceps skinfold thickness	

**Evidence Table 11 (cont'd): Consequences of testing for CD**

Study, year, location	Methods	Participants	Outcomes	Measures of risk	Limitations
<p>Thomason, 2003, UK</p>	<p>Case-control study Self-report data from questionnaire. <b>Group selection:</b> CD pts: all biopsy-proven CD (also clinical/serology) from population based registers for Derby and Nottingham (less than 7% did not have a bx) Only pts born prior to 1950 included. Controls: age/sex matched random sample from Nottingham family health services. <b>Ascertainment of fractures:</b> Self-report of low trauma and non low trauma fractures <b>Blinding:</b> Investigator who categorized fractures as low trauma or not was blinded to whether case or control</p>	<p><b>CD pts:</b> n = 244 (70% females) <b>Controls</b> n=161 <b>Mean age:</b> CD: 60.2 y (10.1) Controls: 61.2 y <b>Mean BMI:</b> CD: 23.9 Controls: 25.8 <b>Proportion of females:</b> 70% <b>Proportion on GFD:</b> n/r <b>Clinical presentation:</b> n/r <b>Dx of osteoporosis:</b> 7.4% of cases versus 3.1% of controls <b>Smokers:</b> CD: 52.5% Controls: 43.3% <b>Cointerventions:</b> 4% of CD pts reported taking calcium <b>HRT:</b> 31% vs 21% of controls (significant), adjusted for HRT use in analysis</p>	<p><b>Fractures – low trauma</b> (fall from a standing height or less) <b>Any fracture:</b> CD: 82 (34.5%) Control: 53 (33.3%) <b>Forearm/wrist:</b> CD: 39 (16.4) Control: 22 (13.8) <b>Low trauma fracture:</b> CD: 37 (15.7%) Control: 21 (13.8%) (20 reported first fracture before diagnosis of CD and 10 pts reported first fracture after diagnosis)  Logistic regression to estimate odds ratio for fracture – adjusted for sex and age group  Cox's proportional Hazard model was used and only first low trauma fracture was included.</p>	<p>OR 1.05 (0.68-1.02)  OR 1.21 (0.66-2.25)  OR 1.16 (0.65-2.10)  When adjusted age, sex, BMD and smoking the OR 1.13 (95% CI 0.6-2.12)  Before Dx: HR 1.24 (95% CI 0.65 – 2.39)  Small but statistically-significant increase in risk of fractures</p>	<p>Retrospective  Self- report data Response rate to questionnaire was 72% in controls, 89% in celiacs  Inadequate power to detect fractures</p>

**Evidence Table 11 (cont'd): Consequences of testing for CD**

Study, year, location	Methods	Participants	Outcomes	Measures of risk	Limitations
<p>Vasquez, 2000, Argentina</p>	<p>Cross-sectional case-control study Retrospective historical review</p> <p><b>Group selection</b> <u>CD pts</u>: All biopsy-proven celiac disease, and clinical picture, excluded those with secondary osteoporosis other than celiac <u>Controls</u>: 165 subjects selected from output clinic and selected if their final diagnosis was a functional disorder. Excluded cases with known metabolic bone disorders <b>Institution</b>: Single institution Buenos Aires –tertiary hospital <b>Ascertainment of fracture</b> Pt interview, case report Vertebral fractures –X-ray of lumbar spine (not thoracic) in all CD and 62% of controls Did not have medical records of trauma events <b>Blinding</b>: n/r</p>	<p><b>CD pts</b>: n=165 <b>Median Age</b>: CD: 40 (16-74) y; 23% over 50 y <b>Mean age of controls</b>: 41 y <b>Median time from symptoms to diagnosis</b>: 7 y <b>Proportion of females</b>: 86.6% <b>Proportion on GFD</b>: 69%   Strict GFD: 44.8%   Reduced gluten: 24%   Untreated: 31% <b>Mean BMI</b>: 21.4 <b>Clinical presentation</b>: malabsorption or subclinical <b>Post-treatment biopsy</b>: histological improvement in 38 pts <b>Serology</b>: negative or reduced titres in all with positive serology</p>	<p><b>Fractures</b> Peripheral: <u>Cases</u>: 41 (25%) <u>Controls</u>: 14 (8%)</p> <p>Total number of fractures: 51 in celiacs/15 in controls <b>BMD</b>: Lower in those with fractures (non-significant) <b>Exclusions</b>: Only lumbar spine X-rays from 68 pts and 78 controls were considered to be of adequate quality</p>	<p><b>OR: Peripheral fractures</b> (25%) of CD pts and (8%) of controls; 3.5 (95% CI 1.8-7.2) p&lt;0.0001, wrist most common <b>Vertebral fractures</b> 4/78 (5%) of controls versus 9/68 (13%); OR 2.8 (0.7, 1.15) incomplete ascertainment X-rays: 68 pts and 78 controls were adequate quality</p> <p>Most fractures observed pre-diagnosis</p> <p>Only 7% of pt developed fractures after starting GFD</p>	<p>Cases were from a malabsorption clinic and therefore may have included subjects with more severe disease</p>

**Evidence Table 11 (cont'd): Consequences of testing for CD**

Study, Year, Location	Methods	Participants	Outcomes	Measures of risk	Limitations
Vestergard, 2002, Denmark	<p>Retrospective cohort study, population based Study dates: 1983-1996</p> <p><b>Group selection</b> <u>CD pts</u>: All individuals admitted/ discharged with a CD Dx (ICD -8) <u>Controls</u>: 3 controls per case population age and sex matched <b>Institution</b>: Danish hospitals <b>Ascertainment of fracture</b> National pt discharge register—any fracture registered during hospitalization <b>Confounders</b>: not examined <b>Blinding</b>: n/r Comorbidity examined by assessing hospital admissions for conditions that may alter risk of fractures. (2.8% in CD vs 2.6% in controls)</p>	<p><b>CD pts</b>: n=1,021; 7,774 PY <b>Controls</b>: n=23; 316 PY <b>Mean age at diagnosis</b>: 31.5 y (24.7) <b>Mean follow-up</b>: 7,774 PYs cases; 23,316 controls <b>Proportion of females</b>: 58% <b>Proportion on GFD</b>: n/r <b>Compliance</b>: n/r <b>Clinical presentation</b>: symptomatic (admission to hospital) <b>BMI</b>: n/r <b>Age at first fracture after diagnosis</b>: 40.2 y <b>Exclusions</b> ? output diagnosis of CD</p>	<p><b>All Fractures: CD vs control</b> Before diagnosis: 24/7774 PY vs 103/23,316 PY  After diagnosis: 65/6,675 vs 223/21,468 PY</p> <p><b>Spine Rib Pelvis Osteoporosis</b></p>	<p><b>Incidence rate ratio (ALL)</b> Before Dx: 0.70 (0.45,1.09) After Dx: 0.94 (0.71, 1.24)</p> <p>(spine, rib, pelvis) IRR 2.14 (0.70, 6.57) pre IRR 1.07 (0.39, 2.95) post</p> <p>IRR 3.00 (0.21,41.9) pre IRR 1.29 (0.4, 4.09) post</p>	<p>Used only hospital-based discharge data therefore could miss output fractures (wrist, rib)</p> <p>Based on assumption that majority of pts pre 1996 hospitalized early in course of disease</p> <p>Validity of diagnosis verified in random sample and was low (78%) n=9 therefore potential for misclassification</p> <p>Selection of controls Some of controls had diseases that may have increased fracture risk</p>

Evidence Table 11: Consequences of testing for CD

Study, Year, Location	Methods	Participants	Outcomes	Measures of risk	Limitations
West, 2003, UK	<p>Retrospective matched cohort study Study dates: 1987-2002</p> <p><b>Group selection</b> <u>Pts with CD</u>: All recorded Dx of CD recorded 1-yr after beginning of the GPRD record; no biopsy data <u>Controls</u>: matched by age, sex, general practice and follow-up time, excluded any who had record of a gluten-free prescription</p> <p><b>Primary care database</b>: GPRD established in 1987 <b>Ascertainment of fracture</b>: Admin database <b>Blinding</b>: n/r <b>Examined potential confounders</b></p>	<p><b>CD pts</b>: n=4,732 observ. time (27,116) <b>Controls</b>: n=23,620 (149,896 y of risk) <b>Mean age at diagnosis celiac</b>: 43.5 y Range of age: n/r <b>Proportion of females</b>: 67% <b>Proportion smoke</b>: 13% (controls 15.4%) <b>Mean follow-up</b>: 5.7 y, # PYs: 27,116</p> <p>10% of cohort did not receive a prescription for GFD, 36% 0-10 and 54≥10</p> <p><b>BMI</b>: <u>Celiacs</u>: &lt;25 – 47% <u>Controls</u>: &lt;25: 30.6% ≤18.5; 4.2% vs 1.2% of controls</p>	<p><b>Fracture: CD vs control</b> <b>Any fracture</b>: 356/4732 vs 1524/23616 137.9/10,000 PYs vs 105.9/10,000 in controls <b>Hip</b>: 8.9/10,000 PY versus 4.7/10,000 PY <b>Ulna/radius fracture</b>: 24.9/10,000 versus 14.1/10,000</p> <p>No difference in risk of fracture in period after diagnosis compared to before diagnosis</p>	<p>HR: 1.30 (95% CI, 1.16,1.46) (report prevalent and incident)</p> <p>HR 1.9 (1.20,3.02)</p> <p>HR 1.77 (1.35,2.34)</p> <p>Absolute diff in overall fracture rate was 3.2/1000 person y</p> <p>0.97/1000 for hip fracture in those &gt;45 y</p>	<p>Celiacs more frequent attenders, ?overestimate rate of some fractures relative to controls</p> <p>Misclassification – accuracy of diagnosis of CD</p> <p>? Less likely in UK, since GPs not likely to write prescription for GFD</p>

Evidence Table 11 (cont'd): Consequences of testing for CD

Author, Year, Country	Methods	Participants	Outcomes	Results	Limitations
Westman 1999 Australia	<p>Study type-</p> <p>Population-coexisting type 1 diabetics and CD identified from database of Diabetes Center-biopsy proven Controls- 40 matched for age and sex and duration of IDDM</p>	<p>Cases 20</p> <p>Control 40</p> <p>Duration of diabetes: 7.2 vs 7.3 y controls</p> <p>% F - 75%</p> <p>Mean follow-up</p> <p>Compliance with FFQ</p>	<p>Height SDS</p> <p>Weight SDS</p> <p>BMI SDS</p> <p>HbA1c</p> <p>Compliance</p>	<p>No difference in height SDS, weight SDS or BMI SDS</p> <p>8.48 ± 0.98% for CD vs 8.87 ± 1.46 for controls</p> <p>30% strict GF, 30% trace gluten and 40% significant amt of gluten</p>	

## Celiac 5: Promoting or Monitoring Adherence to a GFD

**Evidence Table 12: Promoting or monitoring adherence to a GFD**

Author, year, location	Study Design	Study Population	Outcomes				Comments
			Time 1	Time 2	Time 3	Time 4	
Anson, 1990, Israel	<b>Publication type:</b> journal <b>Study design:</b> Parental questionnaire <b>Ethnicity:</b> n/r <b>Population type:</b> Jewish children with CD <b>Biopsy criteria:</b> n/r <b>Checked IgA def.</b> no <b>Serologic tests:</b> <u>Test name:</u> n/a <u>Methodology:</u> n/a <u>Cut-off:</u> n/a	<b>Celiac Group 1</b> •31 children judged GFD compliant based on symptoms and/or serology and/or biopsy <b>Celiac Group 2</b> • 12 children judged non-compliant with GFD • age: n/r • %F: n/r	Baseline				Compliance correlated with father being professional/parental education/parental ability to choose GF items from menu.
			Biopsy				
			AGA				
			EMA				
			tTG				

**Evidence Table 12 (cont'd): Promoting or monitoring adherence to a GFD**

Author, year, location	Study Design	Study Population	Outcomes				Comments
			Time 1	Time 2	Time 3	Time 4	
Bardella, 2001, Italy	<b>Publication type:</b> journal <b>Study design:</b> case-control <b>Ethnicity:</b> n/r <b>Population type:</b> CD: details of diagnosis n/r <b>Biopsy criteria:</b> Marsh <b>Checked IgA def.</b> Yes, excluded <b>Serologic tests:</b> <u>Test name:</u> IgA-AGA; IgA-EMA; IgA-tTG <u>Methodology:</u> n/r; ME; GP liver <u>Cut-off:</u> 12 AU/mL; 1:10; 10 AU/mL	<b>Celiac Group 1</b> • 40 pts, untreated CD • mean age: 38 y (range 16-77 y) <b>Celiac Group 2</b> • 25 CD; poor GFD compliance • age: n/r • gender: n/r <b>Celiac Group 3</b> • 22 CD. Compliant GFD<2 y • age: n/r • gender: n/r <b>Celiac Group 4</b> • 148 CD. Compliant GFD >2 y • age: n/r gender: n/r Control • 110 non-CD controls • age: nr • gender: n/r	Baseline				Serology falls with increasing length of compliance with GFD. No biopsy to correlate serology with in this study.
			<b>Biopsy</b>				
			<b>AGA</b> Group 1 95%; Group 2 100%; Group 3 40.9%; Group 4 16.2%; Control 10.9%				
			<b>EMA</b> 100%; 100%; 54.5%; 9.5%; 2.7%				
			<b>tTG</b> 100%; 100% 63.6%; 14.2% 1.8%				

**Evidence Table 12 (cont'd): Promoting or monitoring adherence to a GFD**

Author, year, location	Study Design	Study Population	Outcomes				Comments
			Time 1	Time 2	Time 3	Time 4	
Bartholomeus, 1990, Australia	<b>Publication type:</b> journal <b>Study design:</b> cohort <b>Ethnicity:</b> n/r <b>Population type:</b> CD: details of diagnosis n/r <b>Biopsy criteria:</b> Adults partial VA, subtotal VA, total VA; children ESPGAN <b>Checked IgA def.</b> No <b>Serologic tests:</b> <u>Test name:</u> IgA-AGA <u>Methodology:</u> n/r <u>Cut-off:</u> n/r	<b>Celiac Group 1</b> • 17 CD. GFD >6 mos adults and children • age: n/r • gender: n/r <b>Celiac Group 2</b> • 12 adults and children with CD on gluten • age: n/r • gender: n/r	Baseline				PPV of IgA AGA for non-compliance 78.5% for pts on GFD > 6 mos. How compliance ascertained not described.
			Biopsy				
			AGA Group 1 3 (17%); Group 2 11 (92%)				
			EMA				
			tTG				

**Evidence Table 12 (cont'd): Promoting or monitoring adherence to a GFD**

Author, year, location	Study Design	Study Population	Outcomes				Comments
			Time 1	Time 2	Time 3	Time 4	
Burgin-Wolff, 1991, Switzerland	<b>Publication type:</b> journal <b>Study design:</b> case-control <b>Ethnicity:</b> n/r <b>Population type:</b> Classic CD <b>Biopsy criteria:</b> CD if subtotal VA, total VA <b>Checked IgA def.</b> no <b>Serologic tests:</b> <u>Test name:</u> IgA-AGA ; IgA-EMA <u>Methodology:</u> n/r; ME <u>Cut-off:</u> n/r; 1:10	<b>Celiac Group 1</b> • 134 children CD on GFD • mean age: n/r (range 3-18 y) • gender: n/r	Baseline	GC 36 to 90 d	GC 3 to 12 mos	GC > 3 y	With gluten challenge IgA AGA and EMA seroconversion. AGA rises faster but positivity wanes with time.
			<b>Biopsy</b>				
			<b>AGA</b> 23% IgA-AGA	97%	5%	49%	
			<b>EMA</b> 13% EMA	65%	84%	93%	
			<b>tTG</b>				

**Evidence Table 12 (cont'd): Promoting or monitoring adherence to a GFD**

Author, year, location	Study Design	Study Population	Outcomes				Comments
			Time 1	Time 2	Time 3	Time 4	
Dickey, 2000, Northern Ireland	<b>Publication type:</b> journal <b>Study design:</b> prospective cohort <b>Ethnicity:</b> n/r <b>Population type:</b> Adults with classic CD <b>Biopsy criteria:</b> Marsh <b>Checked IgA def.</b> Yes. Excluded <b>Serologic tests:</b> <u>Test name:</u> IgA EMA <u>Methodology:</u> ME <u>Cut-off:</u> >1:5	<b>Celiac Group 1</b> • 53 pts • mean age: 55; range 16-80 y • 74% F	Baseline	GFD 3 mos	GFD 6 mos	GFD 12 mos	EMA failed to detect VA in a significant number. These cases were felt to have VA due to non-compliance.
			<b>Biopsy</b> 12 partial VA; 21 subtotal VA; 21 total VA			20 normal; 1 Marsh 1 (high IEL); 22 partial VA; 10 total VA or subtotal VA	
			<b>AGA</b>				
			<b>EMA</b> 100%	42%	25%	0% normal; 0% Marsh 1; 2 (9%) partial VA; 3 (30%) subtotal/total VA	
			<b>tTG</b>				

**Evidence Table 12 (cont'd): Promoting or monitoring adherence to a GFD**

Author, year, location	Study Design	Study Population	Outcomes				Comments
			Time 1	Time 2	Time 3	Time 4	
Fabiani, 1996, Italy	<b>Publication type:</b> journal <b>Study design:</b> retrospective cohort <b>Ethnicity:</b> n/r <b>Population type:</b> CD identified by screen <b>Biopsy criteria:</b> no description <b>Checked IgA def.</b> No <b>Serologic tests:</b> <u>Test name:</u> IgA AGA; IgA EMA <u>Methodology:</u> n/r <u>Cut-off:</u> n/r	<b>Celiac Group 1</b> • 12 children reporting strict GFD • age: n/r • gender: n/r <b>Celiac Group 2</b> • 11 children reporting non-compliance • age: n/r • gender: n/r	Baseline				Among pts reporting dietary transgressions 9 of 11 (81%) had normal AGA and EMA.
			Biopsy				
			AGA				
			EMA				
			tTG				

**Evidence Table 12 (cont'd): Promoting or monitoring adherence to a GFD**

Author, year, location	Study Design	Study Population	Outcomes				Comments
			Time 1	Time 2	Time 3	Time 4	
Fabiani, 2000, Italy	<b>Publication type:</b> journal <b>Study design:</b> case-control <b>Ethnicity:</b> n/r <b>Population type:</b> CD identified in a mass screen <b>Biopsy criteria:</b> ESPGAN <b>Checked IgA def.</b> No <b>Serologic tests:</b> <u>Test name:</u> n/a <u>Methodology:</u> n/a <u>Cut-off:</u> n/a	<b>Celiac Group 1</b> <ul style="list-style-type: none"> <li>• 22 children CD identified by screen</li> <li>• mean age: 17.9 y; range: n/r</li> <li>• 59% F</li> </ul> <b>Control</b> <ul style="list-style-type: none"> <li>• 22 children with classic CD on GFD</li> <li>• mean age: 16 y; range: n/r</li> <li>• 59% F</li> </ul>	Baseline				5 (23%) identified by screen reporting strict GFD. 15 (68%) of controls reporting strict GFD? Less compliant if screened CD.
			Biopsy				
			AGA				
			EMA				
			tTG				

**Evidence Table 12 (cont'd): Promoting or monitoring adherence to a GFD**

Author, year, location	Study Design	Study Population	Outcomes				Comments
			Time 1	Time 2	Time 3	Time 4	
Fabiani, 2001, Italy	<b>Publication type:</b> journal <b>Study design:</b> case-control <b>Ethnicity:</b> n/r <b>Population type:</b> Classic CD <b>Biopsy criteria:</b> Marsh <b>Checked IgA def.</b> Yes. Excluded <b>Serologic tests:</b> <u>Test name:</u> IgA-tTG <u>Methodology:</u> GP liver <u>Cut-off:</u> 7 AU	<b>Celiac Group 1</b> <ul style="list-style-type: none"> <li>• 176 pt new diagnosis CD</li> <li>• mean age: 16.4 y; range 0.3-87.4 y</li> <li>• 65% F</li> </ul> <b>Celiac Group 2</b> <ul style="list-style-type: none"> <li>• 172 CD on GFD &gt; 1</li> <li>• mean age: 17.6 y; range 0.3 - 89.8 y</li> <li>• 66% F</li> </ul> <b>Control</b> <ul style="list-style-type: none"> <li>• 206 healthy and non-CD</li> <li>• mean age: 15.6 y; range 0.4-78 y</li> <li>• 50% F</li> </ul>	Baseline				tTG value higher in higher Marsh lesions. Values tend to be higher in pts admitting dietary transgressions.
			<b>Biopsy</b> Group 1: 0 Marsh 1, 29 (16%) Marsh 2, 145 (84%) Marsh 3 Group 2: n/a Control: n/a				
			<b>AGA</b>				
			<b>EMA</b>				
			<b>tTG</b> Group 1: mean tTG Marsh 2 16 AU, Marsh 3 22 AU Group 2: strict GFD 4.2 AU, GFD transgressions 9.9 AU Control: 2.7 AU				

**Evidence Table 12 (cont'd): Promoting or monitoring adherence to a GFD**

Author, year, location	Study Design	Study Population	Outcomes				Comments
			Time 1	Time 2	Time 3	Time 4	
Fotoulaki, 1999, Greece	<b>Publication type:</b> journal <b>Study design:</b> prospective cohort <b>Ethnicity:</b> n/r <b>Population type:</b> Classic and atypical CD <b>Biopsy criteria:</b> ESPGAN <b>Checked IgA def.</b> yes <b>Serologic tests:</b> <u>Test name:</u> IgG AGA; IgG AGA; IgA EMA <u>Methodology:</u> n/r; ME <u>Cut-off:</u> 0.3 control; 0.3 control; 1:2.5	<b>Celiac Group 1</b> • 30 CD • mean age: n/r; range 1-24 y • 57% F <b>Celiac Group 2</b> • median age: (range: ) • % F:	Baseline	GFD 12 mos	GC 6 mos		Study suggests that after 1 y GFD, AGA and EMA predict Marsh 0 or 1 lesion. Significance of Marsh 1 unclear.
			<b>Biopsy</b> n/r	100% Marsh 0 or 1 (breakdown not given )	All Marsh 2 or 3 (breakdown not given )		
			<b>AGA</b> IgG AGA 100%; 90% IgA AGA	40% IgG AGA; 0% IgA AGA	100% IgG: 90% IgA		
			<b>EMA</b> 100%	0%	90%		
			<b>tTG</b>				

**Evidence Table 12 (cont'd): Promoting or monitoring adherence to a GFD**

Author, year, location	Study Design	Study Population	Outcomes				Comments
			Time 1	Time 2	Time 3	Time 4	
Hogberg, 2003, Sweden	<b>Publication type:</b> journal <b>Study design:</b> retrospective cohort <b>Ethnicity:</b> n/r <b>Population type:</b> Classic CD <b>Biopsy criteria:</b> ESPGAN <b>Checked IgA def.</b> no <b>Serologic tests:</b> <u>Test name:</u> IgG-EMA; IgA-EMA; tTG <u>Methodology:</u> ME; GP <u>Cut-off:</u> 1:10;1:10;>25 AU	<b>Celiac Group 1</b> <ul style="list-style-type: none"> <li>• 29 adults diagnosed as a child</li> <li>• mean age: 26 y; range 19-34 y</li> <li>• 69% F</li> </ul>	Baseline				12/15 (80%) diagnosed before age 4 judged GFD compliant (serology/question naire) vs. only 5/14 (36%) diagnosed after age 4.
			Biopsy				
			AGA				
			EMA				
			tTG				

**Evidence Table 12 (cont'd): Promoting or monitoring adherence to a GFD**

Author, year, location	Study Design	Study Population	Outcomes				Comments
			Time 1	Time 2	Time 3	Time 4	
Jackson, 1985, Ireland	<b>Publication type:</b> journal <b>Study design:</b> questionnaire <b>Ethnicity:</b> n/r <b>Population type:</b> Classic CD <b>Biopsy criteria:</b> CD if severe VA and gluten response <b>Checked IgA def.</b> no <b>Serologic tests:</b> <u>Test name:</u> n/a <u>Methodology:</u> n/a <u>Cut-off:</u> n/a	<b>Celiac Group 1</b> • 50 children CD • median age: 9.9 y; range 1.5-19 y • 58% F	Baseline				GFD judged by parental questionnaire correlated with parental membership in Celiac society, parental knowledge of CD.
			Biopsy				
			AGA				
			EMA				
			tTG				

**Evidence Table 12 (cont'd): Promoting or monitoring adherence to a GFD**

Author, year, location	Study Design	Study Population	Outcomes				Comments
			Time 1	Time 2	Time 3	Time 4	
Kaukinen, 2002, Finland	<b>Publication type:</b> journal <b>Study design:</b> prospective cohort <b>Ethnicity:</b> n/r <b>Population type:</b> Classic CD <b>Biopsy criteria:</b> Marsh <b>Checked IgA def.</b> Yes. Excluded <b>Serologic tests:</b> <u>Test name:</u> IgA-EMA; IgA-tTG <u>Methodology:</u> HU; GP liver <u>Cut-off:</u> 1:5; 1:20	<b>Celiac Group 1</b> • 87 pts on GFD • mean age: 49 y; range 22-73 y • 72% F	Baseline GFD median 1 y				tTG sens 41% spec 88% PPV 61% NPV 77% EMA sens 26% spec 93% PPV 63% NPV 74%
			<b>Biopsy</b> 60 (69%) Marsh 0-II; 27 (31%) Marsh III				
			<b>AGA</b>				
			<b>EMA</b> 7 (26%) in Marsh III				
			<b>tTG</b> 11 (41%) in Marsh III				

**Evidence Table 12 (cont'd): Promoting or monitoring adherence to a GFD**

Author, year, location	Study Design	Study Population	Outcomes				Comments
			Time 1	Time 2	Time 3	Time 4	
Lamontagne, 2001, Canada	<b>Publication type:</b> journal <b>Study design:</b> questionnaire <b>Ethnicity:</b> n/r <b>Population type:</b> <b>Biopsy criteria:</b> <b>Checked IgA def.</b> <b>Serologic tests:</b> <u>Test name:</u> n/a <u>Methodology:</u> n/a <u>Cut-off:</u> n/a	<b>Celiac Group 1</b> • 234 CD. Members of Quebec Celiac Foundation • mean age: 49 y; range 18-84 y • 75% F	Baseline				Older age ( $p < .05$ ) & high level of confidence in treatment information from gastroenterologists & dieticians ( $p < .005$ ) assoc. compliance.
			<b>Biopsy</b>				
			<b>AGA</b>				
			<b>EMA</b>				
			<b>tTG</b>				

**Evidence Table 12 (cont'd): Promoting or monitoring adherence to a GFD**

Author, year, location	Study Design	Study Population	Outcomes				Comments	
			Time 1	Time 2	Time 3	Time 4		
Lee, 2003, USA	<p><b>Publication type:</b> journal</p> <p><b>Study design:</b> retrospective cohort</p> <p><b>Ethnicity:</b> n/r</p> <p><b>Population type:</b> Classic CD</p> <p><b>Biopsy criteria:</b> Normal, partial VA or total VA</p> <p><b>Checked IgA def.</b> n/r</p> <p><b>Serologic tests:</b></p> <p><u>Test name:</u> IgG AGA; IgA AGA; IgA AMA</p> <p><u>Methodology:</u> n/r</p> <p><u>Cut-off:</u> n/r</p>	<p><b>Celiac Group 1</b></p> <ul style="list-style-type: none"> <li>• n=39 pts on GFD</li> <li>• mean age: 52 y; range 20-74 y</li> <li>• 60% F</li> </ul>	Baseline	1-14 y after initial Dx: only 12 pts re-biopsied; 31/39 had serology			<p>Persistent abnormal biopsy on GFD. Only 21% had normal duodenal biopsy; serology was negative despite some VA in most.</p>	
			<b>Biopsy</b>	Normal 8 (21%); partial VA 27 (69%); total VA 4 (10%); IEL/epithelial cells 61	IEL/100 epithelial cells-38; villous height to crypt ratio improved in all but one; none normalized			
			<b>AGA</b>		7; IgG only 4; IgG and IgA in 3			
			<b>EMA</b>		1 of 31			
			<b>tTG</b>					

**Evidence Table 12 (cont'd): Promoting or monitoring adherence to a GFD**

Author, year, location	Study Design	Study Population	Outcomes				Comments
			Time 1	Time 2	Time 3	Time 4	
Ljungman, 1993, Sweden	<b>Publication type:</b> journal <b>Study design:</b> questionnaire <b>Ethnicity:</b> n/r <b>Population type:</b> Classic CD <b>Biopsy criteria:</b> ESPGAN <b>Checked IgA def.</b> n/r <b>Serologic tests:</b> <u>Test name:</u> n/a <u>Methodology:</u> n/a <u>Cut-off:</u> n/a	<b>Celiac Group 1</b> • 47 children born between 1973-78 • mean age: n/r • gender: n/r	Baseline				Self-assessed GFD compliance correlated with knowledge as scored on a test and with a feeling of being well informed.
			Biopsy				
			AGA				
			EMA				
			tTG				

**Evidence Table 12 (cont'd): Promoting or monitoring adherence to a GFD**

Author, year, location	Study Design	Study Population	Outcomes				Comments	
			Time 1	Time 2	Time 3	Time 4		
Martini, 2002 Italy	<b>Publication type:</b> journal <b>Study design:</b> prospective cohort <b>Ethnicity:</b> n/r <b>Population Type:</b> Classic CD <b>Biopsy criteria:</b> Marsh <b>Checked IgA def.</b> n/r <b>Serologic tests:</b> <u>Test name:</u> IgA-EMA; IgA-tTG-1; tTG-2, tTG-3, tTG4, tTG-GP <u>Methodology:</u> ME; HU; HU; HU; HU; GP <u>Cut-off:</u> 1:5; n/r	<b>Celiac Group 1</b> <ul style="list-style-type: none"> <li>• 109 CD on GFD 1 y</li> <li>• median age: 37 y; range 21-72 y</li> <li>• 78% F</li> </ul>	Baseline (at diagnosis)	GFD 1 y +/- 1mos			Poor concordance between biopsy and serology after GFD for one year. GFD led to a significant decrease in majority.	
			<b>Biopsy</b>	6 (6%) Marsh 2; 95 (95%) Marsh3	12 (12%) normal; 51 (50%) Marsh 1; 38 (38%) Marsh 2 or 3			
			<b>AGA</b>	n/a	n/a			
			<b>EMA</b>	n/a	Concordance (both biopsy/EMA + or both) 48%			
			<b>tTG</b>	n/a	Concordance 29%; 65%;14%; 16%; 19%			

**Evidence Table 12 (cont'd): Promoting or monitoring adherence to a GFD**

Author, year, location	Study Design	Study Population	Outcomes				Comments
			Time 1	Time 2	Time 3	Time 4	
McNichol, 1976, Ireland	<b>Publication type:</b> journal <b>Study design:</b> cohort <b>Ethnicity:</b> n/r <b>Population type:</b> Classic CD <b>Biopsy criteria:</b> Normal, slight, moderate, severe mucosal damage <b>Checked IgA def.</b> n/r <b>Serologic tests:</b> <u>Test name:</u> n/a <u>Methodology:</u> n/a <u>Cut-off:</u> n/a	<b>Celiac Group 1</b> <ul style="list-style-type: none"> <li>• 36 children on GFD (mean 6 y)</li> <li>• mean age: n/r; range 2.75-11 y</li> <li>• gender: n/r</li> </ul> <b>Control</b> <ul style="list-style-type: none"> <li>• 25 normal siblings</li> <li>• mean age: 9.9; range: 4-18</li> <li>• gender: n/r</li> </ul>	Baseline				IEL count higher in CD with slight damage than no damage (p<.005) or controls (p<.001)
			<b>Biopsy</b> Group 1- 16 (44%) normal. 20 (56%) slight mucosal damage; controls all normal				
			<b>AGA</b>				
			<b>EMA</b>				
			<b>tTG</b>				

**Evidence Table 12 (cont'd): Promoting or monitoring adherence to a GFD**

Author, Year, Location	Study Design	Study Population	Outcomes				Comments
			Time 1	Time 2	Time 3	Time 4	
Pacht 1995, Israel	<b>Publication type:</b> journal <b>Study design:</b> retrospective cohort <b>Ethnicity:</b> n/r <b>Population Type:</b> Classic CD <b>Biopsy criteria:</b> ESPGAN <b>Checked IgA def.</b> n/r <b>Serologic tests:</b> <u>Test name:</u> IgA EMA <u>Methodology:</u> ME <u>Cut-off:</u> >1:2.5	<b>Celiac Group 1</b> • 39 CD, 22 GCD and 17 GFD • mean age: 10 y; range: n/r • % F: 46% <b>Celiac Group 2</b> • median age: (range: ) • % F:	Baseline 22 GCD;17 GFD				EMA titre monitored longitudinally in 10 pts correlated with gluten intake. EMA correlated with investigator gluten assessment.
			<b>Biopsy</b> n/r; histology available on 5 on GFD - all normal				
			<b>AGA</b>				
			<b>EMA</b> 22/22 GCD EMA+; 0/17 GFD EMA+				
			<b>tTG</b>				

**Evidence Table 12 (cont'd): Promoting or monitoring adherence to a GFD**

Author, year, location	Study Design	Study Population	Outcomes				Comments
			Time 1	Time 2	Time 3	Time 4	
Sategna-Guidetti, 1996, Italy	<b>Publication type:</b> journal <b>Study design:</b> prospective cohort <b>Ethnicity:</b> n/r <b>Population Type:</b> CD: details of diagnosis not reported <b>Biopsy criteria:</b> Normal, partial VA, subtotal VA, total VA <b>Checked IgA def.</b> Yes, excluded <b>Serologic tests:</b> <u>Test name:</u> total AGA; IgA EMA <u>Methodology:</u> n/r; ME <u>Cut-off:</u> n/r	<b>Celiac Group 1</b> • 47 pts • mean age: n/r; range: 18-68 y • 55% F	Baseline	GFD 8-30 mos			EMA PPV for abnormal histology 100%, NPV 23%; AGA (total) PPV for abnormal histology 93.8%, NPV 25%
			<b>Biopsy</b> 0 normal; 1 (2.1%) partial VA; 11 (23%) subtotal VA; 35 (74%) total VA	9 (19%) normal ; 23 (49%) partial VA; 13 (28%) subtotal VA ;2 (4%) total VA			
			<b>AGA</b> 39 (83%)	AGA measured in 39; Bx normal: 1/7 AGA+; partial VA: 7/20; subtotal VA: 5/10; total VA: 2/2			
			<b>EMA</b> 47 (100%)	Bx normal: 0 EMA+; partial VA: 5/23; subtotal VA: 3/13; total VA: 1/2			
			<b>tTG</b> n/a				

**Evidence Table 12 (cont'd): Promoting or monitoring adherence to a GFD**

Author, year, location	Study Design	Study Population	Outcomes				Comments
			Time 1	Time 2	Time 3	Time 4	
Scalici, 2003, Italy	<b>Publication type:</b> journal <b>Study design:</b> prospective cohort <b>Ethnicity:</b> n/r <b>Population type:</b> Classic CD <b>Biopsy criteria:</b> ESPGAN <b>Checked IgA def.</b> n/r <b>Serologic tests:</b> <u>Test name:</u> IgA EMA <u>Methodology:</u> n/r <u>Cut-off:</u> n/r	<b>Celiac Group 1</b> • 61 CD pts • mean age: n/r; age range 2-27 y • %F: n/r <b>Celiac Group 2</b> • median age: (range: ) • % F:	Baseline (at diagnosis)	GFD for 6 mos			Only 11.1% EMA + if 1 dietary transgression/ mos (after 6 mos GFD). 19% EMA + if 1 or more dietary transgressions per week
			Biopsy n/r	n/a			
			AGA				
			EMA 0 EMA+	2/16 (12.5%) reporting strict GFD EMA+; 5/45 (11.1%) admitting dietary mistakes EMA+			
			tTG				

**Evidence Table 12 (cont'd): Promoting or monitoring adherence to a GFD**

Author, Year, Location	Study Design	Study Population	Outcomes				Comments
			Time 1	Time 2	Time 3	Time 4	
Selby, 1999  Australia	<b>Publication type:</b> journal <b>Study design:</b> cross sectional <b>Ethnicity:</b> n/r <b>Population Type:</b> Classic CD <b>Biopsy criteria:</b> Normal, partial VA, subtotal VA, total VA <b>Checked IgA def.</b> n/r <b>Serologic tests:</b> <u>Test name:</u> n/a <u>Methodology:</u> n/a <u>Cut-off:</u> n/a	<b>Celiac Group 1</b> • 89 pts CD on GFD mean 8.3 y • mean age: 47 y; range: 20-75 • 82% F	Baseline 39 Codex diet; 50 no detectable gluten				VA persisted at high rates after prolonged GFD (whether Codex diet allowing .03% protein from gluten or on no detectable GFD)
			<b>Biopsy</b> 18/39 (46%) VA; 20/50 (40%) VA				
			<b>AGA</b>				
			<b>EMA</b>				
			<b>tTG</b>				

**Evidence Table 12 (cont'd): Promoting or monitoring adherence to a GFD**

Author, Year, Location	Study Design	Study Population	Outcomes				Comments
			Time 1	Time 2	Time 3	Time 4	
Troncone, 1995  Italy	<b>Publication type:</b> journal <b>Study design:</b> cohort <b>Ethnicity:</b> n/r <b>Population Type:</b> CD : details of diagnosis not reported <b>Biopsy criteria:</b> Normal, partial VA, subtotal VA, total VA <b>Checked IgA def.</b> n/r <b>Serologic tests:</b> <u>Test name:</u> IgA EMA <u>Methodology:</u> ME <u>Cut-off:</u> >1:5	<b>Celiac Group 1</b> <ul style="list-style-type: none"> <li>• 4 CD on strict GFD (23 in overall study)</li> <li>• mean age: 14.5 y; range 10-19 y</li> <li>• 35% F)</li> </ul> <b>Celiac Group 2</b> <ul style="list-style-type: none"> <li>• 6 pts &lt;0.5 g/d gluten</li> <li>• median age: n/r; range: n/r</li> <li>• % F: n/r</li> </ul> <b>Celiac Group 3</b> <ul style="list-style-type: none"> <li>• 6 pts 0.5-1.0 g/d gluten</li> <li>• median age: n/r; range: n/r</li> <li>• % F: n/r</li> </ul> <b>Celiac Group 4</b> <ul style="list-style-type: none"> <li>• 7 pts&gt;2 g/d gluten</li> <li>• median age: n/r; range: n/r</li> <li>• % F: n/r</li> </ul>	Baseline				EMA often did not pick up mild dietary transgressions despite mucosal abnormalities including VA.
			<b>Biopsy</b> Group 1 4/4 normal; Group 2 3/6 high IEL, 1/6 VA; Group 3 5/6 high IEL 3/6 VA; Group 4 7/7 VA				
			<b>AGA</b>				
			<b>EMA</b> Group1 0/4; Group 2 1/6; Group 3 3/6; Group 4 7/7				
			<b>tTG</b>				

**Evidence Table 12 (cont'd): Promoting or monitoring adherence to a GFD**

Author, Year, Location	Study Design	Study Population	Outcomes				Comments
			Time 1	Time 2	Time 3	Time 4	
Vahedi, 2000  France	<b>Publication type:</b> abstract <b>Study design:</b> cross sectional <b>Ethnicity:</b> n/r <b>Population type:</b> CD: details of diagnosis not reported <b>Biopsy criteria:</b> no description <b>Checked IgA def.</b> Yes. Excluded <b>Serologic tests:</b> <u>Test name:</u> IgA EMA; IgA tTG <u>Methodology:</u> n/r <u>Cut-off:</u> 1:5; n/r	<b>Celiac Group 1</b> <ul style="list-style-type: none"> <li>• 137 CD on GFD&gt;1 y - median 75 mos</li> <li>• median age: 46 y; range 18-74 y</li> <li>• 76% F</li> </ul>	Baseline (39% strict GFD)				EMA and tTG often negative despite dietary transgression. EMA 37% sensitive for minor transgression. tTG 31% sensitive.
			Biopsy n/a				
			AGA				
			EMA 2.5% strict GFD; 37% minor transgression; 86% major transgression				
			tTG 3% strict GFD; 31% minor transgression; 77% major transgression				

**Evidence Table 12 (cont'd): Promoting or monitoring adherence to a GFD**

Author, year, location	Study Design	Study Population	Outcomes				Comments
			Time 1	Time 2	Time 3	Time 4	
Valentini, 1994, Italy	<b>Publication type:</b> journal <b>Study design:</b> prospective cohort <b>Ethnicity:</b> n/r <b>Population Type:</b> Classic and atypical CD <b>Biopsy criteria:</b> Normal, partial VA, subtotal VA <b>Checked IgA def.</b> n/r <b>Serologic tests:</b> <u>Test name:</u> IgA EMA <u>Methodology:</u> ME <u>Cut-off:</u> >1:5	<b>Celiac Group 1</b> • 33 CD pts on GFD >6 mos- mean 9 mos • mean age: n/r; range: n/r • % F: n/r	Baseline GFD > 6 mos				17/24 EMA negative after 6 mos on a GFD despite VA on biopsy
			<b>Biopsy</b> 8 normal; 21 partial VA; 4 subtotal VA				
			<b>AGA</b>				
			<b>EMA</b> 9 (27%). Of 73% EMA negative, 7 normal, 14 partial VA, 3 subtotal VA				
			<b>tTG</b>				

**Evidence Table 12 (cont'd): Promoting or monitoring adherence to a GFD**

Author, Year, Location	Study Design	Study Population	Outcomes				Comments
			Time 1	Time 2	Time 3	Time 4	
Valetta, 1990 Italy	<b>Publication type:</b> journal <b>Study design:</b> prospective cohort <b>Ethnicity:</b> n/r <b>Population type:</b> CD: details of diagnosis not reported <b>Biopsy criteria:</b> N, slight VA, moderate VA, severe VA <b>Checked IgA def.</b> n/r <b>Serologic tests:</b> <u>Test name:</u> IgA AGA <u>Methodology:</u> n/r <u>Cut-off:</u> >3 SD controls	<b>Celiac Group 1</b> <ul style="list-style-type: none"> <li>• 17 pts given gluten challenge</li> <li>• mean age: n/r; range 3 – 11 y</li> <li>• 59% F</li> </ul>	Baseline				With GC, most AGA+ which prompted Bx showing VA in all. Does not necessarily mean compliance could be monitored.
			<b>Biopsy</b> at 20-45 d, all had moderate or severe VA				
			<b>AGA</b> 16/17 (94%) after 15 - 35 d gluten challenge				
			<b>EMA</b>				
			<b>tTG</b>				

**Evidence Table 12 (cont'd): Promoting or monitoring adherence to a GFD**

Author, year, location	Study Design	Study Population	Outcomes				Comments
			Time 1	Time 2	Time 3	Time 4	
Wahab, 2002, unknown	<b>Publication type:</b> journal <b>Study design:</b> retrospective cohort <b>Ethnicity:</b> n/r <b>Population type:</b> Classic CD <b>Biopsy criteria:</b> Marsh <b>Checked IgA def.</b> No <b>Serologic tests:</b> <u>Test name:</u> n/a <u>Methodology:</u> n/a <u>Cut-off:</u> n/a	<b>Celiac Group 1</b> <ul style="list-style-type: none"> <li>• 158 pts</li> <li>• mean age: 44 y; range 0 – 74 y</li> <li>• 91% F</li> </ul> <b>Celiac Group 2</b> <ul style="list-style-type: none"> <li>• median age: (range: n/r )</li> <li>• % F:</li> </ul>	Baseline	GFD <2 years	GFD 2-5 years	GFD >5 years	Overall, only 65% recovery within 2 y. 10% with no recovery after 5 y. Recovery defined as no VA ( Marsh 0-2).
			<b>Biopsy</b> 59 (37%) Marsh 3a; 59 (37%) 3b; 40 (25%) 3c	88% 3a recovery to 0-2; 58% 3b recovery ; 81% 3c recovery	98% 3a recovery to 0-2; 78% 3b recovery; 81% 3c recovery	98% 3a recovery to 0-2; 88% 3b recovery; 86% 3c recovery	
			<b>AGA</b>				
			<b>EMA</b>				
			<b>tTG</b>				

## Listing of Included Studies

- Ackerman Z, Eliakim R, Stalnikowicz R, Rachmilewitz D (1996) Role of small bowel biopsy in the endoscopic evaluation of adults with iron deficiency anemia. *Am J Gastroenterol* 91: 2099-2102
- Addolorato G, Capristo E, Ghittoni G, Valeri C, Masciana R, Ancona C, Gasbarrini G (2001) Anxiety but not depression decreases in coeliac patients after one-year gluten-free diet: a longitudinal study. *Scand J Gastroenterol* 36: 502-506
- Agardh D, Nilsson A, Tuomi T, Lindberg B, Carlsson AK, Lernmark A, Ivarsson S-A (2001) Prediction of silent celiac disease at diagnosis of childhood type 1 diabetes by tissue transglutaminase autoantibodies and HLA. *Pediatr Diabetes* 2: 58-65
- Altuntas B, Kansu A, Ensari A, Girgin N (1998) Celiac disease in Turkish short-statured children and the value of antigliadin antibody in diagnosis. *Acta Paediatr Jpn* 40: 457-460
- Amin R, Murphy N, Edge J, Ahmed ML, Acerini CL, Dunger DB (2002) A longitudinal study of the effects of a gluten-free diet on glycemic control and weight gain in subjects with type 1 diabetes and celiac disease. *Diabetes Care* 25: 1117-1122
- Annibale B, Capurso G, Chistolini A, D'Ambrà G, DiGiulio E, Monarca B, DelleFave G (2001) Gastrointestinal causes of refractory iron deficiency anemia in patients without gastrointestinal symptoms. *Am J Med* 111: 439-445
- Annibale B, Lahner E, Chistolini A, Gallucci C, Di Giulio E, Capurso G, Luana O, Monarca B, Delle FG (2003) Endoscopic evaluation of the upper gastrointestinal tract is worthwhile in premenopausal women with iron-deficiency anaemia irrespective of menstrual flow. *Scand J Gastroenterol* 38: 239-245
- Annibale B, Severi C, Chistolini A, Antonelli G, Lahner E, Marcheggiano A, Iannoni C, Monarca B, Delle FG (2001) Efficacy of gluten-free diet alone on recovery from iron deficiency anemia in adult celiac patients. *Am J Gastroenterol* 96: 132-137
- Anson O, Weizman Z, Zeevi N (1990) Celiac disease: parental knowledge and attitudes of dietary compliance. *Pediatrics* 85: 98-103
- Arato A, Korner A, Veres G, Dezsofi A, Ujpal I, Madacsy L (2002) Frequency of coeliac disease in Hungarian children with type 1 diabetes mellitus. *Eur J Pediatr* 162: 1-5
- Artan R (1998) Antigliadin antibody measurement as a screening test for childhood coeliac disease. *Int Med J* 5: 209-212
- Ascher H, Hahn-Zoric M, Hanson LA, Kilander AF, Nilsson LA, Tlaskalova H (1996) Value of serologic markers for clinical diagnosis and population studies of coeliac disease. *Scandinavian Journal of Gastroenterology* 31: 61-67
- Ascher H, Lanner A, Kristiansson B (1990) A new laboratory kit for anti-gliadin IgA at diagnosis and follow-up of childhood celiac disease. *Journal of Pediatric Gastroenterology and Nutrition* 10: 443-450
- Askling J, Linet M, Gridley G, Halstensen TS, Ekstrom K, Ekblom A (2002) Cancer incidence in a population-based cohort of individuals hospitalized with celiac disease or dermatitis herpetiformis. *Gastroenterology* 123: 1428-1435
- Bahia M, Rabello A, Brasileiro FG, Penna FJ (2001) Serum antigliadin antibody levels as a screening criterion before jejunal biopsy indication for celiac disease in a developing country. *Brazilian Journal of Medical and Biological Research = Revista Brasileira De Pesquisas Medicas E Biologicas / Sociedade Brasileira De Biofisica ...Et Al* 34: 1415-1420
- Bao F, Yu L, Babu S, Wang T, Hoffenberg EJ, Rewers M, Eisenbarth GS (1999) One third of HLA DQ2 homozygous patients with type 1 diabetes express celiac disease-associated transglutaminase autoantibodies. *J Autoimmun* 13: 143-148
- Bardella MT, Fredella C, Prampolini L, Molteni N, Giunta AM, Bianchi PA (2000) Body composition and dietary intakes in adult celiac disease patients consuming a strict gluten-free diet. *Am J Clin Nutr* 72: 937-939
- Bardella MT, Molteni N, Cesana B, Baldassarri AR, Binanchi PA (1991) IgA antigliadin antibodies, cellobiose/mannitol sugar test, and carotenemia in the diagnosis of and screening for celiac disease. *Am J Gastroenterol* 86: 309-311
- Bardella MT, Molteni N, Quatrini M, Velio P, Ranzi T, Bianchi PA (1985) Clinical, biochemical and histological abnormalities in adult celiac patients on gluten-free diet. *Gastroenterol Clin Biol* 9: 787-789
- Bardella MT, Trovato C, Cesana BM, Pagliari C, Gebbia C, Peracchi M (2001) Serological markers for coeliac disease: Is it time to change? *Dig Liver Dis* 33: 426-431

- Barera G, Bianchi C, Calisti L, Cerutti F, Dammacco F, Frezza E, Illeni MT, Mistura L, Pocecco M, Prisco F (1991) Screening of diabetic children for coeliac disease with anti gliadin antibodies and HLA typing. *Arch Dis Child* 66: 491-494
- Barera G, Bonfanti R, Viscardi M, Bazzigaluppi E, Calori G, Meschi F, Bianchi C, Chiumello G (2002) Occurrence of celiac disease after onset of type 1 diabetes: a 6-year prospective longitudinal study. *Pediatrics* 109: 833-838
- Barera G, Mora S, Brambilla P, Ricotti A, Menni L, Beccio S, Bianchi C (2000) Body composition in children with celiac disease and the effects of a gluten-free diet: a prospective case-control study. *Am J Clin Nutr* 72: 71-75
- Bartholomeusz RC, Labrooy JT, Davidson GP, Hetzel P, Johnson RB, Shearman DJ (1990) Polymeric IgA antibody to gliadin in the serum of patients with coeliac disease. *J Gastroenterol Hepatol* 5: 675-681
- Berger R, Schmidt G (1996) Evaluation of six anti-gliadin antibody assays. *Journal of Immunological Methods* 191: 77-86
- Biagi F, Pezzimenti D, Campanella J, Vadacca GB, Corazza GR (2001) Endomysial and tissue transglutaminase antibodies in coeliac sera: a comparison not influenced by previous serological testing. *Scandinavian Journal of Gastroenterology* 36: 955-958
- Bode S, Gudmand-Hoyer E (1994) Evaluation of the gliadin antibody test for diagnosing coeliac disease. *Scandinavian Journal of Gastroenterology* 29: 148-152
- Bode S, Gudmand-Hoyer E (1996) Incidence and prevalence of adult coeliac disease within a defined geographic area in Denmark. *Scand J Gastroenterol* 31: 694-699
- Bode S, Weile B, Krasilnikoff PA, Gudmand-Hoyer E (1993) The diagnostic value of the gliadin antibody test in celiac disease in children: a prospective study. *J Pediatr Gastroenterol Nutr* 17: 260-264
- Boersma B, Houwen RHJ, Blum WF, van Doorn J, Wit JM (2002) Catch-up growth and endocrine changes in childhood celiac disease. Endocrine changes during catch-up growth. *Horm Res* 58: 57-65
- Bonamico M, Tiberti C, Picarelli A, Mariani P, Rossi D, Cipolletta E, Greco M, Tola MD, Sabbatella L, Carabba B, Magliocca FM, Strisciuglio P, Di Mario U (2001) Radioimmunoassay to detect antitransglutaminase autoantibodies is the most sensitive and specific screening method for celiac disease. *American Journal of Gastroenterology* 96: 1536-1540
- Book L, Zone JJ, Neuhausen SL (2003) Prevalence of celiac disease among relatives of sib pairs with celiac disease in U.S. families. *Am J Gastroenterol* 98: 377-381
- Borch K, Grodzinsky E, Petersson F, Jonsson K-A, Mardh S, Valdimarsson T (2000) Prevalence of coeliac disease and relations to *Helicobacter pylori* infection and duodenitis in a Swedish adult population sample: A histomorphological and serological survey. *Inflammopharmacology* 8: 341-350
- Bottaro G, Volta U, Spina M, Rotolo N, Sciacca A, Musumeci S (1997) Antibody pattern in childhood celiac disease. *Journal of Pediatric Gastroenterology and Nutrition* 24: 559-562
- Burgin-Wolff A, Gaze H, Hadziselimovic F, Huber H, Lentze MJ, Nussle D, Reymond-Berthet C (1991) Anti gliadin and antiendomysium antibody determination for coeliac disease. *Arch Dis Child* 66: 941-947
- Calero P, Ribes-Koninckx C, Albiach V, Carles C, Ferrer J (1996) IgA anti gliadin antibodies as a screening method for nonovert celiac disease in children with insulin-dependent diabetes mellitus. *J Pediatr Gastroenterol Nutr* 23: 29-33
- Carlsson AK, Axelsson IE, Borulf SK, Bredberg AC, Ivarsson SA (2001) Serological screening for celiac disease in healthy 2.5-year-old children in Sweden. *Pediatrics* 107: 42-45
- Carroccio A, Iacono G, D'Amico D, Cavataio F, Teresi S, Caruso C, Di Prima L, Colombo A, D'Arpa F, Florena A, Notarbartolo A, Montalto G (2002) Production of anti-endomysial antibodies in cultured duodenal mucosa: usefulness in coeliac disease diagnosis. *Scandinavian Journal of Gastroenterology* 37: 32-38
- Carroccio A, Iacono G, Montalto G, Cavataio F, Soresi M, Kazmierska I, Notarbartolo A (1993) Immunologic and absorptive tests in celiac disease: can they replace intestinal biopsies? *Scandinavian Journal of Gastroenterology* 28: 673-676
- Carroccio A, Vitale G, Di Prima L, Chifari N, Napoli S, La Russa C, Gulotta G, Averna MR, Montalto G, Mansueto S, Notarbartolo A (2002) Comparison of anti-transglutaminase ELISAs and an anti-endomysial antibody assay in the diagnosis of celiac disease: a prospective study. *Clin Chem* 48: 1546-1550
- Cataldo F, Lio D, Marino V, Picarelli A, Ventura A, Corazza GR (2000) IgG(1) antiendomysium and IgG antitissue transglutaminase (anti-tTG) antibodies in coeliac patients with selective IgA deficiency. Working Groups on Celiac Disease of SIGEP and Club del Tenue. *Gut* 47: 366-369

- Catassi C, Fabiani E, Ratsch IM, et al. (1996) The coeliac iceberg in Italy. A multicentre anti-gliadin antibodies screening for coeliac disease in school-age subjects. *Acta Paediatr* 412: 29-35
- Catassi C, Fanciulli G, D'Appello AR, El Asmar R, Rondina C, Fabiani E, Bearzi I, Coppa G, V (2000) Anti-endomysium versus anti-gliadin antibodies in screening the general population for coeliac disease. *Scand J Gastroenterol* 35: 732-736
- Chan AW, Butzner JD, McKenna R, Fritzler MJ (2001) Tissue transglutaminase enzyme-linked immunosorbent assay as a screening test for celiac disease in pediatric patients. *Pediatrics* 107: E8
- Chartrand LJ, Agulnik J, Vanounou T, Russo PA, Baehler P, Seidman EG (1997) Effectiveness of anti-gliadin antibodies as a screening test for celiac disease in children. *CMAJ* 157: 527-533
- Chirido FG, Rumbo M, Carabajal P, Castagnino N, Mavromatopulos E, Cirincione V, Anon MC, Fossati CA (1999) Analysis of anti-gliadin antibodies by immunoblot analysis and enzyme-linked immunosorbent assay using gliadin fractions as antigens. *Journal of Pediatric Gastroenterology and Nutrition* 29: 171-177
- Chirido FG, Rumbo M, Carabajal P, Mavromatopulos E, Castagnino N, Anon MC, Fossati CA (2000) Determination of anti-omega-gliadin antibodies in serologic tests for coeliac disease. *Scandinavian Journal of Gastroenterology* 35: 508-516
- Ciacci C, Cirillo M, Auriemma G, Di Dato G, Sabbatini F, Mazzacca G (1996) Celiac disease and pregnancy outcome. *Am J Gastroenterol* 91: 718-722
- Collin P, Reunala T, Rasmussen M, Kyronpalo S, Pehkonen E, Laippala P, Maki M (1997) High incidence and prevalence of adult coeliac disease. Augmented diagnostic approach. *Scand J Gastroenterol* 32: 1129-1133
- Collin P, Syrjanen J, Partanen J, Pasternack A, Kaukinen K, Mustonen J (2002) Celiac disease and HLA DQ in patients with IgA nephropathy. *American Journal of Gastroenterology* 97: 2572-2576
- Corazza GR, Andreani ML, Biagi F, Corrao G, Pretolani S, Giulianelli G, Ghironzi G, Gasbarrini G (1997) The smaller size of the 'coeliac iceberg' in adults. *Scand J Gastroenterol* 32: 917-919
- Corrao G, Corazza GR, Bagnardi V, Brusco G, Ciacci C, Cottone M, Sategna GC, Usai P, Cesari P, Pelli MA, Loperfido S, Volta U, Calabro A, Certo M (2001) Mortality in patients with coeliac disease and their relatives: a cohort study. *Lancet* 358: 356-361
- Corrao G, Usai P, Galatola G, Ansaldi N, Meini A, Pelli MA, Castellucci G, Corazza GR (1996) Estimating the incidence of coeliac disease with capture-recapture methods within four geographic areas in Italy. *J Epidemiol Community Health* 50: 299-305
- Cottone M, Termini A, Oliva L, Magliocco A, Marrone C, Orlando A, Pinzone F, Di Mitri R, Rosselli M, Rizzo A, Pagliaro L (1999) Mortality and causes of death in celiac disease in a Mediterranean area. *Dig Dis Sci* 44: 2538-2541
- Cronin CC, Feighery A, Ferriss JB, Liddy C, Shanahan F, Feighery C (1997) High prevalence of celiac disease among patients with insulin-dependent (type I) diabetes mellitus. *Am J Gastroenterol* 92: 2210-2212
- Csizmadia CGDS, Mearin ML, Von Blomberg BME, Brand R, Verloove-Vanhorick SP (1999) An iceberg of childhood coeliac disease in the Netherlands. *Lancet* 353: 813-814
- Dahele A, Kingstone K, Bode J, Anderson D, Ghosh S (2001) Anti-endomysial antibody negative celiac disease: does additional serological testing help? *Digestive Diseases and Sciences* 46: 214-221
- Dahele A, V, Aldhous MC, Humphreys K, Ghosh S (2001) Serum IgA tissue transglutaminase antibodies in coeliac disease and other gastrointestinal diseases. *Q J Med* 94: 195-205
- Day AS, Cook HB, Whitehead M, Abbott GD (2000) Anti-endomysial and anti-gliadin antibodies in screening for coeliac disease in children at greater risk of developing coeliac disease. *N Z Med J* 113: 412-413
- De Block CE, De L, I, Vertommen JJ, Rooman RP, Du CM, V, Van Campenhout CM, Weyler JJ, Winnock F, Van Autreve J, Gorus FK (2001) Beta-cell, thyroid, gastric, adrenal and coeliac autoimmunity and HLA-DQ types in type 1 diabetes. *Clin Exp Immunol* 126: 236-241
- De Vitis, I, Ghirlanda G, Gasbarrini G (1996) Prevalence of coeliac disease in type I diabetes: a multicentre study. *Acta Paediatr* 412: 56-57
- Delco F, El Serag HB, Sonnenberg A (1999) Celiac sprue among US military veterans: associated disorders and clinical manifestations. *Dig Dis Sci* 44: 966-972
- Di Leo M, Weisz G, Ansaldi BN (1999) Serum and salivary anti-endomysium antibodies in the screening of coeliac disease. *Panminerva Medica* 41: 68-71
- Dickey W, Hughes DF, McMillan SA (2000) Disappearance of endomysial antibodies in treated celiac disease does not indicate histological recovery. *Am J Gastroenterol* 95: 712-714

- Dickey W, Kenny BD, McMillan SA, Porter KG, McConnell JB (1997) Gastric as well as duodenal biopsies may be useful in the investigation of iron deficiency anaemia. *Scand J Gastroenterol* 32: 469-472
- Dickey W, McMillan SA, Bharucha C, Porter KG (1992) Antigliadin antibodies in blood donors in Northern Ireland. *Eur J Gastroenterol Hepatol* 4: 739-741
- Dickey W, McMillan SA, Hughes DF (2001) Sensitivity of serum tissue transglutaminase antibodies for endomysial antibody positive and negative coeliac disease. *Scandinavian Journal of Gastroenterology* 36: 511-514
- Fabiani E, Catassi C (2001) The serum IgA class anti-tissue transglutaminase antibodies in the diagnosis and follow up of coeliac disease. Results of an international multi-centre study. International Working Group on Eu-tTG. *Eur J Gastroenterol Hepatol* 13: 659-665
- Fabiani E, Catassi C, Villari A, Gismondi P, Pierdomenico R, Ratsch IM, Coppa G, V, Giorgi PL (1996) Dietary compliance in screening-detected coeliac disease adolescents. *Acta Paediatr* 412: 65-67
- Fabiani E, Taccari LM, Ratsch IM, Di Giuseppe S, Coppa G, V, Catassi C (2000) Compliance with gluten-free diet in adolescents with screening-detected coeliac disease: a 5-year follow-up study. *J Pediatr* 136: 841-843
- Falth-Magnusson K, Jansson G, Stenhammar L, Magnusson KE (1994) Serum food antibodies analyzed by enzyme-linked immunosorbent assay (ELISA) and diffusion-in-gel (DIG)-ELISA methods in children with and without coeliac disease. *Journal of Pediatric Gastroenterology and Nutrition* 18: 56-62
- Farre C, Humbert P, Vilar P, Varea V, Aldeguer X, Carnicer J, Carballo M, Gassull MA (1999b) Serological markers and HLA-DQ2 haplotype among first-degree relatives of coeliac patients. *Catalonian Coeliac Disease Study Group. Dig Dis Sci* 44: 2344-2349
- Fasano A, Berti I, Gerarduzzi T, Not T, Colletti RB, Drago S, Elitsur Y, Green PHR, Guandalini S, Hill ID, Pietzak M, Ventura A, Thorpe M, Kryszak D, Fornaroli F, Wasserman SS, Murray JA, Horvath K (2003) Prevalence of coeliac disease in at-risk and not-at-risk groups in the United States: a large multicenter study. *Arch Intern Med* 163: 286-292
- Fickling WE, McFarlane XA, Bhalla AK, Robertson DA (2001) The clinical impact of metabolic bone disease in coeliac disease. *Postgrad.Med J* 77: 33-36
- Fitzpatrick KP, Sherman PM, Ipp M, Saunders N, Macarthur C (2001) Screening for coeliac disease in children with recurrent abdominal pain. *J Pediatr Gastroenterol Nutr* 33: 250-252
- Fotoulaki M, Nousia-Arvanitakis S, Augoustidou-Savvopoulou P, Kanakoudi-Tsakalides F, Zaramboukas T, Vlachonikolis J (1999) Clinical application of immunological markers as monitoring tests in coeliac disease. *Dig Dis Sci* 44: 2133-2138
- Fraser-Reynolds KA, Butzner JD, Stephure DK, Trussell RA, Scott RB (1998) Use of immunoglobulin A-antiendomysial antibody to screen for coeliac disease in North American children with type 1 diabetes. *Diabetes Care* 21: 1985-1989
- Gillett HR, Freeman HJ (2000) Comparison of IgA endomysium antibody and IgA tissue transglutaminase antibody in coeliac disease. *Canadian Journal of Gastroenterology = Journal Canadien De Gastroenterologie* 14: 668-671
- Gillett PM, Gillett HR, Israel DM, Metzger DL, Stewart L, Chanoine JP, Freeman HJ (2001) High prevalence of coeliac disease in patients with type 1 diabetes detected by antibodies to endomysium and tissue transglutaminase. *Can J Gastroenterol* 15: 297-301
- Goncz J, Skerritt JH, Mitchell JD (1991) A reliable screening test for coeliac disease: enzyme-linked immunosorbent assay to detect anti-gliadin antibodies in serum. *Australian and New Zealand Journal of Medicine* 21: 723-731
- Gonzalez D, Sugai E, Gomez JC, Oliveri MB, Gomez AC, Vega E, Bagur A, Mazure R, Maurino E, Bai JC, Mautalen C (2002) Is it necessary to screen for coeliac disease in postmenopausal osteoporotic women? *Calcif Tissue Int* 71: 141-144
- Greco L, Mayer M, Ciccarelli G, Troncone R, Auricchio S (1997) Compliance to a gluten-free diet in adolescents, or "what do 300 coeliac adolescents eat every day?". *Ital J Gastroenterol Hepatol* 29: 305-310
- Green PH, Shane E, Rotterdam H, Forde KA, Grossbard L (2000) Significance of unsuspected coeliac disease detected at endoscopy. *Gastroenterol Int* 51: 60-65
- Green PHR, Fleischauer AT, Bhagat G, Goyal R, Jabri B, Neugut AI (2003) Risk of malignancy in patients with coeliac disease. *Am J Med* 115: 191-195
- Grodzinsky E (1996) Screening for coeliac disease in apparently healthy blood donors. *Acta Paediatr* 412: 36-38
- Hallstrom O (1989) Comparison of IgA-class reticulin and endomysium antibodies in coeliac disease and dermatitis herpetiformis. *Gut* 30: 1225-1232
- Hansen D, Bennedbaek FN, Hansen LK, Hoier-Madsen M, Hegedu LS, Jacobsen BB, Husby S (2001) High prevalence of coeliac disease in Danish children with type I diabetes mellitus. *Acta Paediatr* 90: 1238-1243

- Hansson T, Dahlbom I, Hall J, Holtz A, Elfman L, Dannaeus A, Klareskog L (2000) Antibody reactivity against human and guinea pig tissue transglutaminase in children with celiac disease. *Journal of Pediatric Gastroenterology and Nutrition* 30: 379-384
- Hawkes ND, Swift GL, Smith PM, Jenkins HR (2000) Incidence and presentation of coeliac disease in South Glamorgan. *Eur J Gastroenterol Hepatol* 12: 345-349
- Hill I, Fasano A, Schwartz R, Counts D, Glock M, Horvath K (2000) The prevalence of celiac disease in at-risk groups of children in the United States. *J Pediatr* 136: 86-90
- Hin H, Bird G, Fisher P, Mahy N, Jewell D (1999) Coeliac disease in primary care: case finding study. *BMJ* 318: 164-167
- Hoffenberg EJ, MacKenzie T, Barriga KJ, Eisenbarth GS, Bao F, Haas JE, Erlich H, Bugawan TL, Sokol RJ, Taki I, Norris JM, Rewers M (2003) A prospective study of the incidence of childhood celiac disease. *J Pediatr* 143: 308-314
- Hogberg L, Falth-Magnusson K, Grodzinsky E, Stenhammar L (2003) Familial prevalence of coeliac disease: A twenty-year follow-up study. *Scand J Gastroenterol* 38: 61-65
- Hogberg L, Grodzinsky E, Stenhammar L (2003) Better dietary compliance in patients with coeliac disease diagnosed in early childhood. *Scand J Gastroenterol* 38: 751-754
- Holm KH (1993) Correlation of HLA-DR alleles to jejunal mucosal morphology in healthy first-degree relatives of coeliac disease patients. *Eur J Gastroenterol Hepatol* 5: 35-39
- Holmes GK, Prior P, Lane MR, Pope D, Allan RN (1989) Malignancy in coeliac disease--effect of a gluten free diet. *Gut* 30: 333-338
- Hovdenak N, Hovlid E, Aksnes L, Fluge G, Erichsen MM, Eide J (1999) High prevalence of asymptomatic coeliac disease in Norway: a study of blood donors. *Eur J Gastroenterol Hepatol* 11: 185-187
- Howard MR, Turnbull AJ, Morley P, Hollier P, Webb R, Clarke A (2002) A prospective study of the prevalence of undiagnosed coeliac disease in laboratory defined iron and folate deficiency. *J Clinl Path* 55: 754-757
- Iltanen S, Holm K, Partanen J, Laippala P, Maki M (1999) Increased density of jejunal gammadelta+ T cells in patients having normal mucosa--marker of operative autoimmune mechanisms? *Autoimmunity* 29: 179-187
- Iltanen S, Rantala I, Laippala P, Holm K, Partanen J, Maki M (1999) Expression of HSP-65 in jejunal epithelial cells in patients clinically suspected of coeliac disease. *Autoimmunity* 31: 125-132
- Ivarsson A, Persson LA, Juto P, Peltonen M, Suhr O, Hernell O (1999) High prevalence of undiagnosed coeliac disease in adults: a Swedish population-based study. *J Intern Med* 245: 63-68
- Ivarsson A, Persson LA, Nystrom L, Hernell O (2003) The Swedish coeliac disease epidemic with a prevailing twofold higher risk in girls compared to boys may reflect gender specific risk factors. *Eur J Epidemiol* 18: 677-684
- Jackson PT, Glasgow JF, Thom R (1985) Parents' understanding of coeliac disease and diet. *Arch Dis Child* 60: 672-674
- Jaeger C, Hatziagelaki E, Petzoldt R, Bretzel RG (2001) Comparative analysis of organ-specific autoantibodies and coeliac disease--associated antibodies in type 1 diabetic patients, their first-degree relatives, and healthy control subjects. *Diabetes Care* 24: 27-32
- Jansen Th TLA, Mulder CJJ, Karssen PHZ, Wagenaar CGJ (1993) Epidemiological survey of the Dutch Coeliac Disease Society: An update 1992. *Eur J Gastroenterol Hepatol* 5: 73-78
- Johnston SD, Watson RG, McMillan SA, Sloan J, Love AH (1998) Coeliac disease detected by screening is not silent--simply unrecognized. *Q J Med* 91: 853-860
- Kaukinen K, Collin P, Mykkanen AH, Partanen J, Maki M, Salmi J (1999) Celiac disease and autoimmune endocrinologic disorders. *Dig Dis Sci* 44: 1428-1433
- Kaukinen K, Turjanmaa K, Maki M, Partanen J, Venalainen R, Reunala T, Collin P (2000) Intolerance to cereals is not specific for coeliac disease. *Scandinavian Journal of Gastroenterology* 35: 942-946
- Kaukinen K, Sulkanen S, Maki M, Collin P (2002) IgA-class transglutaminase antibodies in evaluating the efficacy of gluten-free diet in coeliac disease. *Eur J Gastroenterol Hepatol* 14: 311-315
- Kemppainen TA, Kosma VM, Janatuinen EK, Julkunen RJ, Pikkarainen PH, Uusitupa M, I (1998) Nutritional status of newly diagnosed celiac disease patients before and after the institution of a celiac disease diet--association with the grade of mucosal villous atrophy. *Am J Clin Nutr* 67: 482-487
- Kepeczyk T, Kadakia SC (1995) Prospective evaluation of gastrointestinal tract in patients with iron-deficiency anemia. *Dig Dis Sci* 40: 1283-1289

- Kolho KL, Farkkila MA, Savilahti E (1998) Undiagnosed coeliac disease is common in Finnish adults. *Scand J Gastroenterol* 33: 1280-1283
- Kolho KL, Savilahti E (1997) IgA endomysium antibodies on human umbilical cord: an excellent diagnostic tool for celiac disease in childhood. *Journal of Pediatric Gastroenterology and Nutrition* 24: 563-567
- Kordonouri O, Dieterich W, Schuppan D, Weibert G, Muller C, Sarioglu N, Becker M, Danne T (2000) Autoantibodies to tissue transglutaminase are sensitive serological parameters for detecting silent coeliac disease in patients with Type 1 diabetes mellitus. *Diabet Med* 17: 441-444
- Korponay-Szabo I, Kovacs J, Lorincz M, Torok E, Goracz G (1998) Families with multiple cases of gluten-sensitive enteropathy. *Z Gastroenterol* 36: 553-558
- Kotze LM, Utiyama SR, Nisihara RM, Zeni MP, de Sena MG, Amarante HM (2001) Antiendomysium antibodies in Brazilian patients with celiac disease and their first-degree relatives. *Arq Gastroenterol* 38: 94-103
- Kumar V, Lerner A, Valeski JE, Beutner EH, Chorzelski TP, Rossi T (1989) Endomysial antibodies in the diagnosis of celiac disease and the effect of gluten on antibody titers. *Immunological Investigations* 18: 533-544
- Ladinsler B, Rossipal E, Pittschieler K (1994) Endomysium antibodies in coeliac disease: an improved method. *Gut* 35: 776-778
- Lamontagne P, West GE, Galibois I (2001) Quebecers with celiac disease: analysis of dietary problems. *Canadian Journal of Dietetic Practice and Research - a Publication of Dietitians of Canada = Revue Canadienne De La Pratique Et De La Recherche En Dietetique - Une Publication Des Dietetistes Du C* 62: 175-181
- Lampasona V, Bonfanti R, Bazzigaluppi E, Venerando A, Chiumello G, Bosi E, Bonifacio E (1999) Antibodies to tissue transglutaminase C in type I diabetes. *Diabetologia* 42: 1195-1198
- Lee SK, Lo W, Memeo L, Rotterdam H, Green Peter HR (2003) Duodenal histology in patients with celiac disease after treatment with a gluten-free diet. *Gastrointest Endosc* 57: 187-191
- Lerner A, Kumar V, Iancu TC (1994) Immunological diagnosis of childhood coeliac disease: comparison between antigliadin, antireticulin and antiendomysial antibodies. *Clinical and Experimental Immunology* 95: 78-82
- Li Voon Chong JSW, Leong KS, Wallymahmed M, Sturgess R, MacFarlane IA (2002) Is coeliac disease more prevalent in young adults with coexisting Type 1 diabetes mellitus and autoimmune thyroid disease compared with those with Type 1 diabetes mellitus alone? *Diabet Med* 19: 334-337
- Lindberg T, Nilsson LA, Borulf S, Cavell B, Fallstrom SP, Jansson U, Stenhammar L, Stintzing G (1985) Serum IgA and IgG gliadin antibodies and small intestinal mucosal damage in children. *Journal of Pediatric Gastroenterology and Nutrition* 4: 917-922
- Lindh E, Ljunghall S, Larsson K, Lavo B (1992) Screening for antibodies against gliadin in patients with osteoporosis. *J Intern Med* 231: 403-406
- Lindquist BL, Rogozinski T, Moi H, Danielsson D, Olcen P (1994) Endomysium and gliadin IgA antibodies in children with coeliac disease. *Scandinavian Journal of Gastroenterology* 29: 452-456
- Ljungman G, Myrdal U (1993) Compliance in teenagers with coeliac disease--a Swedish follow-up study. *Acta Paediatr* 82: 235-238
- Logan RF, Rifkind EA, Turner ID, Ferguson A (1989) Mortality in celiac disease. *Gastroenterology* 97: 265-271
- Lopez-Rodriguez MJ, Canal Macias ML, Lavado Garcia JM, Sanchez BM, Robledo AP, Pedrera Zamorano JD (2003) Epidemiological changes in diagnosed coeliac disease in a population of Spanish children. *Acta Paediatr* 92: 165-169
- Lorini R, Scotta MS, Cortona L, Avanzini MA, Vitali L, De Giacomo C, Scaramuzza A, Severi F (1996) Celiac disease and type I (insulin-dependent) diabetes mellitus in childhood: follow-up study. *J Diabetes Complications* 10: 154-159
- Magazzu G, Bottaro G, Cataldo F, Iacono G, Di Donato F, Patane R, Cavataio F, Maltese I, Romano C, Arco A (1994) Increasing incidence of childhood celiac disease in Sicily: results of a multicenter study. *Acta Paediatr* 83: 1065-1069
- Maki M, Holm K (1990) Incidence and prevalence of coeliac disease in Tampere. Coeliac disease is not disappearing. *Acta Paediatr Scand* 79: 980-982
- Maki M, Holm K, Lipsanen V, Hallstrom O, Viander M, Collin P, Savilahti E, Koskimies S (1991) Serological markers and HLA genes among healthy first-degree relatives of patients with coeliac disease. *Lancet* 338: 1350-1353

- Maki M, Mustalahti K, Kokkonen J, Kulmala P, Haapalahti M, Karttunen T, Ilonen J, Laurila K, Dahlbom I, Hansson T, Hopfl P, Knip M (2003) Prevalence of Celiac disease among children in Finland. *New Engl J Med* 348: 2517-2524
- Martini S, Mengozzi G, Aimo G, Giorda L, Pagni R, Guidetti CS (2002) Comparative evaluation of serologic tests for celiac disease diagnosis and follow-up. *Clin Chem* 48: 960-963
- Mather KJ, Meddings JB, Beck PL, Scott RB, Hanley DA (2001) Prevalence of IgA-antiendomysial antibody in asymptomatic low bone mineral density. *Am J Gastroenterol* 96: 120-125
- Mazzetti dP, Giorgetti GM, Gregori M, De Simone M, Leonardi C, Barletta PA, Ricciardi MM, Sandri G (1992) Subclinical coeliac disease. *Ital J Gastroenterol* 24: 352-354
- McIntyre AS, Long RG (1993) Prospective survey of investigations in outpatients referred with iron deficiency anaemia. *Gut* 34: 1102-1107
- McMillan SA, Haughton DJ, Biggart JD, Edgar JD, Porter KG, McNeill TA (1991) Predictive value for coeliac disease of antibodies to gliadin, endomysium, and jejunum in patients attending for jejunal biopsy. *Bmj (Clinical Research Ed.)* 303: 1163-1165
- McNicholl B, Egan-Mitchell B, Stevens F, Keane R, Baker S, McCarthy CF, Fottrell PF (1976) Mucosal recovery in treated childhood celiac disease (gluten-sensitive enteropathy). *J Pediatr* 89: 418-424
- Meini A, Pillan NM, Villanacci V, Monafò V, Ugazio AG, Plebani A (1996) Prevalence and diagnosis of celiac disease in IgA-deficient children. *Annals of Allergy, Asthma & Immunology - Official Publication of the American College of Allergy, Asthma, & Immunology* 77: 333-336
- Moreno ML, Vazquez H, Mazure R, Smecuol E, Niveloni S, Pedreira S, Sugai E, Maurino E, Gomez JC, Bai JC (2004) Stratification of bone fracture risk in patients with celiac disease. *Clin Gastroenterol.Hepatol.* 2: 127-134
- Mustalahti K, Sulkanen S, Holopainen P, Laurila K, Collin P, Partanen J, Maki M (2002) Coeliac disease among healthy members of multiple case coeliac disease families. *Scand J Gastroenterol* 37: 161-165
- Nielsen OH, Jacobsen O, Pedersen ER, Rasmussen SN, Petri M, Laulund S, Jarnum S (1985) Non-tropical sprue. Malignant diseases and mortality rate. *Scand J Gastroenterol* 20: 13-18
- Not T, Horvath K, Hill ID, Partanen J, Hamed A, Magazzu G, Fasano A (1998) Celiac disease risk in the USA: high prevalence of antiendomysium antibodies in healthy blood donors. *Scand J Gastroenterol* 33: 494-498
- Nuti R, Martini G, Valenti R, Giovani S, Salvadori S, Avanzati A (2001) Prevalence of undiagnosed coeliac syndrome in osteoporotic women. *J Intern Med* 250: 361-366
- Oxentenko AS, Grisolano SW, Murray JA, Burgart LJ, Dierkhising RA, Alexander JA (2002) The insensitivity of endoscopic markers in celiac disease. *Am J Gastroenterol* 97: 933-938
- Pacht A, Sinai N, Hornstein L, Kumar V, Ish-Shalom N, Lerner A (1995) The diagnostic reliability of anti-endomysial antibody in celiac disease: the north Israel experience. *Isr J Med Sci* 31: 218-220
- Page SR, Lloyd CA, Hill PG, Peacock I, Holmes GK (1994) The prevalence of coeliac disease in adult diabetes mellitus. *Q J Med* 87: 631-637
- Picarelli A, Sabbatella L, Di Tola M, Gabrielli F, Greco R, Di Cello T, Mastracchio A, Anania MC (2000) Celiac disease diagnosis in misdiagnosed children. *Pediatric Research* 48: 590-592
- Pittschieler K, Gentili L, Niederhofer H (2003) Onset of coeliac disease: A prospective longitudinal study. *Acta Paediatr Int J Paediatr* 92: 1149-1152
- Pittschieler K, Ladinsler B (1996) Coeliac disease: screened by a new strategy. *Acta Paediatr* 412: 42-45
- Poddar U, Thapa BR, Nain CK, Prasad A, Singh K (2002) Celiac disease in India: are they true cases of celiac disease? *J Pediatr Gastroenterol Nutr* 35: 508-512
- Polvi A, Eland C, Koskimies S, Maki M, Partanen J (1996) HLA DQ and DP in Finnish families with celiac disease. *Eur J Immunogenet* 23: 221-234
- Ransford Rupert AJ, Hayes M, Palmer M, Hall MJ (2002) A controlled, prospective screening study of celiac disease presenting as iron deficiency anemia. *J Clin Gastroenterol* 35: 228-233
- Rea F, Polito C, Marotta A, Di Toro A, Iovene A, Collini R, Rea L, Sessa G (1996) Restoration of body composition in celiac children after one year of gluten-free diet. *J Pediatr Gastroenterol Nutr* 23: 408-412
- Rensch MJ, Merenich JA, Lieberman M, Long BD, Davis DR, McNally PR (1996) Gluten-sensitive enteropathy in patients with insulin-dependent diabetes mellitus. *Ann Intern Med* 124: 564-567

- Rich EJ, Christie DL (1990) Anti-gliadin antibody panel and xylose absorption test in screening for celiac disease. *Journal of Pediatric Gastroenterology and Nutrition* 10: 174-178
- Riestra S, Fernandez E, Rodrigo L, Garcia S, Ocio G (2000) Prevalence of Coeliac disease in the general population of northern Spain. Strategies of serologic screening. *Scand J Gastroenterol* 35: 398-402
- Robinson DC, Watson AJ, Wyatt EH, Marks JM, Roberts DF (1971) Incidence of small-intestinal mucosal abnormalities and of clinical coeliac disease in the relatives of children with coeliac disease. *Gut* 12: 789-793
- Roldan MB, Barrio R, Roy G, Parra C, Alonso M, Yturriaga R, Camarero C (1998) Diagnostic value of serological markers for celiac disease in diabetic children and adolescents. *J Pediatr Endocrinol Metab* 11: 751-756
- Rolles CJ, Myint TO, Sin WK, Anderson M (1974) Proceedings: Family study of coeliac disease. *Gut* 15: 827
- Rossi TM, Albini CH, Kumar V (1993) Incidence of celiac disease identified by the presence of serum endomysial antibodies in children with chronic diarrhea, short stature, or insulin-dependent diabetes mellitus. *J Pediatr* 123: 262-264
- Rostami K, Mulder CJ, van Overbeek FM, Kerckhaert J, Meijer JW, von Blomberg MB, Heymans HS (2000) Should relatives of coeliacs with mild clinical complaints undergo a small-bowel biopsy despite negative serology? *Eur J Gastroenterol Hepatol* 12: 51-55
- Rostami K, Mulder CJ, Werre JM, van Beukelen FR, Kerckhaert J, Crusius JB, Pena AS, Willekens FL, Meijer JW (1999) High prevalence of celiac disease in apparently healthy blood donors suggests a high prevalence of undiagnosed celiac disease in the Dutch population. *Scand J Gastroenterol* 34: 276-279
- Russo PA, Chartrand LJ, Seidman E (1999) Comparative analysis of serologic screening tests for the initial diagnosis of celiac disease. *Pediatrics* 104: 75-78
- Rutz R, Ritzler E, Fierz W, Herzog D (2002) Prevalence of asymptomatic celiac disease in adolescents of eastern Switzerland. *Swiss Med Wkly* 132: 43-47
- Sacchetti L, Calcagno G, Ferrajolo A, Sarrantonio C, Troncone R, Micillo M, Auricchio S, Salvatore F (1998) Discrimination between celiac and other gastrointestinal disorders in childhood by rapid human lymphocyte antigen typing. *Clinical Chemistry* 44: 1755-1757
- Salmaso C, Ocmant A, Pesce G, Altrinetti V, Montagna P, Descalzi D, Martino S, Bagnasco M, Mascart F (2001) Comparison of ELISA for tissue transglutaminase autoantibodies with antiendomysium antibodies in pediatric and adult patients with celiac disease. *Allergy* 56: 544-547
- Sanders DS, Patel D, Stephenson TJ, Ward AM, McCloskey EV, Hadjivassiliou M, Lobo AJ (2003) A primary care cross-sectional study of undiagnosed adult coeliac disease. *Eur J Gastroenterol Hepatol* 15: 407-413
- Sategna-Guidetti C, Grosso S (1994) Changing pattern in adult coeliac disease: A 24-year survey. *Eur J Gastroenterol Hepatol* 6: 15-19
- Sategna-Guidetti C, Grosso S, Bruno M, Grosso SB (1995) Comparison of serum anti-gliadin, anti-endomysium, and anti-jejenum antibodies in adult celiac sprue. *Journal of Clinical Gastroenterology* 20: 17-21
- Sategna-Guidetti C, Grosso S, Bruno M, Grosso SB (1996) Reliability of immunologic markers of celiac sprue in the assessment of mucosal recovery after gluten withdrawal. *J Clin Gastroenterol* 23: 101-104
- Sategna-Guidetti C, Volta U, Ciacci C, Usai P, Carlino A, De Franceschi L, Camera A, Pelli A, Brossa C (2001) Prevalence of thyroid disorders in untreated adult celiac disease patients and effect of gluten withdrawal: an Italian multicenter study. *Am J Gastroenterol* 96: 751-757
- Saukkonen T, Savilahti E, Reijonen H, Ilonen J, Tuomilehto-Wolf E, Akerblom HK (1996) Coeliac disease: frequent occurrence after clinical onset of insulin-dependent diabetes mellitus. *Childhood Diabetes in Finland Study Group. Diabet Med* 13: 464-470
- Saukkonen T, Vaisanen S, Akerblom HK, Savilahti E (2002) Coeliac disease in children and adolescents with type 1 diabetes: a study of growth, glycaemic control, and experiences of families. *Acta Paediatr* 91: 297-302
- Sblattero D, Berti I, Trevisiol C, Marzari R, Tommasini A, Bradbury A, Fasano A, Ventura A, Not T (2000) Human recombinant tissue transglutaminase ELISA: an innovative diagnostic assay for celiac disease. *American Journal of Gastroenterology* 95: 1253-1257
- Scalici C, Manzoni D, Licastro G, Varia F, Di Prima L, Vitali R (2003) Reliability of EMA assay in the evaluation of gluten-free diet compliance in celiac patients during follow-up. *Acta Med Mediterr* 19: 67-69
- Schober E, Bittmann B, Granditsch G, Huber WD, Huppe A, Jager A, Oberhuber G, Rami B, Reichel G (2000) Screening by anti-endomysium antibody for celiac disease in diabetic children and adolescents in Austria. *J Pediatr Gastroenterol Nutr* 30: 391-396

- Selby WS, Gallagher ND (1979) Malignancy in a 19-year experience of adult celiac disease. *Dig Dis Sci* 24: 684-688
- Selby WS, Painter D, Collins A, Faulkner-Hogg KB, Loblay RH (1999) Persistent mucosal abnormalities in coeliac disease are not related to the ingestion of trace amounts of gluten. *Scand J Gastroenterol* 34: 909-914
- Sigurs N, Johansson C, Elfstrand PO, Viander M, Lanner A (1993) Prevalence of coeliac disease in diabetic children and adolescents in Sweden. *Acta Paediatr* 82: 748-751
- Sjoberg K, Alm R, Ivarsson SA, Lindstrom C, Eriksson S (1994) Prevalence and clinical significance of gliadin antibodies in healthy children and adults. *Scand J Gastroenterol* 29: 248-254
- Sjoberg K, Eriksson KF, Bredberg A, Wassmuth R, Eriksson S (1998) Screening for coeliac disease in adult insulin-dependent diabetes mellitus. *J Intern Med* 243: 133-140
- Sjoberg K, Eriksson S (1999) Regional differences in coeliac disease prevalence in Scandinavia? *Scand J Gastroenterol* 34: 41-45
- Smecuol E, Gonzalez D, Mautalen C, Siccardi A, Cataldi M, Niveloni S, Mazure R, Vazquez H, Pedreira S, Soifer G, Boerr LA, Maurino E, Bai JC (1997) Longitudinal study on the effect of treatment on body composition and anthropometry of celiac disease patients. *Am J Gastroenterol* 92: 639-643
- Spiekerkoetter U, Seissler J, Wendel U (2002) General screening for celiac disease is advisable in children with type 1 diabetes. *Horm Metab Res* 34: 192-195
- Stokes PL, Ferguson R, Holmes GK, Cooke WT (1976) Familial aspects of coeliac disease. *Quarterly Journal of Medicine* 45: 567-582
- Sulkanen S, Collin P, Laurila K, Maki M (1998) IgA- and IgG-class antihuman umbilical cord antibody tests in adult coeliac disease. *Scandinavian Journal of Gastroenterology* 33: 251-254
- Sulkanen S, Halttunen T, Laurila K, Kolho KL, Korponay-Szabo IR, Sarnesto A, Savilahti E, Collin P, Maki M (1998) Tissue transglutaminase autoantibody enzyme-linked immunosorbent assay in detecting celiac disease. *Gastroenterology* 115: 1322-1328
- Talal AH, Murray JA, Goeken JA, Sivitz W, I (1997) Celiac disease in an adult population with insulin-dependent diabetes mellitus: use of endomysial antibody testing. *Am J Gastroenterol* 92: 1280-1284
- Talley NJ, Valdovinos M, Petterson TM, Carpenter HA, Melton LJ (1994) Epidemiology of celiac sprue: a community-based study. *Am J Gastroenterol* 89: 843-846
- Tesei N, Sugai E, Vazquez H, Smecuol E, Niveloni S, Mazure R, Moreno ML, Gomez JC, Maurino E, Bai JC (2003) Antibodies to human recombinant tissue transglutaminase may detect coeliac disease patients undiagnosed by endomysial antibodies. *Alimentary Pharmacology & Therapeutics* 17: 1415-1423
- Thomas AG, Phillips AD, Walker-Smith JA (1992) The value of proximal small intestinal biopsy in the differential diagnosis of chronic diarrhoea. *Arch Dis Child* 67: 741-743
- Thomason K, West J, Logan RFA, Coupland C, Holmes GKT (2003) Fracture experience of patients with coeliac disease: a population based survey. *Gut* 52: 518-522
- Trivisoli C, Not T, Berti I, Buratti E, Citta A, Neri E, Torre G, Martellosi S, Tommasini A, Alu A, Barillari G, Facchini S, Ventura A (1999) Screening for coeliac disease in healthy blood donors at two immuno-transfusion centres in north-east Italy. *Ital J Gastroenterol Hepatol* 31: 584-586
- Troncone R, Maurano F, Rossi M, Micillo M, Greco L, Auricchio R, Salerno G, Salvatore F, Sacchetti L (1999) IgA antibodies to tissue transglutaminase: An effective diagnostic test for celiac disease. *Journal of Pediatrics* 134: 166-171
- Troncone R, Mayer M, Spagnuolo F, Maiuri L, Greco L (1995) Endomysial antibodies as unreliable markers for slight dietary transgressions in adolescents with celiac disease. *J Pediatr Gastroenterol Nutr* 21: 69-72
- Tursi A, Brandimarte G, Giorgetti GM, Inchingolo CD (2003) Effectiveness of the sorbitol HSUB2 breath test in detecting histological damage among relatives of coeliacs. *Scand J Gastroenterol* 38: 727-731
- Unsworth DJ, Lock RJ, Harvey RF (2000) Improving the diagnosis of coeliac disease in anaemic women. *Br J Haematol* 111: 898-901
- Vahedi K, Mascart-Lemone F, Mary JY, Laberrenne JE, Bouhnik Y, Morin MC, Velly C, Colombel JF, Matuchansky C (2000) Are Anti-Endomysial (AEM) and Anti-Transglutaminase (TTG) Antibodies Reliable Markers of Strict Diet Compliance in Adult Celiacs on a Gluten Free Diet (GFD)? *Gastroenterology* 118: AGA
- Valdimarsson T, Franzen L, Grodzinsky E, Skogh T, Strom M (1996) Is small bowel biopsy necessary in adults with suspected celiac disease and IgA anti-endomysium antibodies? 100% positive predictive value for celiac disease in adults. *Digestive Diseases and Sciences* 41: 83-87
- Valentini RA, Andreani ML, Corazza GR, Gasbarrini G (1994) IgA endomysium antibody: a valuable tool in the screening of coeliac disease but not its follow-up. *Ital J Gastroenterol* 26: 279-282

- Valerio G, Maiuri L, Troncone R, Buono P, Lombardi F, Palmieri R, Franzese A (2002) Severe clinical onset of diabetes and increased prevalence of other autoimmune diseases in children with coeliac disease diagnosed before diabetes mellitus. *Diabetologia* 45: 1719-1722
- Valletta EA, Trevisiol D, Mastella G (1990) IgA anti-gliadin antibodies in the monitoring of gluten challenge in celiac disease. *J Pediatr Gastroenterol Nutr* 10: 169-173
- Van Mook WNKA, Bourass-Bremer IHDN, Bos LP, Verhoeven HMJM, Engels LGJB (2001) The outcome of esophagogastroduodenoscopy (EGD) in asymptomatic outpatients with iron deficiency anemia after a negative colonoscopy. *Eur J Intern Med* 12: 122-126
- Vasquez H, Mazure R, Gonzalez D, Flores D, Pedreira S, Niveloni S, Smecul E, Maurino E, Bai JC (2000) Risk of fractures in celiac disease patients: a cross-sectional, case-control study. *Am J Gastroenterol*. 95: 183-189
- Ventura A, Facchini S, Amantidu C, Andreotti MF, Andrighetto A, Baggiani A, Benedetti F, Bonati S, Buonaterra I, Capozzo M, Ciscato E, Cracco F, Ferrari G, Fornale M, Fusco F, Laverda E, Mardiciaro M, Nicolussi E, Pasinato L, Pittarello D, Pizio E, Salvadori R, Sambugaro D, Sassolino S, Spavanello V, Visan CT, Ziglio G, Zuffellato V (2001) Searching for celiac disease in pediatric general practice. *Clin Pediatr* 40: 575-577
- Vestergaard P, Mosekilde L (2002) Fracture risk in patients with celiac Disease, Crohn's disease, and ulcerative colitis: a nationwide follow-up study of 16,416 patients in Denmark. *Am J Epidemiol*. 156: 1-10
- Vitoria JC, Arrieta A, Astigarraga I, Garcia-Masdevall D, Rodriguez-Soriano J (1994) Use of serological markers as a screening test in family members of patients with celiac disease. *J Pediatr Gastroenterol Nutr* 19: 304-309
- Vitoria JC, Arrieta A, Ortiz L, Ayesta A (2001) Antibodies to human tissue transglutaminase for the diagnosis of celiac disease. *Journal of Pediatric Gastroenterology and Nutrition* 33: 349-350
- Vitoria JC, Castano L, Rica I, Bilbao JR, Arrieta A, Garcia-Masdevall MD (1998) Association of insulin-dependent diabetes mellitus and celiac disease: a study based on serologic markers. *J Pediatr Gastroenterol Nutr* 27: 47-52
- Vogelsang H, Genser D, Wyatt J, Lochs H, Ferenci P, Granditsch G, Penner E (1995) Screening for celiac disease: a prospective study on the value of noninvasive tests. *American Journal of Gastroenterology* 90: 394-398
- Volta U, Bellentani S, Bianchi FB, Brandi G, De Franceschi L, Miglioli L, Granito A, Balli F, Tiribelli C (2001) High prevalence of celiac disease in Italian general population. *Dig Dis Sci* 46: 1500-1505
- Volta U, Molinaro N, De Franceschi L, Fratangelo D, Bianchi FB (1995) IgA anti-endomysial antibodies on human umbilical cord tissue for celiac disease screening. Save both money and monkeys. *Digestive Diseases and Sciences* 40: 1902-1905
- Wahab PJ, Meijer Jos WR, Mulder Chris JJ (2002) Histologic follow-up of people with celiac disease on a gluten-free diet: slow and incomplete recovery. *American Journal of Clinical Pathology* 118: 459-463
- Weile B, Krasilnikoff PA (1993) Extremely low incidence rates of celiac disease in the Danish population of children. *J Clin Epidemiol* 46: 661-664
- Weile I, Grodzinsky E, Skogh T, Jordal R, Cavell B, Krasilnikoff PA (2001) High prevalence rates of adult silent coeliac disease, as seen in Sweden, must be expected in Denmark. *APMIS* 109: 745-750
- West J, Logan RFA, Hill PG, Lloyd A, Lewis S, Hubbard R, Reader R, Holmes GKT, Khaw K-T (2003) Seroprevalence, correlates, and characteristics of undetected coeliac disease in England. *Gut* 52: 960-965
- West J, Logan Richard FA, Card TR, Smith C, Hubbard R (2003) Fracture risk in people with celiac disease: a population-based cohort study. *Gastroenterology* 125: 429-436
- Westman E, Ambler GR, Royle M, Peat J, Chan A (1999) Children with coeliac disease and insulin dependent diabetes mellitus--growth, diabetes control and dietary intake. *J Pediatr Endocrinol Metab* 12: 433-442
- Whelan A, Willoughby R, Weir D (1996) Human umbilical vein endothelial cells: a new easily available source of endomysial antigens. *European Journal of Gastroenterology & Hepatology* 8: 961-966
- Wolters V, Vooijs-Moulaert A, Burger H, Brooimans R, De Schryver J, Rijkers G, Houwen R (2002) Human tissue transglutaminase enzyme linked immunosorbent assay outperforms both the guinea pig based tissue transglutaminase assay and anti-endomysium antibodies when screening for coeliac disease. *European Journal of Pediatrics* 161: 284-287

## Appendix J. Quality Assessment

Table 1: Celiac 1 diagnostic studies (QUADAS)

Author (Year)	Item 1: spectrum of patients	Item 2: selection criteria	Item 3: reference standard	Item 4: time period	Item 5: sampling	Item 6: test result	Item 7: sampling independence	Item 8a: index test description	Item 8b: reference standard description	Item 9a: reference standard results(1)	Item 9b: reference standard results (2)	Item 10: interpretation	Item 11: uninterpretable/intermediate test result	Item 12: withdrawal explanation	Total No. of Items = 14	
Altuntas (1998)	yes	yes	yes	yes	yes	yes	yes	yes	yes	no	unclear	yes	yes	yes	12	(+) reported
Artan (1998)	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	unclear	yes	yes	yes	13	(+) reported
Ascher (1996)	yes	yes	yes	yes	yes	yes	yes	yes	yes	unclear	unclear	yes	yes	yes	12	(+) reported
Ascher (1990)	yes	yes	yes	yes	yes	yes	yes	unclear	yes	unclear	unclear	yes	yes	yes	11	(+) reported
Bahia (2001)	yes	yes	yes	yes	yes	yes	yes	yes	yes	unclear	unclear	yes	no	no	10	(+) reported
Bardella (2001)	yes	yes	yes	yes	yes	yes	yes	unclear	yes	unclear	unclear	yes	yes	yes	11	(+) reported
Berger (1996)	no	yes	yes	unclear	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	12	(+) reported
Biagi (2001)	no	unclear	yes	no	yes	yes	yes	yes	yes	no	unclear	yes	yes	yes	9	(+) reported
Bode (1993)	yes	yes	yes	yes	yes	yes	yes	yes	yes	unclear	unclear	yes	yes	yes	12	(+) reported
Bonamico (2001)	no	unclear	yes	no	yes	yes	yes	yes	unclear	no	unclear	yes	yes	yes	8	(+) reported

Table 1: Celiac 1 diagnostic studies (QUADAS) (cont'd)

Author (Year)	Item 1: spectrum of patients	Item 2: selection criteria	Item 3: reference standard	Item 4: time period	Item 5: sampling	Item 6: test result	Item 7: sampling independence	Item 8a: index test description	Item 8b: reference standard description	Item 9a: reference standard results(1)	Item 9b: reference standard results (2)	Item 10: interpretation	Item 11: uninterpretable/intermediate test result	Item 12: withdrawal explanation	Total No. of Items = 14	
Bottaro (1997)	no	no	yes	no	yes	yes	yes	unclear	yes	yes	unclear	yes	yes	yes	9	(+) reported
Carroccio (2002)	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	unclear	yes	yes	yes	13	(+) reported
Carroccio (1993)	no	yes	yes	yes	yes	yes	yes	yes	yes	yes	unclear	yes	yes	yes	12	(+) reported
Carroccio (2002)	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	unclear	yes	yes	yes	13	(+) reported
Cataldo (2000)	no	yes	yes	unclear	yes	yes	yes	yes	yes	no	unclear	yes	yes	yes	10	(+) reported
Chan (2001)	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	unclear	yes	yes	yes	13	(+) reported
Chartrand (1997)	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	unclear	yes	yes	yes	13	(+) reported
Chirido (1999)	yes	unclear	yes	yes	yes	yes	yes	yes	yes	no	unclear	yes	yes	yes	11	(+) reported
Chirido (2000)	no	no	yes	yes	unclear	yes	yes	yes	yes	unclear	unclear	yes	yes	yes	9	(+) reported
Dahele (2001)	no	no	yes	yes	yes	yes	yes	yes	yes	yes	unclear	yes	yes	yes	11	(+) reported
Di Leo (1999)	no	unclear	yes	unclear	yes	yes	yes	yes	no	no	unclear	yes	yes	yes	8	(+) reported
Dickey (2001)	no	unclear	yes	yes	yes	yes	yes	yes	yes	yes	unclear	yes	yes	yes	11	(+) reported

Table 1: Celiac 1 diagnostic studies (QUADAS) (cont'd)

Author (Year)	Item 1: spectrum of patients	Item 2: selection criteria	Item 3: reference standard	Item 4: time period	Item 5: sampling	Item 6: test result	Item 7: sampling independence	Item 8a: index test description	Item 8b: reference standard description	Item 9a: reference standard results(1)	Item 9b: reference standard results (2)	Item 10: Interpretation	Item 11: uninterpretable/ intermediate test result	Item 12: withdrawal explanation	Total No. of Items = 14	
Falsh-Magnusson (1994)	yes	yes	yes	yes	yes	yes	yes	yes	yes	unclear	unclear	yes	yes	no	11	(+) reported
Gillett (2000)	no	no	yes	yes	yes	no	yes	yes	yes	unclear	unclear	yes	yes	yes	9	(+) reported
Gonczi (1991)	yes	yes	yes	yes	no	yes	yes	yes	yes	no	unclear	yes	yes	yes	11	(+) reported
Hallstrom (1989)	no	no	yes	unclear	yes	yes	yes	yes	yes	unclear	unclear	yes	yes	yes	9	(+) reported
Hansson (2000)	no	no	yes	yes	yes	yes	yes	yes	yes	unclear	unclear	yes	yes	yes	10	(+) reported
Iltanen (1999)	yes	yes	yes	yes	yes	yes	yes	yes	yes	unclear	unclear	yes	yes	yes	12	(+) reported
Kaukinen (2000)	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	unclear	yes	yes	yes	13	(+) reported
Kolho (1997)	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	14	(+) reported
Kumar (1989)	yes	yes	yes	yes	unclear	yes	yes	yes	yes	unclear	unclear	yes	yes	yes	11	(+) reported
Ladinser (1994)	no	no	yes	unclear	unclear	unclear	yes	yes	yes	unclear	unclear	yes	unclear	unclear	5	(+) reported

**Table 1: Celiac 1 diagnostic studies (QUADAS) (cont'd)**

Author (Year)	Item 1: spectrum of patients	Item 2: selection criteria	Item 3: reference standard	Item 4: time period	Item 5: sampling	Item 6: test result	Item 7: sampling independence	Item 8a: index test description	Item 8b: reference standard description	Item 9a: reference standard results(1)	Item 9b: reference standard results (2)	Item 10: Interpretation	Item 11: uninterpretable/ intermediate test result	Item 12: withdrawal explanation	Total No. of Items = 14	
Lerner (1994)	no	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	13	(+) reported
Lindberg (1985)	yes	yes	yes	yes	yes	yes	yes	yes	yes	unclear	unclear	yes	yes	yes	12	(+) reported
Lindquist (1994)	yes	yes	yes	yes	yes	yes	yes	yes	yes	no	unclear	yes	yes	yes	12	(+) reported
Maki (1991)	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	unclear	yes	yes	yes	13	(+) reported
McMillan (1991)	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	14	(+) reported
Meini (1996)	yes	yes	yes	yes	yes	yes	yes	yes	yes	unclear	unclear	yes	yes	yes	12	(+) reported
Pacht (1995)	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	unclear	yes	yes	yes	13	(+) reported
Picarelli (2000)	yes	unclear	yes	yes	yes	yes	yes	yes	yes	no	unclear	yes	yes	no	10	(+) reported
Poddar (2002)	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	unclear	yes	yes	unclear	12	(+) reported
Rich (1990)	yes	yes	yes	yes	yes	yes	yes	yes	yes	no	unclear	yes	yes	yes	12	(+) reported
Russo (1999)	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	unclear	yes	yes	yes	13	(+) reported

**Table 1: Celiac 1 diagnostic studies (QUADAS) (cont'd)**

Author (Year)	Item 1: spectrum of patients	Item 2: selection criteria	Item 3: reference standard	Item 4: time period	Item 5: sampling	Item 6: test result	Item 7: sampling independence	Item 8a: index test description	Item 8b: reference standard description	Item 9a: reference standard results(1)	Item 9b: reference standard results (2)	Item 10: interpretation	Item 11: uninterpretable/intermediate test result	Item 12: withdrawal explanation	Total No. of Items = 14	
Salmaso (2001)	no	unclear	yes	unclear	unclear	unclear	yes	yes	no	unclear	unclear	yes	yes	yes	<b>6</b>	(+) reported
Sategna-Guidetti (1995)	no	unclear	yes	unclear	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	<b>11</b>	(+) reported
Sblattero (2000)	no	yes	yes	no	yes	no	yes	yes	yes	yes	unclear	yes	yes	yes	<b>10</b>	(+) reported
Sulkanen (1998)	no	yes	yes	yes	yes	yes	yes	yes	yes	unclear	unclear	yes	yes	yes	<b>11</b>	(+) reported
Tesei (2003)	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	unclear	yes	yes	yes	<b>13</b>	(+) reported
Troncone (1999)	yes	yes	yes	yes	yes	yes	yes	yes	yes	unclear	unclear	yes	yes	yes	<b>12</b>	(+) reported
Valdimarsson (1996)	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	unclear	yes	yes	yes	<b>13</b>	(+) reported
Valentini (1994)	no	no	yes	yes	yes	yes	yes	yes	yes	unclear	unclear	yes	yes	yes	<b>10</b>	(+) reported
Vitoria (2001)	no	no	yes	no	yes	yes	yes	yes	no	no	unclear	yes	yes	yes	<b>8</b>	(+) reported
Vogelsang (1995)	yes	yes	yes	yes	yes	yes	yes	yes	yes	no	unclear	yes	yes	yes	<b>12</b>	(+) reported

Table 1: Celiac 1 diagnostic studies (QUADAS) (cont'd)

Author (Year)	Item 1: spectrum of patients	Item 2: selection criteria	Item 3: reference standard	Item 4: time period	Item 5: sampling	Item 6: test result	Item 7: sampling independence	Item 8a: index test description	Item 8b: reference standard description	Item 9a: reference standard results(1)	Item 9b: reference standard results (2)	Item 10: interpretation	Item 11: uninterpretable/intermediate test result	Item 12: withdrawal explanation	Total No. of Items = 14	
Volta (1995)	no	unclear	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	12	(+) reported
Whelan (1996)	no	unclear	yes	unclear	yes	yes	yes	yes	unclear	unclear	unclear	yes	yes	yes	8	(+) reported
Wolters (2002)	yes	no	yes	unclear	yes	yes	yes	yes	yes	no	unclear	yes	yes	yes	10	(+) reported
<b>Item % (+) reported</b>	<b>59%</b>	<b>64%</b>	<b>100%</b>	<b>75%</b>	<b>91%</b>	<b>93%</b>	<b>100%</b>	<b>95%</b>	<b>91%</b>	<b>41%</b>	<b>11%</b>	<b>100%</b>	<b>96%</b>	<b>91%</b>		

**NOTE:** (+) reported = postively reported; yes = reported; no = not reported

**Table 2: Celiac 2 prevalence & incidence studies (cross-sectional checklist)**

<b>Author (Year)</b>	<b>Item 1 : Source of Information</b>	<b>Item 2: Inclusion/Exclusion Criteria</b>	<b>Item 3: Time Period for Identity</b>	<b>Item 4: Subjects consecutive</b>	<b>Item 5: Evaluators Masked</b>	<b>Item 6: Quality Assurance Assessments</b>	<b>Item 7: Patient Exclusions</b>	<b>Item 8: Confounding assessed/controlled</b>	<b>Item 9: Missing Data</b>	<b>Item 10: Response Rates</b>	<b>Item 11 : Follow-up</b>	<b>Total Items Reported (Max. 11)</b>	
Acerini (1998)	yes	no	yes	no	can't tell	no	no	no	yes	yes	yes	<b>5</b>	(+) reported
Ackerman (1996)	can't tell	no	yes	can't tell	no	no	no	no	no	yes	yes	<b>3</b>	(+) reported
Agardh (2001)	yes	can't tell	no	can't tell	no	no	yes	no	yes	can't tell	no	<b>3</b>	(+) reported
Aktay (2001)	yes	no	yes	no	no	no	no	no	no	no	no	<b>2</b>	(+) reported
Annibale (2001)	yes	yes	yes	yes	can't tell	can't tell	yes	no	no	yes	no	<b>6</b>	(+) reported
Annibale (2003)	yes	yes	yes	yes	no	no	yes	can't tell	no	yes	no	<b>6</b>	(+) reported
Arato (2002)	yes	yes	yes	yes	no	no	no	can't tell	no	can't tell	no	<b>4</b>	(+) reported
Bao (1999)	yes	no	no	can't tell	no	no	no	no	no	can't tell	no	<b>1</b>	(+) reported
Bardella (1991)	yes	no	no	yes	can't tell	yes	no	no	no	yes	no	<b>4</b>	(+) reported
Bardella (2001)	yes	no	yes	yes	no	no	no	no	no	yes	no	<b>4</b>	(+) reported
Barera (1991)	can't tell	no	yes	can't tell	no	no	no	no	no	yes	no	<b>2</b>	(+) reported
Barera (2002)	no	no	yes	yes	no	no	yes	no	no	can't tell	yes	<b>4</b>	(+) reported
Bode (1996)	yes	yes	yes	no	can't tell	no	yes	no	no	yes	no	<b>5</b>	(+) reported
Bode (1993)	yes	yes	yes	yes	no	yes	can't tell	yes	can't tell	yes	yes	<b>8</b>	(+) reported
Book (2003)	yes	can't tell	no	no	no	no	can't tell	no	no	no	can't tell	<b>1</b>	(+) reported
Borch (2000)	yes	no	no	no	no	no	yes	can't tell	no	yes	can't tell	<b>3</b>	(+) reported
Calero (1996)	yes	no	yes	yes	no	yes	yes	yes	no	no	no	<b>6</b>	(+) reported
Carlsson (2001)	yes	yes	yes	no	no	no	no	yes	no	yes	yes	<b>6</b>	(+) reported
Carroccio (2002)	can't tell	no	yes	yes	yes	no	yes	yes	no	yes	no	<b>6</b>	(+) reported
Catassi (1996)	yes	no	yes	can't tell	no	yes	no	yes	no	yes	no	<b>5</b>	(+) reported
Catassi (2000)	yes	yes	yes	no	no	no	yes	yes	no	yes	no	<b>6</b>	(+) reported

**Table 2: Celiac 2 prevalence & incidence studies (cross-sectional checklist) (cont'd)**

<b>Author (Year)</b>	<b>Item 1 : Source of Information</b>	<b>Item 2: Inclusion/Exclusion Criteria</b>	<b>Item 3: Time Period for Identity</b>	<b>Item 4: Subjects consecutive</b>	<b>Item 5: Evaluators Masked</b>	<b>Item 6: Quality Assurance Assessments</b>	<b>Item 7: Patient Exclusions</b>	<b>Item 8: Confounding assessed/controlled</b>	<b>Item 9: Missing Data</b>	<b>Item 10: Response Rates</b>	<b>Item 11 : Follow-up</b>	<b>Total Items Reported (Max. 11)</b>	
Chan (2001)	yes	yes	yes	can't tell	yes	no	can't tell	no	no	can't tell	no	<b>4</b>	(+) reported
Chartrand (1997)	yes	can't tell	yes	can't tell	no	can't tell	no	no	no	yes	no	<b>3</b>	(+) reported
Collin (2002)	yes	can't tell	yes	can't tell	no	no	yes	yes	no	can't tell	no	<b>4</b>	(+) reported
Collin (1997)	yes	yes	yes	no	no	no	no	yes	no	can't tell	no	<b>4</b>	(+) reported
Corazza (1997)	no	no	no	no	no	no	no	no	no	can't tell	no	<b>0</b>	(+) reported
Corazza (1995)	no	no	no	yes	no	no	no	no	no	yes	no	<b>2</b>	(+) reported
Corazza (1992)	no	no	no	can't tell	no	no	no	no	no	yes	no	<b>1</b>	(+) reported
Corrao (1996)	yes	can't tell	yes	no	can't tell	yes	yes	no	no	yes	no	<b>5</b>	(+) reported
Cronin (1997)	yes	no	no	yes	no	no	no	no	no	yes	no	<b>3</b>	(+) reported
Csizmadia (1999)	yes	can't tell	yes	no	can't tell	no	can't tell	no	no	yes	yes	<b>4</b>	(+) reported
Day (2000)	yes	yes	yes	no	can't tell	no	yes	no	no	no	no	<b>4</b>	(+) reported
De Block (2001)	yes	no	no	can't tell	no	no	no	no	no	can't tell	no	<b>1</b>	(+) reported
De, Vitis (1996)	no	no	no	no	no	no	no	no	no	yes	no	<b>1</b>	(+) reported
Dickey (1997)	no	can't tell	no	can't tell	no	no	no	can't tell	no	yes	no	<b>1</b>	(+) reported
Dickey (1992)	yes	yes	no	can't tell	no	no	no	no	yes	no	no	<b>3</b>	(+) reported
Farre (1999)	yes	yes	yes	can't tell	no	no	no	yes	no	yes	no	<b>5</b>	(+) reported
Fasano (2003)	yes	yes	yes	can't tell	no	no	no	yes	no	yes	yes	<b>6</b>	(+) reported
Fitzpatrick (2001)	yes	can't tell	no	can't tell	no	no	yes	no	no	yes	no	<b>3</b>	(+) reported
Fraser-Rey0lds (1998)	can't tell	can't tell	yes	no	no	no	no	yes	no	yes	yes	<b>4</b>	(+) reported
Gillett (2001)	yes	can't tell	yes	no	yes	no	no	yes	no	yes	no	<b>5</b>	(+) reported
Gonzalez (2002)	can't tell	can't tell	no	yes	yes	no	can't tell	yes	no	yes	no	<b>4</b>	(+) reported
Green (2000)	yes	no	yes	yes	yes	yes	no	can't tell	no	yes	yes	<b>7</b>	(+) reported
Grodzinsky (1996)	yes	no	yes	no	no	yes	no	no	no	no	no	<b>3</b>	(+) reported

**Table 2: Celiac 2 prevalence & incidence studies (cross-sectional checklist) (cont'd)**

<b>Author (Year)</b>	<b>Item 1 : Source of Information</b>	<b>Item 2: Inclusion/Exclusion Criteria</b>	<b>Item 3: Time Period for Identity</b>	<b>Item 4: Subjects consecutive</b>	<b>Item 5: Evaluators Masked</b>	<b>Item 6: Quality Assurance Assessments</b>	<b>Item 7: Patient Exclusions</b>	<b>Item 8: Confounding assessed/controlled</b>	<b>Item 9: Missing Data</b>	<b>Item 10: Response Rates</b>	<b>Item 11 : Follow-up</b>	<b>Total Items Reported (Max. 11)</b>	
Hansen (2001)	no	can't tell	no	yes	no	no	no	no	no	no	no	<b>1</b>	(+) reported
Hawkes (2000)	yes	can't tell	yes	no	no	no	no	no	no	no	no	<b>2</b>	(+) reported
Hill (2000)	yes	no	no	no	no	no	no	yes	no	yes	yes	<b>4</b>	(+) reported
Hin (1999)	yes	yes	yes	yes	can't tell	yes	no	can't tell	no	yes	no	<b>6</b>	(+) reported
Hoffenberg (2003)	yes	yes	yes	can't tell	yes	no	can't tell	yes	no	yes	yes	<b>7</b>	(+) reported
Hogberg (2003)	yes	no	yes	no	no	no	can't tell	no	no	yes	yes	<b>4</b>	(+) reported
Holm (1993)	can't tell	no	no	can't tell	no	no	no	can't tell	no	yes	no	<b>1</b>	(+) reported
Hovdenak (1999)	no	no	no	no	no	no	no	no	no	yes	no	<b>1</b>	(+) reported
Howard (2002)	yes	yes	yes	can't tell	can't tell	no	yes	no	no	yes	no	<b>5</b>	(+) reported
Ivarsson (1999)	yes	can't tell	yes	yes	no	no	no	yes	no	yes	no	<b>5</b>	(+) reported
Ivarsson (2003)	yes	yes	yes	yes	no	no	no	yes	no	yes	no	<b>6</b>	(+) reported
Jaeger (2001)	no	can't tell	no	no	no	no	no	can't tell	no	yes	no	<b>1</b>	(+) reported
Jansen Th (1993)	yes	yes	yes	no	no	can't tell	no	no	no	yes	no	<b>4</b>	(+) reported
Johnston (1998)	yes	can't tell	can't tell	can't tell	yes	no	yes	no	can't tell	yes	yes	<b>5</b>	(+) reported
Kaukinen (1999)	can't tell	no	yes	can't tell	no	no	no	no	no	yes	no	<b>2</b>	(+) reported
Kepczyk (1995)	yes	yes	yes	yes	can't tell	yes	no	can't tell	no	yes	yes	<b>7</b>	(+) reported
Kolho (1998)	yes	can't tell	yes	can't tell	no	no	no	no	no	yes	yes	<b>4</b>	(+) reported
Kordoouri (2000)	no	no	no	no	no	no	yes	no	no	yes	no	<b>2</b>	(+) reported
Kotze (2001)	yes	no	no	no	can't tell	no	no	can't tell	can't tell	yes	no	<b>2</b>	(+) reported
Lampasona (1999)	no	no	no	no	no	no	no	no	no	can't tell	no	<b>0</b>	(+) reported
Li Voon Chong (2002)	no	no	yes	no	no	no	no	yes	no	can't tell	no	<b>2</b>	(+) reported
Lindh (1992)	no	no	no	yes	no	no	no	no	no	yes	no	<b>2</b>	(+) reported

**Table 2: Celiac 2 prevalence & incidence studies (cross-sectional checklist) (cont'd)**

<b>Author (Year)</b>	<b>Item 1: Source of Information</b>	<b>Item 2: Inclusion/Exclusion Criteria</b>	<b>Item 3: Time Period for Identity</b>	<b>Item 4: Subjects consecutive</b>	<b>Item 5: Evaluators Masked</b>	<b>Item 6: Quality Assurance Assessments</b>	<b>Item 7: Patient Exclusions</b>	<b>Item 8: Confounding assessed/controlled</b>	<b>Item 9: Missing Data</b>	<b>Item 10: Response Rates</b>	<b>Item 11: Follow-up</b>	<b>Total Items Reported (Max. 11)</b>	
Lopez-Rodriguez (2003)	yes	can't tell	yes	yes	no	yes	no	no	no	yes	no	<b>5</b>	(+) reported
Lorini (1996)	no	no	no	no	no	yes	no	no	no	yes	no	<b>2</b>	(+) reported
Magazzu (1994)	yes	can't tell	yes	no	can't tell	no	no	no	no	yes	no	<b>3</b>	(+) reported
Maki (1988)	yes	no	yes	yes	can't tell	no	no	no	no	no	no	<b>3</b>	(+) reported
Maki (2003)	yes	can't tell	yes	can't tell	no	no	yes	yes	no	yes	no	<b>5</b>	(+) reported
Mather (2001)	no	no	no	yes	no	no	can't tell	no	yes	yes	no	<b>3</b>	(+) reported
Mazzetti (1992)	yes	yes	no	no	no	no	no	no	no	no	no	<b>2</b>	(+) reported
McIntyre (1993)	yes	no	yes	yes	no	no	yes	no	no	yes	yes	<b>6</b>	(+) reported
Mustalahti (2002)	no	can't tell	no	can't tell	no	yes	yes	no	no	yes	no	<b>3</b>	(+) reported
Ot (1998)	can't tell	no	no	no	can't tell	no	no	yes	no	can't tell	no	<b>1</b>	(+) reported
Ot (2001)	yes	no	yes	yes	no	no	no	no	no	yes	no	<b>4</b>	(+) reported
Nuti (2001)	yes	yes	yes	yes	can't tell	yes	can't tell	no	can't tell	yes	yes	<b>7</b>	(+) reported
Oxentenko (2002)	yes	can't tell	yes	no	no	no	yes	can't tell	no	yes	no	<b>4</b>	(+) reported
Page (1994)	yes	yes	yes	yes	yes	no	yes	yes	no	no	yes	<b>8</b>	(+) reported
Pittschieler (1996)	yes	no	no	no	no	no	no	no	no	no	no	<b>1</b>	(+) reported
Pittschieler (2003)	yes	can't tell	yes	can't tell	no	no	can't tell	can't tell	no	can't tell	yes	<b>3</b>	(+) reported
Polvi (1996)	yes	yes	no	yes	no	no	yes	no	yes	yes	yes	<b>7</b>	(+) reported
Ransford (2002)	no	no	no	yes	no	no	yes	no	no	yes	no	<b>3</b>	(+) reported
Rensch (1996)	yes	yes	yes	yes	can't tell	yes	yes	no	yes	yes	no	<b>8</b>	(+) reported
Riestra (2000)	can't tell	can't tell	yes	no	no	yes	no	yes	no	yes	no	<b>4</b>	(+) reported
Robinson (1971)	yes	no	no	yes	no	no	no	no	no	no	no	<b>2</b>	(+) reported
Roldan (1998)	yes	no	yes	no	no	yes	no	no	no	no	no	<b>3</b>	(+) reported

**Table 2: Celiac 2 prevalence & incidence studies (cross-sectional checklist) (cont'd)**

<b>Author (Year)</b>	<b>Item 1: Source of Information</b>	<b>Item 2: Inclusion/Exclusion Criteria</b>	<b>Item 3: Time Period for Identity</b>	<b>Item 4: Subjects consecutive</b>	<b>Item 5: Evaluators Masked</b>	<b>Item 6: Quality Assurance Assessments</b>	<b>Item 7: Patient Exclusions</b>	<b>Item 8: Confounding assessed/controlled</b>	<b>Item 9: Missing Data</b>	<b>Item 10: Response Rates</b>	<b>Item 11: Follow-up</b>	<b>Total Items Reported (Max. 11)</b>	
Rolles (1974)	yes	yes	no	no	no	no	no	no	no	yes	can't tell	<b>3</b>	(+) reported
Rossi (1993)	yes	can't tell	yes	no	no	no	no	no	no	yes	no	<b>3</b>	(+) reported
Rostami (2000)	no	no	no	no	yes	no	no	no	no	yes	no	<b>2</b>	(+) reported
Rostami (1999)	yes	no	yes	no	no	no	no	no	no	yes	no	<b>3</b>	(+) reported
Rutz (2002)	can't tell	no	no	no	no	yes	no	yes	no	yes	yes	<b>4</b>	(+) reported
Sanders (2003)	yes	no	yes	no	no	no	no	yes	no	yes	yes	<b>5</b>	(+) reported
Sategna-Guidetti (1994)	yes	no	no	no	no	no	no	no	no	yes	no	<b>2</b>	(+) reported
Saukkonen (1996)	yes	no	yes	yes	no	yes	yes	can't tell	no	yes	yes	<b>7</b>	(+) reported
Schober (2000)	yes	no	no	no	no	no	no	yes	no	no	no	<b>2</b>	(+) reported
Sigurs (1993)	yes	yes	yes	no	no	no	yes	no	no	yes	no	<b>5</b>	(+) reported
Sjoberg (1999)	yes	can't tell	yes	yes	can't tell	no	can't tell	yes	no	yes	no	<b>5</b>	(+) reported
Sjoberg (1994)	yes	can't tell	yes	yes	no	no	yes	no	no	yes	no	<b>5</b>	(+) reported
Sjoberg (1998)	yes	no	yes	no	no	yes	yes	no	no	yes	no	<b>5</b>	(+) reported
Spiekerkoetter (2002)	no	no	yes	can't tell	can't tell	no	no	no	no	yes	yes	<b>3</b>	(+) reported
Stokes (1976)	yes	no	no	can't tell	no	no	can't tell	yes	no	yes	yes	<b>4</b>	(+) reported
Talal (1997)	no	yes	no	can't tell	no	no	yes	yes	no	yes	yes	<b>5</b>	(+) reported
Talley (1994)	yes	yes	yes	no	no	can't tell	yes	yes	no	yes	no	<b>6</b>	(+) reported
Thomas (1992)	yes	no	yes	can't tell	can't tell	can't tell	no	no	no	yes	no	<b>3</b>	(+) reported
Trevisiol (1999)	yes	can't tell	yes	can't tell	no	no	no	no	no	no	yes	<b>3</b>	(+) reported
Tursi (2003)	no	no	no	can't tell	yes	no	no	no	no	no	no	<b>1</b>	(+) reported

**Table 2: Celiac 2 prevalence & incidence studies (cross-sectional checklist) (cont'd)**

<b>Author (Year)</b>	<b>Item 1 : Source of Information</b>	<b>Item 2: Inclusion/Exclusion Criteria</b>	<b>Item 3: Time Period for Identity</b>	<b>Item 4: Subjects consecutive</b>	<b>Item 5: Evaluators Masked</b>	<b>Item 6: Quality Assurance Assessments</b>	<b>Item 7: Patient Exclusions</b>	<b>Item 8: Confounding assessed/controlled</b>	<b>Item 9: Missing Data</b>	<b>Item 10: Response Rates</b>	<b>Item 11: Follow-up</b>	<b>Total Items Reported (Max. 11)</b>	
Unsworth (2000)	yes	can't tell	yes	can't tell	no	no	no	yes	no	yes	yes	<b>5</b>	(+) reported
Valerio (2002)	yes	can't tell	yes	can't tell	no	no	no	no	no	yes	no	<b>3</b>	(+) reported
Van Mook (2001)	yes	yes	no	no	can't tell	no	yes	no	no	yes	no	<b>4</b>	(+) reported
Ventura (2001)	can't tell	yes	can't tell	can't tell	no	no	yes	can't tell	no	yes	no	<b>3</b>	(+) reported
Vitoria (1994)	no	can't tell	no	can't tell	no	no	can't tell	no	no	can't tell	no	<b>0</b>	(+) reported
Vitoria (1998)	yes	no	no	no	no	no	no	no	no	no	yes	<b>2</b>	(+) reported
Volta (2001)	can't tell	yes	yes	no	no	no	no	no	no	yes	no	<b>3</b>	(+) reported
Weile (1993)	yes	yes	yes	no	no	no	no	no	no	yes	no	<b>4</b>	(+) reported
Weile (2001)	yes	no	no	yes	no	no	no	yes	no	yes	no	<b>4</b>	(+) reported
West (2003)	yes	can't tell	yes	no	no	no	yes	yes	no	yes	no	<b>5</b>	(+) reported
<b>% Items (+) reported:</b>	<b>71%</b>	<b>27%</b>	<b>60%</b>	<b>29%</b>	<b>8%</b>	<b>16%</b>	<b>28%</b>	<b>27%</b>	<b>5%</b>	<b>73%</b>	<b>25%</b>		

**Table 3. Celiac 3 cohort studies (Ottawa-Newcastle Scale)**

<b>Author (Year)</b>	<b>Item 1: selection of exposed</b>	<b>Item 2: selection of non-exposed</b>	<b>Item 3: ascertainment of exposure</b>	<b>Item 4: outcome missing data at initiation</b>	<b>Item 5: control factors (2**s)</b>	<b>Item 6: assessment of outcome</b>	<b>Item 7: adequacy of follow-up length</b>	<b>Item 8: accountability for follow-up</b>	
Asking (2002)	1	1	1	1	2	1	1	1	9 (*) awarded
Collin (1996)	1	1	1	1	2	1	1	0	8 (*) awarded
Corrao (2001)	1	1	1	0	2	1	1	1	8 (*) awarded
Cottone (1999)	1	1	1	1	2	1	1	1	9 (*) awarded
Green (2003)	1	1	1	1	2	1	1	0	8 (*) awarded
Holmes (1989)	1	1	1	1	2	1	1	1	9 (*) awarded
Logan (1989)	1	1	1	0	2	1	1	1	8 (*) awarded
Nielsen (1985)	1	1	1	1	2	1	1	0	8 (*) awarded
Selby (1979)	1	1	1	1	2	1	1	0	8 (*) awarded
<b>Item % (+) reported</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>78%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>56%</b>	

**NOTE:** a maximum of 9 stars\* may be awarded per study

**Table 4: Celiac 3 case-control study (Ottawa-Newcastle Scale)**

Author (Year)	Item 1: case definition	Item 2: representativeness of cases	Item 3: selection of controls	Item 4: definition of controls	Item 5: control factors	Item 6: ascertainment of exposure	Item 7: method of ascertainment for cases and controls	Item 8: non-response rate	
Delco (1999)	1	1	1	1	2	0	1	0	7 (*) awarded

**NOTE:** a maximum of 9 stars\* may be awarded per study

**Table 5. Celiac 4 cohort studies (Ottawa-Newcastle Scale)**

Author (Year)	Item 1: selection of exposed	Item 2: selection of non-exposed	Item 3: ascertainment of exposure	Item 4: outcome missing data at initiation	Item 5: control factors (2*s)	Item 6: assessment of outcome	Item 7: adequacy of follow-up length	Item 8: accountability for follow-up	
Amin (2002)	1	1	1	0	1	0	1	0	5 (*) awarded
Greco (1997)	1	1	0	0	1	1	1	0	5 (*) awarded
Harewood (2001)	1	1	0	0	1	0	1	1	5 (*) awarded
Holmes (1976)	1	1	1	1	1	0	1	0	6 (*) awarded
Johnston (1998)	1	1	1	1	2	1	0	1	8 (*) awarded
Poddar (2002)	1	1	1	1	0	0	1	0	5 (*) awarded
<b>Item % (+) reported</b>	100%	100%	70%	50%	50%	33%	83%	33%	

**NOTE:** a maximum of 9 stars\* may be awarded per study

**Table 6. Celiac 4 case-control study (Ottawa-Newcastle Scale)**

	Item 1 : case definition	Item 2: representativeness of cases	Item 3: selection of controls	Item 4: definition of controls	Item 5: control factors (2*'s)	Item 6: ascertainment of exposure	Item 7: method of ascertainment for cases and controls	Item 8: non-response rate	
<b>Author (Year)</b>									
Ciacchi (1996)	1	0	1	1	0	1	1	0	4 (*) awarded
Fabiani (1996)	1	1	1	1	1	1	1	0	7 (*) awarded
Thomason (2003)	1	0	1	1	2	0	1	1	6 (*) awarded
Westman (1999)	1	0	1	1	2	0	1	0	5 (*) awarded
<b>Item % (+) reported</b>	100%	25%	100%	100%	62.5%	50%	100%	25%	

**NOTE:** a maximum of 9 stars\* may be awarded per study

**Table 7: Celiac 4—Quality assessment not applicable to those studies identified as 'Other' in design**

<b>Author (Year)</b>
Annibale (2001)
Arato (2002)
Atkinson (1997)
Bai (1997)
Bardella (2000)
Bardella (1985)
Barera (2000)
Boersma (2002)
Corrao (2001)
Fabiani (2000)
Kemppainen (1999)
Kemppainen(1998)
Mora (2001)
Mustalahti (1999)
Rea (1996)
Sategna-Guidetti (2000)
Sategna-Guidetti (2001)
Saukkonen (2002)
Valdimarsson (2000)
Zaccari (1996)

**Table 8: Celiac 4—Quality assessment pending**

<b>Author (Year)</b>
Smecuol (1997)
Valdimarsson (1996)

**Table 9: Celiac 5 case-control studies (Ottawa-Newcastle Scale)**

<b>Author (Year)</b>	<b>Item 1: case definition</b>	<b>Item 2: representativeness of cases</b>	<b>Item 3: selection of controls</b>	<b>Item 4: definition of controls</b>	<b>Item 5: control factors (2**s)</b>	<b>Item 6: ascertainment of exposure</b>	<b>Item 7: method of ascertainment for cases and controls</b>	<b>Item 8: Non-response rate</b>	
Bardella (2001)	1	1	1	1	1	1	1	1	8 (*) awarded
Fabiani (2001)	1	1	1	0	1	0	1	1	6 (*) awarded
Anson (1990)	1	1	1	0	1	0	1	1	6 (*) awarded
Fabiani (2000)	1	1	1	1	1	0	1	1	7 (*) awarded
<b>Item % (+) reported</b>	100%	100%	100%	50%	50%	25%	100%	100%	

**NOTE:** a maximum of 9 stars\* may be awarded per study

**Table 10. Celiac 5 cohort studies (Ottawa-Newcastle Scale)**

	Item 1 : Selection of exposed	Item 2: selection of non-exposed	Item 3: ascertainment of exposure	Item 4: outcome missing data at Initiation	Item 5: control factors (2*'s)	Item 6: assessment of outcome	Item 7 : adequacy of follow-up length	Item 8: accountability for follow-up	
<b>Author (Year)</b>									
McNicholl (1976)	0	1	1	0	1	1	1	1	6 (*) awarded
Pacht (1995)	1	1	0	0	1	1	1	1	6 (*) awarded
Sategna-Guidetti (1996)	1	1	1	1	0	1	1	1	7 (*) awarded
Troncone (1995)	1	1	1	0	0	1	1	1	6 (*) awarded
Hogberg (2003)	1	1	1	1	1	1	1	1	8 (*) awarded
Fabiani (1996)	1	1	1	1	1	0	1	1	7 (*) awarded
<b>Item % (+) reported</b>	83%	100%	83%	50%	33%	83%	100%	100%	

**NOTE:** a maximum of 9 stars\* may be awarded per study

**Table 11. Celiac 5 non-comparative case series checklist**

Author (Year)	Item 1: Intervention	Item 2: Inclusion/exclusion criteria	Item 3: follow-up as an inclusion	Item 4: sample size determination	Item 5: sample size calculations	Item 6: method & length/accumulation of cases	Item 7: sources of participants	Item 8: method of outcome assessments	Item 9: blinding	Item 9: primary and secondary measures	Item 11: timing of outcome assessment	Item 12: follow-up schedule	Item 13: maintaining follow-up	Item 14: compliance with follow-up	Item 15: method of data collection	Item 16: exclusions	Item 17: statistical approach for analysis	Item 18: missing data	Item 19: adverse events	Total # of Items = 19	
Burgin-Wolff (1991)	yes	yes	no	can't tell	no	no	yes	yes	no	yes	can't tell	can't tell	yes	yes	yes	can't tell	yes	no	no	9	(+) reported
Burgin-Wolff (2002)	yes	yes	can't tell	can't tell	no	no	yes	yes	no	yes	yes	yes	no	no	yes	no	yes	can't tell	no	9	(+) reported
Dickey (2000)	yes	yes	no	yes	no	yes	yes	yes	no	yes	yes	yes	can't tell	yes	yes	yes	yes	yes	no	14	(+) reported
Fotoulaki (1999)	yes	yes	no	yes	no	yes	yes	yes	no	yes	yes	yes	no	no	yes	no	yes	no	no	11	(+) reported
Kaukinen (2002)	yes	yes	no	yes	no	no	no	yes	no	yes	yes	yes	no	no	yes	no	yes	no	no	9	(+) reported
Lee (2003)	yes	yes	no	yes	no	yes	yes	yes	no	yes	yes	yes	can't tell	yes	yes	yes	yes	yes	no	14	(+) reported
Martini (2002)	yes	yes	no	yes	no	yes	yes	yes	no	yes	yes	yes	can't tell	no	yes	no	yes	no	no	11	(+) reported
Scalici (2003)	yes	yes	can't tell	can't tell	no	no	can't tell	can't tell	yes	yes	yes	yes	can't tell	can't tell	yes	can't tell	yes	no	no	8	(+) reported
Selby (1999)	yes	yes	no	yes	no	yes	yes	yes	no	yes	yes	yes	can't tell	yes	yes	can't tell	yes	no	no	12	(+) reported



**Table 12: Celiac 5—Quality assessment not applicable to the following study designs**

<b>Author (Year)</b>	<b>Study type</b>	
Jackson (1985)	questionnaire	
Lamontagne (2001)	questionnaire	
Ljungman (1993)	questionnaire	
Vahedi (2000)	abstract	

**Table 13: Celiac 5—Quality assessment pending**

<b>Author (Year)</b>
Baker (1975)
Bartholomeusz (1990)
Ciacci (2002)
Ciacci (2002)
Fabiani (1996)
Hogberg (2003)
Johnston (1998)
Kotze (2001)
Mayer (1991)
Skerritt (1991)
Vahedi (2003)
Volta (1990)

## Appendix K. Additional Acknowledgements

The UO-EPC gratefully acknowledges the following individuals who served on our Technical Expert Panel (TEP). Acknowledgement does not reflect endorsement of this report.

J Decker Butzner, MD  
Associate Professor Faculty of Medicine  
Dept. of Pediatrics Gastrointestinal Research  
Group  
Head, Division of Pediatric Gastroenterology  
and Nutrition  
Alberta Children's Hospital  
Calgary, AB

Richard J Farrell, MD  
Gastroenterology Division  
Beth Israel Deaconess Medical Center  
Harvard Medical School  
Boston, MA

Maha Guindi, MD  
Department of Laboratory Medicine and  
Pathobiology  
University of Toronto  
Department of Pathology, Toronto General  
Hospital  
Toronto, ON

Connie Switzer, MD  
Division of Gastroenterology &  
Department of Medicine  
University of Alberta  
Chair of Professional Advisory Board, CCA  
Edmonton, AB

Jerry Trier, MD  
Brigham and Women's Hospital  
Department of Medicine Gastroenterology  
Harvard Medical School  
Boston, MA

Sander JOV van Zanten, MD  
Department of Medicine  
Dalhousie University  
Queen Elizabeth II Health Sciences Center  
Victoria General Site  
Halifax, NS

\*Charles O Elson III, MD  
Department of Medicine  
University of Birmingham  
Birmingham, AL

\*Dr. Elson was named to the Technical Expert  
Panel given his position as Panel Chair of the  
NIH Consensus Conference on Celiac Disease

The UO-EPC gratefully acknowledges the following individuals who reviewed the initial draft of this evidence report, and provided constructive feedback. Acknowledgement does not reflect endorsement of this report.

David Atkins, MD, MPH  
Chief Medical Officer  
Center for Outcomes and Evidence  
Agency for Healthcare Research Quality  
Rockville, MD

Linda S. Book, MD  
Chief Pediatric Gastroenterology  
and Liver Transplantation  
University of Utah  
Primary Children's Medical Center  
Salt Lake City, UT

William Depew, MD  
Department of Gastroenterology,  
Hotel Dieu Hospital  
Division of Gastroenterology  
Queen's University  
Kingston, ON

Richard J Farrell, MD  
Gastroenterology Division  
Beth Israel Deaconess Medical Center  
Harvard Medical School,  
Boston, MA

Martin R. Howard, MD  
Department of Haematology  
York District Hospital  
York, UK

Richard A McPherson, MD  
Department of Pathology  
Medical College of Virginia Hospitals  
Richmond, VA

Grant Thompson  
Faculty of Medicine, Gastroenterology  
University of Ottawa  
Ottawa, ON

# Appendix L. Listing of Excluded Studies

## Objective 1 – Sensitivity and Specificity of Tests for CD

Abdulkarim A S, Murray J A. Review article: The diagnosis of coeliac disease. *Alimentary Pharmacology & Therapeutics* 2003;17(8):987-995. Not sensitivity or specificity of an identified test

Abdulkarim Ahmad S, Burgart Lawrence J, See Jacalyn et al. Etiology of nonresponsive celiac disease: results of a systematic approach. *American Journal of Gastroenterology* 2002;97(8):2016-2021. Not sensitivity or specificity of an identified test

Abdullah A M. Aetiology of chronic diarrhoea in children: Experience at King Khalid University Hospital, Riyadh, Saudi Arabia. *Ann Trop Paediatr* 1994;14(2):111-117. Not sensitivity or specificity of an identified test

Abdullah A M, Elrab M G, Al Herbish A et al. Serum antigliadin antibody as a marker of coeliac disease in children with chronic diarrhoea in Saudi Arabia. *Med Sci Res* 1994;22(3):229. Not sensitivity or specificity of an identified test

Abe K K, Michinaga I, Hiratsuka T et al. Association of DQB1(\*)0302 alloantigens in Japanese pediatric patients with steroid-sensitive nephrotic syndrome. *Nephron* 1995;70(1):28-34. Not sensitivity or specificity of an identified test

Abele M, Burk K, Schols L et al. The aetiology of sporadic adult-onset ataxia. *Brain* 2002;125(Pt 5):961-968. Not sensitivity or specificity of an identified test

Abele M, Schols L, Schwartz S et al. Prevalence of antigliadin antibodies in ataxia patients. *Neurology* 2003;60(10):1674-1675. Not sensitivity or specificity of an identified test

Abenoza P, Lillemoe T. CD34 and factor XIIIa in the differential diagnosis of dermatofibroma and dermatofibrosarcoma protuberans. *American Journal of Dermatopathology* 1993;15(5):429-434. Not sensitivity or specificity of an identified test

Ablin R J, Whyard T C. Identification and possible biological relevance of spermatozoal transglutaminase. *Experientia* 1991;47(3):277-279. Not sensitivity or specificity of an identified test

Acerini C L, Ahmed M L, Ross K M et al. Coeliac disease in children and adolescents with IDDM: clinical characteristics and response to gluten-free diet. *Diabetic Medicine - a Journal of the British Diabetic Association* 1998;15(1):38-44. Not sensitivity or specificity of an identified test

Achyuthan K E, Goodell R J, Kennedy J R et al. Immunochemical analyses of human plasma fibronectin-cytosolic transglutaminase interactions. *Journal of Immunological Methods* 1995;180(1):69-79. Not sensitivity or specificity of an identified test

Achyuthan K E, Slaughter T F, Santiago M A et al. Factor XIIIa-derived peptides inhibit transglutaminase activity. Localization of substrate recognition sites. *Journal of Biological Chemistry* 1993;268(28):21284-21292. Not sensitivity or specificity of an identified test

Ackerman Z, Eliakim R, Stalnikowicz R et al. Role of small bowel biopsy in the endoscopic evaluation of adults with iron deficiency anemia. *American Journal of Gastroenterology* 1996;91(10):2099-2102. Not sensitivity or specificity of an identified test

Adam Gregory C, Sorensen Erik J, Cravatt Benjamin F. Trifunctional chemical probes for the consolidated detection and identification of enzyme activities from complex proteomes. *Molecular & Cellular Proteomics - Mcp* 2002;1(10):828-835. Not sensitivity or specificity of an identified test

Adams E, Basten A, Rodda S et al. Human T-cell clones to the 70-kilodalton heat shock protein of *Mycobacterium leprae* define mycobacterium-specific epitopes rather than shared epitopes. *Infect Immun* 1997;65(3):1061-1070. Not sensitivity or specificity of an identified test

Adany R, Glukhova M A, Kabakov A Y et al. Characterisation of connective tissue cells containing factor XIII subunit a. *Journal of Clinical Pathology* 1988;41(1):49-56. Not sensitivity or specificity of an identified test

Adini A, Krugliak M, Ginsburg H et al. Transglutaminase in *Plasmodium* parasites: Activity and putative role in oocysts and blood stages. *Mol Biochem Parasitol* 2001;117(2):161-168. Not sensitivity or specificity of an identified test

Adleff V, Racz K, Szende B et al. Coexpression of p53 and tissue transglutaminase genes in human normal and pathologic adrenal tissues. *Journal of Steroid Biochemistry and Molecular Biology* 1998;66(1-2):27-33. Not sensitivity or specificity of an identified test

Aeschlimann D, Thomazy V. Protein crosslinking in assembly and remodelling of extracellular matrices: the role of transglutaminases. *Connective Tissue Research* 2000;41(1):1-27. Not sensitivity or specificity of an identified test

Aeschlimann D, Koeller M K, Allen-Hoffmann B L et al.

- Isolation of a cDNA encoding a novel member of the transglutaminase gene family from human keratinocytes. Detection and identification of transglutaminase gene products based on reverse transcription-polymerase chain reaction with degenerate primers. *Journal of Biological Chemistry* 1998;273(6):3452-3460. Not sensitivity or specificity of an identified test
- Aeschlimann D, Mosher D, Paulsson M. Tissue transglutaminase and factor XIII in cartilage and bone remodeling. *Semin Thromb Hemost* 1996;22(5):437-443. Not sensitivity or specificity of an identified test
- Aeschlimann D, Wetterwald A, Fleisch H et al. Expression of tissue transglutaminase in skeletal tissues correlates with events of terminal differentiation of chondrocytes. *J Cell Biol* 1993;120(6):1461-1470. Not sensitivity or specificity of an identified test
- Agardh D, Agardh E, Landin-Olsson M et al. Inverse relationship between GAD65 antibody levels and severe retinopathy in younger type 1 diabetic patients. *Diabetes Res Clin Pract* 1998;40(1):9-14. Not sensitivity or specificity of an identified test
- Agardh D, Gaur L K, Agardh E et al. HLA-DQB1\*0201/0302 is associated with severe retinopathy in patients with IDDM. *Diabetologia* 1996;39(11):1313-1317. Not sensitivity or specificity of an identified test
- Agardh D, Nilsson A, Carlsson A et al. Tissue transglutaminase autoantibodies and human leucocyte antigen in Down Syndrome patients with coeliac disease. *Acta Paediatrica (Oslo, Norway - 1992)* 2002;91(1):34-38. Improper control group
- Agardh D, Nilsson A, Tuomi T et al. Prediction of silent celiac disease at diagnosis of childhood type 1 diabetes by tissue transglutaminase autoantibodies and HLA. *Pediatr Diabetes* 2001;2(2):58-65. Not sensitivity or specificity of an identified test
- Agardh Daniel, Borulf Stefan, Lernmark Ake et al. Tissue transglutaminase immunoglobulin isotypes in children with untreated and treated celiac disease. *Journal of Pediatric Gastroenterology and Nutrition* 2003;36(1):77-82. Improper control group
- Agrawal S, Gupta A, Yachha S K et al. Association of human leucocyte-DR and DQ antigens in coeliac disease: a family study. *Journal of Gastroenterology and Hepatology* 2000;15(7):771-774. Improper control group
- Agreus L, Svardsudd K, Tibblin G et al. Endomysium antibodies are superior to gliadin antibodies in screening for coeliac disease in patients presenting supposed functional gastrointestinal symptoms. *Scandinavian Journal of Primary Health Care* 2000;18(2):105-110. Improper control group
- Aguirre J M, Rodriguez R, Oribe D et al. Dental enamel defects in celiac patients. *Oral Surgery, Oral Medicine, Oral Pathology, Oral Radiology, and Endodontics* 1997;84(6):646-650. Not sensitivity or specificity of an identified test
- Ahmed A R, Mohimen A, Yunis E J et al. Linkage of pemphigus vulgaris antibody to the major histocompatibility complex in healthy relatives of patients. *J Exp Med* 1993;177(2):419-424. Not sensitivity or specificity of an identified test
- Ahmed A R, Yunis J J, Marcus-Bagley D et al. Major histocompatibility complex susceptibility genes for dermatitis herpetiformis compared with those for gluten-sensitive enteropathy. *Journal of Experimental Medicine* 1993;178(6):2067-2075. Not sensitivity or specificity of an identified test
- Aho H J, Ping W, Soderstrom K O et al. Acid cysteine proteinase inhibitor in cutaneous lymphocytic infiltrates. *American Journal of Dermatopathology* 1995;17(2):115-125. Not sensitivity or specificity of an identified test
- Ahvazi Bijan, Kim Hee, Chul Kee et al. Three-dimensional structure of the human transglutaminase 3 enzyme: binding of calcium ions changes structure for activation. *Embo Journal* 2002;21(9):2055-2067. Not sensitivity or specificity of an identified test
- Aiba S, Tabata N, Ohtani H et al. CD34+ spindle-shaped cells selectively disappear from the skin lesion of scleroderma. *Archives of Dermatology* 1994;130(5):593-597. Not sensitivity or specificity of an identified test
- Aine L. Coeliac-type permanent-tooth enamel defects. *Ann Med* 1996;28(1):9-12. Not sensitivity or specificity of an identified test
- Aine L, Maki M, Reunala T. Coeliac-type dental enamel defects in patients with dermatitis herpetiformis. *Acta Dermato-Venereologica* 1992;72(1):25-27. Not sensitivity or specificity of an identified test
- Akagi Atsushi, Tajima Shingo, Ishibashi Akira et al. Type XVI collagen is expressed in factor XIIIa+ monocyte-derived dermal dendrocytes and constitutes a potential substrate for factor XIIIa. *Journal of Investigative Dermatology* 2002;118(2):267-274. Not sensitivity or specificity of an identified test
- Akimov S S, Belkin A M. Cell surface tissue transglutaminase is involved in adhesion and migration of monocytic cells on fibronectin. *Blood* 2001;98(5):1567-1576. Not sensitivity or specificity of an identified test
- Akimov S S, Belkin A M. Cell-surface transglutaminase promotes fibronectin assembly via interaction with the gelatin-binding domain of fibronectin: A role in TGF-beta-dependent matrix deposition. *Journal of Cell Science* 2001;114(16):2989-3000. Not sensitivity or specificity of an identified test
- Akimov S S, Krylov D, Fleischman L F et al. Tissue

transglutaminase is an integrin-binding adhesion coreceptor for fibronectin. *Journal of Cell Biology* 2000;148(4):825-838. Not sensitivity or specificity of an identified test

Akiyama H, Kondo H, Ikeda K et al. Immunohistochemical detection of coagulation factor XIIIa in postmortem human brain tissue. *Neuroscience Letters* 1995;202(1-2):29-32. Not sensitivity or specificity of an identified test

Akiyama M, Matsuo I, Shimizu H. Formation of cornified cell envelope in human hair follicle development. *British Journal of Dermatology* 2002;146(6):968-976. Not sensitivity or specificity of an identified test

Akiyama M, Smith L T, Yoneda K et al. Transglutaminase and major cornified cell envelope precursor proteins, loricrin, small proline-rich proteins 1 and 2, and involucrin are coordinately expressed in the sites defined to form hair canal in developing human hair follicle. *Exp Dermatol* 1999;8(4):313-314. Not sensitivity or specificity of an identified test

Aktay A N, Lee P C, Kumar V et al. The prevalence and clinical characteristics of celiac disease in juvenile diabetes in Wisconsin. *Journal of Pediatric Gastroenterology and Nutrition* 2001;33(4):462-465. Not sensitivity or specificity of an identified test

Al Ashwal A A, Shabib S M, Sakati N A et al. Prevalence and characteristics of celiac disease in type I diabetes mellitus in Saudi Arabia. *Saudi Med J* 2003;24(10):1113-1115. Not sensitivity or specificity of an identified test

Al Attas R A. How common is celiac disease in Eastern Saudi Arabia?. *Ann Saudi Med* 2002;22(5-6):315-319. Not sensitivity or specificity of an identified test

Al Bayatti S M. Etiology of chronic diarrhea. *Saudi Med J* 2002;23(6):675-679. Not sensitivity or specificity of an identified test

al Bayaty H F, Aldred M J, Walker D M et al. Salivary and serum antibodies to gliadin in the diagnosis of celiac disease. *Journal of Oral Pathology & Medicine - Official Publication of the International Association of Oral Pathologists and the American Academy of Oral Pathology* 1989;18(10):578-581. Serology <1990

al Dawoud A, Nakshabendi I, Foulis A et al. Immunohistochemical analysis of mucosal gamma-interferon production in coeliac disease. *Gut* 1992;33(11):1482-1486. Not sensitivity or specificity of an identified test

Al Harbi S, Fouad F, Kaaba S A. The first HLA anthropological study in the Kuwaiti population. *Eur J Immunogenet* 1994;21(5):295-300. Not sensitivity or specificity of an identified test

Al Mofleh I A, Jessen K, Al-Rashed Al-Hmaid et al. Pediatric esophagogastroduodenoscopy in Saudi Arabia. *Ann Saudi Med* 1989;9(1):32-35. Not sensitivity or

specificity of an identified test

al Tawaty A I, Elbargathy S M. Coeliac disease in north-eastern Libya. *Annals of Tropical Paediatrics* 1998;18(1):27-30. Not sensitivity or specificity of an identified test

Albert E D, Harms K, Wank R et al. Segregation analysis of HL-A antigens and haplotypes in 50 families of patients with coeliac disease. *Transplantation Proceedings* 1973;5(4):1785-1789. Not sensitivity or specificity of an identified test

Aldener-Cannava A, Olerup O. HLA-DOB1 'low-resolution' typing by PCR amplification with sequence-specific primers (PCR-SSP). *European Journal of Immunogenetics - Official Journal of the British Society for Histocompatibility and Immunogenetics* 1994;21(6):447-455. Not sensitivity or specificity of an identified test

Aldersley M A, Hamlin P J, Jones P F et al. No polymorphism in the tissue transglutaminase gene detected in coeliac disease patients. *Scandinavian Journal of Gastroenterology* 2000;35(1):61-63. Not sensitivity or specificity of an identified test

Aleanzi M, Demonte A M, Esper C et al. Celiac disease: antibody recognition against native and selectively deamidated gliadin peptides. *Clinical Chemistry* 2001;47(11):2023-2028. Not sensitivity or specificity of an identified test

Alfonso P, Soto C, Albar J P et al. Beta structure motif recognition by anti-gliadin antibodies in coeliac disease. *Febs Letters* 1998;427(1):36-40. Not sensitivity or specificity of an identified test

Alfos S, Boucheron C, Pallet V et al. A retinoic acid receptor antagonist suppresses brain retinoic acid receptor overexpression and reverses a working memory deficit induced by chronic ethanol consumption in mice. *Alcohol Clin Exp Res* 2001;25(10):1506-1514. Not sensitivity or specificity of an identified test

Alfos S, Higuere P, Pallet V et al. Chronic ethanol consumption increases the amount of mRNA for retinoic acid and triiodothyronine receptors in mouse brain. *Neurosci Lett* 1996;206(2-3):73-76. Not sensitivity or specificity of an identified test

Alkushi A, Irving J, Hsu F et al. Immunoprofile of cervical and endometrial adenocarcinomas using a tissue microarray. *Virchows Arch* 2003;442(3):271-277. Not sensitivity or specificity of an identified test

Alper C A, Fleischnick E, Awdeh Z et al. Extended major histocompatibility complex haplotypes in patients with gluten-sensitive enteropathy. *Journal of Clinical Investigation* 1987;79(1):251-256. Not sensitivity or specificity of an identified test

Alpers D H. Another piece to the celiac puzzle. *Journal of*

- Pediatric Gastroenterology and Nutrition 1987;6(1):5-7. Not sensitivity or specificity of an identified test
- Alsaigh N, Odze R, Goldman H et al. Gastric and esophageal intraepithelial lymphocytes in pediatric celiac disease. *American Journal of Surgical Pathology* 1996;20(7):865-870. Not sensitivity or specificity of an identified test
- Altmann D M. HLA-DQ associations with autoimmune disease. *Autoimmunity* 1992;14(1):79-83. Not sensitivity or specificity of an identified test
- Altmann D M, Sansom D, Marsh S G. What is the basis for HLA-DQ associations with autoimmune disease?. *Immunology Today* 1991;12(8):267-270. Not sensitivity or specificity of an identified test
- Altuntas B, Kansu A, Girgin N. Hepatic damage in gluten sensitive enteropathy. *Acta Paediatrica Japonica* 1998;Overseas Edition; 40(6):597-599. Not sensitivity or specificity of an identified test
- Altuntas cedil, Filik B, Ensari A et al. Can zinc deficiency be used as a marker for the diagnosis of celiac disease in Turkish children with short stature?. *Pediatr Int* 2000;42(6):682-684. Not sensitivity or specificity of an identified test
- Alvarez D, Vazquez H, Bai J C et al. Superior mesenteric artery blood flow in celiac disease. *Digestive Diseases and Sciences* 1993;38(7):1175-1182. Not sensitivity or specificity of an identified test
- Amann E, Abel K J, Grundmann U et al. Synthesis of human factor XIIIa in bacterial cells. *Behring Institute Mitteilungen* 1988;(82):35-42. Not sensitivity or specificity of an identified test
- Amanzadeh A, Shokrgozar M-A, Samadi-Bahrami Z et al. Frequency analysis of HLA antigens in Iranian patients with common variable immunodeficiency. *Arch Iran Med* 2003;6(1):16-22. Not sensitivity or specificity of an identified test
- Amara W, Husebekk A. Improved method for serological testing in celiac disease--IgA anti-endomysium antibody test: a comparison between monkey oesophagus and human umbilical cord as substrate in indirect immunofluorescence test. *Scandinavian Journal of Clinical and Laboratory Investigation* 1998;58(7):547-554. Not sensitivity or specificity of an identified test
- Ambrus A, Fesus L. Polyethylene glycol enhanced refolding of the recombinant human tissue transglutaminase. *Preparative Biochemistry & Biotechnology* 2001;31(1):59-70. Not sensitivity or specificity of an identified test
- Ambrus A, Banyai I, Weiss M S et al. Calcium binding of transglutaminases: a  $^{43}\text{Ca}$  NMR study combined with surface polarity analysis. *Journal of Biomolecular Structure & Dynamics* 2001;19(1):59-74. Not sensitivity or specificity of an identified test
- Amendola A, Gougeon M L, Poccia F et al. Induction of "tissue" transglutaminase in HIV pathogenesis: evidence for high rate of apoptosis of CD4+ T lymphocytes and accessory cells in lymphoid tissues. *Proceedings of the National Academy of Sciences of the United States of America* 1996;93(20):11057-11062. Not sensitivity or specificity of an identified test
- Amendola A, Lombardi G, Oliverio S et al. HIV-1 gp120-dependent induction of apoptosis in antigen-specific human T cell clones is characterized by 'tissue' transglutaminase expression and prevented by cyclosporin A. *FEBS Lett* 1994;339(3):258-264. Not sensitivity or specificity of an identified test
- Amendola A, Rodolfo C, Di Caro A et al. "Tissue" transglutaminase expression in HIV-infected cells: an enzyme with an antiviral effect?. *Annals of the New York Academy of Sciences* 2001;946:108-120. Not sensitivity or specificity of an identified test
- Amendola Alessandra, Fesus Laszlo, Piacentini Mauro et al. "Tissue" transglutaminase in AIDS. *Journal of Immunological Methods* 2002;265(1-2):145-159. Not sensitivity or specificity of an identified test
- Ament M E. Diagnosis and treatment of giardiasis. *Journal of Pediatrics* 1972;80(4):633-637. Not sensitivity or specificity of an identified test
- Ament M E, Ochs H D. Gastrointestinal manifestations of chronic granulomatous disease. *New England Journal of Medicine* 1973;288(8):382-387. Not sensitivity or specificity of an identified test
- Ament M E, Perera D R, Esther L J. Sucrase-isomaltase deficiency-a frequently misdiagnosed disease. *Journal of Pediatrics* 1973;83(5):721-727. Not sensitivity or specificity of an identified test
- Amin M, Eckhardt T, Kapitza S et al. Correlation between tissue transglutaminase antibodies and endomysium antibodies as diagnostic markers of coeliac disease. *Clinica Chimica Acta* 1999;International Journal of Clinical Chemistry; 282(1-2):219-225. Not sensitivity or specificity of an identified test
- Amoah J, Williams C, Long R G. Calmodulin content and activity in normal and coeliac duodenum. *Gut* 1992;33(3):303-306. Not sensitivity or specificity of an identified test
- Amoroso A, Mazzola G, Canale L et al. HLA in juvenile dermatitis herpetiformis: clinical heterogeneity correlated with DNA and serological polymorphism. *J Immunogenet* 1990;17(3):195-206. Not sensitivity or specificity of an identified test
- Anand B S, Piris J, Truelove S C. The role of various

cereals in coeliac disease. *Quarterly Journal of Medicine* 1978;47(185):101-110. Not sensitivity or specificity of an identified test

Anand B S, Piris J, Jerrome D W et al. The timing of histological damage following a single challenge with gluten in treated coeliac disease. *Quarterly Journal of Medicine* 1981;50(197):83-94. Not sensitivity or specificity of an identified test

Anantharaman V, Koonin E V, Aravind L. Peptide-N-glycanases and DNA repair proteins, Xp-C/Rad4, are, respectively, active and inactivated enzymes sharing a common transglutaminase fold. *Human Molecular Genetics* 2001;10(16):1627-1630. Not sensitivity or specificity of an identified test

Andersen K J, Schjonsby H, Skagen D W. Jejunal mucosal enzymes in untreated and treated coeliac disease. *Scandinavian Journal of Gastroenterology* 1983;18(2):251-256. Not sensitivity or specificity of an identified test

Andersen K J, Schjonsby H, Skagen D W et al. Enzyme activities in jejunal biopsy samples from patients with adult coeliac disease with and without steatorrhoea. *Scandinavian Journal of Gastroenterology* 1983;18(3):365-368. Not sensitivity or specificity of an identified test

Anderson R P, Degano P, Godkin A J et al. In vivo antigen challenge in celiac disease identifies a single transglutaminase-modified peptide as the dominant A-gliadin T-cell epitope. *Nature Medicine* 2000;6(3):337-342. Not sensitivity or specificity of an identified test

Andersson H, Bjorkman A C, Gillberg R et al. Influence of the amount of dietary gluten on gastrointestinal morphology and function in dermatitis herpetiformis. *Human Nutrition.Clinical Nutrition* 1984;38(4):279-285. Not sensitivity or specificity of an identified test

Ando M, Tatematsu T, Kunii S et al. Blockade effect of nerve growth factor on GM1 ganglioside-induced activation of transglutaminase in superior cervical sympathetic ganglia excised from adult rat. *Neurosci Res* 1994;19(4):373-378. Not sensitivity or specificity of an identified test

Ando Y, Imamura S, Owada M K et al. Calcium-induced intracellular cross-linking of lipocortin I by tissue transglutaminase in A431 cells. Augmentation by membrane phospholipids. *Journal of Biological Chemistry* 1991;266(2):1101-1108. Not sensitivity or specificity of an identified test

Ando Y, Imamura S, Owada M K et al. Cross-linking of lipocortin I and enhancement of its Ca<sup>2+</sup> sensitivity by tissue transglutaminase. *Biochemical and Biophysical Research Communications* 1989;163(2):944-951. Not sensitivity or specificity of an identified test

Andria G, Cucchiara S, De Vizia B. Brush border and cytosol peptidase activities of human small intestine in

normal subjects and celiac patients. *Pediatric Research* 1980;14(6):812-818. Not sensitivity or specificity of an identified test

Annibale B, Capurso G, Chistolini A et al. Gastrointestinal causes of refractory iron deficiency anemia in patients without gastrointestinal symptoms. *Am J Med* 2001;111(6):439-445. Not sensitivity or specificity of an identified test

Annibale B, Lahner E, Chistolini A et al. Endoscopic evaluation of the upper gastrointestinal tract is worthwhile in premenopausal women with iron-deficiency anaemia irrespective of menstrual flow. *Scandinavian Journal of Gastroenterology* 2003;38(3):239-245. Not sensitivity or specificity of an identified test

Annibale B, Severi C, Chistolini A et al. Efficacy of gluten-free diet alone on recovery from iron deficiency anaemia in adult celiac patients. *American Journal of Gastroenterology* 2001;96(1):132-137. Not sensitivity or specificity of an identified test

Annicchiarico-Petruzzelli M, Bernassola F, Lovat P E et al. Apoptosis in neuroblastomas induced by interferon-gamma involves the CD95/CD95L pathway. *Medical and Pediatric Oncology* 2001;36(1):115-117. Not sensitivity or specificity of an identified test

Anonymous. Collagenous sprue. *Lancet* 1971;1(7701):692 Not sensitivity or specificity of an identified test

Anonymous. Collagenous sprue. *British Medical Journal* 1971;2(753):65-66. Not sensitivity or specificity of an identified test

Anonymous. Giardia lamblia and coeliac disease. *Lancet* 1973;2(7821):138 Not sensitivity or specificity of an identified test

Anonymous. The gut and dermatitis herpetiformis. *British Medical Journal* 1971;4(778):5 Not sensitivity or specificity of an identified test

Anonymous. Medical grand rounds from the University of Alabama Medical Center. *Southern Medical Journal* 1969;62(1):65-70. Not sensitivity or specificity of an identified test

Anonymous. Dermatitis herpetiformis--the thin veneer?. *Lancet* 1978;2(8087):458-459. Not sensitivity or specificity of an identified test

Anonymous. Bird fancier's lung and jejunal villous atrophy. *Med J Aust* 1976;1(22):813-814. Not sensitivity or specificity of an identified test

Anonymous. A guide for patients. *Pract Gastroenterol* 2002;26(11):58-61. Not sensitivity or specificity of an identified test

- Anonymous. Highly inheritable coeliac disease. *Med Today* 2002;3(7):15 Not sensitivity or specificity of an identified test
- Anonymous. Latent coeliac disease. *Arch Dis Child* 1990;65(10):1192 Not sensitivity or specificity of an identified test
- Anonymous. A new type intestinal lymphoma. *J Clin Pathol Mol Pathol* 2002;55(5):314 Not sensitivity or specificity of an identified test
- Anonymous. Oats safe for coeliac disease patients. *Pharm J* 2002;268(7185):200 Not sensitivity or specificity of an identified test
- Anonymous. On the pathogenesis of gluten sensitive enteropathy. *Nutr Rev* 1974;32(9):267-270. Not sensitivity or specificity of an identified test
- Anonymous. PIR quiz. *Pediatr Rev* 2003;24(6):205-206. Not sensitivity or specificity of an identified test
- Anstey A, Cerio R, Ramnarain N et al. Desmoplastic malignant melanoma. An immunocytochemical study of 25 cases. *American Journal of Dermatopathology* 1994;16(1):14-22. Not sensitivity or specificity of an identified test
- Anstey A, Wilkinson J D, Walshe M M. Dermatitis herpetiformis in monozygous twins--concordance for dermatitis herpetiformis and gluten-sensitive enteropathy. *Clinical and Experimental Dermatology* 1991;16(1):51-52. Not sensitivity or specificity of an identified test
- Antonoli D A. Celiac disease: A progress report. *Mod Pathol* 2003;16(4):342-346. Not sensitivity or specificity of an identified test
- Antonowicz I, Shwachman H, Sotoo I. Beta-galactosidase and beta-glucuronidase activities in intestinal mucosa of infants and children. *Pediatrics* 1971;47(4):737-744. Not sensitivity or specificity of an identified test
- Antonyak M A, Singh U S, Lee D A et al. Effects of tissue transglutaminase on retinoic acid-induced cellular differentiation and protection against apoptosis. *Journal of Biological Chemistry* 2001;276(36):33582-33587. Not sensitivity or specificity of an identified test
- Antonyak Marc A, Boehm Jason E, Cerione Richard A. Phosphoinositide 3-kinase activity is required for retinoic acid-induced expression and activation of the tissue transglutaminase. *Journal of Biological Chemistry* 2002;277(17):14712-14716. Not sensitivity or specificity of an identified test
- Aoun J P, Moukarbel N, Aftimos G. Value of duodenal endoscopic markers of villous atrophy. *Le Journal Medical Libanais. The Lebanese Medical Journal* 2001;49(6):319-324. Not sensitivity or specificity of an identified test
- Appelt D M, Balin B J. The association of tissue transglutaminase with human recombinant tau results in the formation of insoluble filamentous structures. *Brain Research* 1997;745(1-2):21-31. Not sensitivity or specificity of an identified test
- Appelt D M, Kopen G C, Boyne L J et al. Localization of transglutaminase in hippocampal neurons: implications for Alzheimer's disease. *Journal of Histochemistry and Cytochemistry - Official Journal of the Histochemistry Society* 1996;44(12):1421-1427. Not sensitivity or specificity of an identified test
- Applegate D, Steben L S, Hertzberg K M et al. The alpha(E)C domain of human fibrinogen-420 is a stable and early plasmin cleavage product. *Blood* 2000;95(7):2297-2303. Not sensitivity or specificity of an identified test
- Arai T, Michalski J P, McCombs C C et al. T cell receptor gamma gene polymorphisms and class II human lymphocyte antigen genotypes in patients with celiac disease from the west of Ireland. *American Journal of the Medical Sciences* 1995;309(3):171-178. Not sensitivity or specificity of an identified test
- Arany I, Evans T, Tyring S K. Tissue specific HPV expression and downregulation of local immune responses in condylomas from HIV seropositive individuals. *Sexually Transmitted Infections* 1998;74(5):349-353. Not sensitivity or specificity of an identified test
- Arato A, Hacsek G, Savilahti E. Immunohistochemical findings in the jejunal mucosa of patients with coeliac disease. *Scandinavian Journal of Gastroenterology. Supplement* 1998;2283-10. Not sensitivity or specificity of an identified test
- Arato A, Savilahti E, Tainio V M et al. HLA-DR expression, natural killer cells and IgE containing cells in the jejunal mucosa of coeliac children. *Gut* 1987;28(8):988-994. Not sensitivity or specificity of an identified test
- Arato Andras, Korner Anna, Veres Gabor et al. Frequency of coeliac disease in Hungarian children with type 1 diabetes mellitus. *European Journal of Pediatrics* 2002;162(1):1-5. Not sensitivity or specificity of an identified test
- Araya M, Henderson-Smart D. Letter: Coeliac disease: an undiagnosed disorder with important implications. *Medical Journal of Australia* 1974;1(14):549 Not sensitivity or specificity of an identified test
- Araya M, Walker-Smith J A. Specificity of ultrastructural changes of small intestinal epithelium in early childhood. *Archives of Disease in Childhood* 1975;50(11):844-855. Not sensitivity or specificity of an identified test
- Araya M, Mondragon A, Perez-Bravo F et al. Celiac disease in a Chilean population carrying Amerindian traits. *Journal of Pediatric Gastroenterology and Nutrition* 2000;31(4):381-386. Not sensitivity or specificity of an identified test

identified test

Arellanes-Garcia L, Bautista N, Mora P et al. HLA-DR is strongly associated with Vogt-Koyanagi-Harada disease in Mexican Mestizo patients. *Ocul Immunol Inflamm* 1998;6(2):93-100. Not sensitivity or specificity of an identified test

Arentz-Hansen E H, McAdam S N, Molberg O et al. Production of a panel of recombinant gliadins for the characterisation of T cell reactivity in coeliac disease. *Gut* 2000;46(1):46-51. Not sensitivity or specificity of an identified test

Arentz-Hansen H, Korner R, Molberg O et al. The intestinal T cell response to alpha-gliadin in adult celiac disease is focused on a single deamidated glutamine targeted by tissue transglutaminase. *Journal of Experimental Medicine* 2000;191(4):603-612. Not sensitivity or specificity of an identified test

Arentz-Hansen Helene, McAdam Stephen N, Molberg Oyvind et al. Celiac lesion T cells recognize epitopes that cluster in regions of gliadins rich in proline residues. *Gastroenterology* 2002;123(3):803-809. Not sensitivity or specificity of an identified test

Argenyi Z B, Santa Cruz D, Bromley C. Comparative light-microscopic and immunohistochemical study of traumatic and palisaded encapsulated neuromas of the skin. *American Journal of Dermatopathology* 1992;14(6):504-510. Not sensitivity or specificity of an identified test

Arilla E, Hernandez M, Polanco I et al. Modification of somatostatin content and binding in jejunum from celiac children. *Journal of Pediatric Gastroenterology and Nutrition* 1987;6(2):228-233. Not sensitivity or specificity of an identified test

Armes J, Gee D C, Macrae F A et al. Collagenous colitis: jejunal and colorectal pathology. *Journal of Clinical Pathology* 1992;45(9):784-787. Not sensitivity or specificity of an identified test

Arnaiz-Villena A, Benmamar D, Alvarez M et al. HLA allele and haplotype frequencies in Algerians: Relatedness to Spaniards and Basques. *Hum Immunol* 1995;43(4):259-268. Not sensitivity or specificity of an identified test

Arnaiz-Villena A, Martinez-Laso J, Corell A et al. Frequencies of HLA-A24 and HLA-DR4-DQ8 are increased and that of HLA-B blank is decreased in chronic toxic oil syndrome. *Eur J Immunogenet* 1996;23(3):211-219. Not sensitivity or specificity of an identified test

Arnason A, Skaftadottir I, Sigmundsson J et al. The association between coeliac disease, dermatitis herpetiformis and certain HLA-antigens in Icelanders. *European Journal of Immunogenetics - Official Journal of the British Society for Histocompatibility and Immunogenetics* 1994;21(6):457-460. Improper control group

Arnason J A, Gudjonsson H, Freysdottir J et al. Do adults with high gliadin antibody concentrations have subclinical gluten intolerance?. *Gut* 1992;33(2):194-197. Not sensitivity or specificity of an identified test

Arnaud-Battandier F, Cerf-Bensusan N, Amsellem R et al. Increased HLA-DR expression by enterocytes in children with celiac disease. *Gastroenterology* 1986;91(5):1206-1212. Not sensitivity or specificity of an identified test

Arnaud-Battandier F, Schmitz J, Muller J Y et al. HLA and gluten cytotoxicity in vitro. *Gastroenterology* 1983;84(1):201. Not sensitivity or specificity of an identified test

Arnett F C, Reveille J D, Moutsopoulos H M et al. Ribosomal P autoantibodies in systemic lupus erythematosus: Frequencies in different ethnic groups and clinical and immunogenetic associations. *Arthritis Rheum* 1996;39(11):1833-1839. Not sensitivity or specificity of an identified test

Arnett F C, Targoff I N, Mimori T et al. Interrelationship of major histocompatibility complex class II alleles and autoantibodies in four ethnic groups with various forms of myositis. *Arthritis Rheum* 1996;39(9):1507-1518. Not sensitivity or specificity of an identified test

Arnett F C, Thiagarajan P, Ahn C et al. Associations of anti-beta2-microglobulin I autoantibodies with HLA class II alleles in three ethnic groups. *Arthritis Rheum* 1999;42(2):268-274. Not sensitivity or specificity of an identified test

Arranz E, Ferguson A. Intestinal antibody pattern of celiac disease: occurrence in patients with normal jejunal biopsy histology. *Gastroenterology* 1993;104(5):1263-1272. Not sensitivity or specificity of an identified test

Arranz E, Ferguson A. Jejunal fluid antibodies and mucosal gamma/delta IEL in latent and potential coeliac disease. *Adv Exp Med Biol* 1995;371(B):1345-1348. Not sensitivity or specificity of an identified test

Arranz E, Bode J, Kingstone K et al. Intestinal antibody pattern of coeliac disease: association with gamma/delta T cell receptor expression by intraepithelial lymphocytes, and other indices of potential coeliac disease. *Gut* 1994;35(4):476-482. Not sensitivity or specificity of an identified test

Arranz E, Telleria J J, Sanz A et al. HLA-DQA1\*0501 and DQB1\*02 homozygosity and disease susceptibility in Spanish coeliac patients. *Experimental and Clinical Immunogenetics* 1997;14(4):286-290. Improper control group

Arrese Estrada J, Pierard G E. Dendrocytes in verruga peruana and bacillary angiomatosis. *Dermatology (Basel, Switzerland)* 1992;184(1):22-25. Not sensitivity or specificity of an identified test

Arroyo H A, De Rosa S, Ruggieri V et al. Epilepsy, occipital calcifications, and oligosymptomatic celiac disease in childhood. *J Child Neurol* 2002;17(11):800-806. Not sensitivity or specificity of an identified test

Arthur A B, Clayton B E, Cottom D G et al. Importance of disaccharide intolerance in the treatment of coeliac disease. *Lancet* 1966;1(7430):172-174. Not sensitivity or specificity of an identified test

Artuc Metin, Steckelings U, Muscha Grutzkau et al. A long-term coculture model for the study of mast cell-keratinocyte interactions. *Journal of Investigative Dermatology* 2002;119(2):411-415. Not sensitivity or specificity of an identified test

Arvola Taina, Mustalahti Kirsi, Saha Marja et al. Celiac disease, thyrotoxicosis, and autoimmune hepatitis in a child. *Journal of Pediatric Gastroenterology and Nutrition* 2002;35(1):90-92. Not sensitivity or specificity of an identified test

Ascher H, Holm K, Kristiansson B et al. Different features of coeliac disease in two neighbouring countries. *Archives of Disease in Childhood* 1993;69(3):375-380. Not sensitivity or specificity of an identified test

Ascher H, Krantz I, Kristiansson B. Increasing incidence of coeliac disease in Sweden. *Arch Dis Child* 1991;66(5):608-611. Not sensitivity or specificity of an identified test

Ascher H, Kristiansson B, Krasilnikoff Collin et al. The highest incidence of celiac disease in Europe: The Swedish experience. *Journal of Pediatric Gastroenterology and Nutrition* 1997;24(5):S3-S6. Not sensitivity or specificity of an identified test

Ashabani A, Errabtea H, Shapan A et al. Serologic markers of untreated celiac disease in Libyan children: antigliadin, antitransglutaminase, antiendomysial, and anticalreticulin antibodies. *Journal of Pediatric Gastroenterology and Nutrition* 2001;33(3):276-282. Improper control group

Ashabani Abdelhakim, Abushofa Umaima, Abusrewill Suliman et al. The prevalence of coeliac disease in Libyan children with type 1 diabetes mellitus. *Diabetes/Metabolism Research and Reviews* 2003;19(1):69-75. Not sensitivity or specificity of an identified test

Ashkenazi A, Berrebi A, Levi R et al. Frequency of HLA-B8 in Israeli children with celiac disease. *Israel Journal of Medical Sciences* 1979;15(10):826-828. Not sensitivity or specificity of an identified test

Asquith P. Adult coeliac disease and malignancy. *Ir Med J* 1974;67(15):417-420. Not sensitivity or specificity of an identified test

Asquith P, Johnson A G, Cooke W T. Scanning electron microscopy of normal and celiac jejunal mucosa. *American*

*Journal of Digestive Diseases* 1970;15(6):511-521. Unable to extract data

Asselineau D, Bernard B A, Bailly C et al. Retinoic acid improves epidermal morphogenesis. *Developmental Biology* 1989;133(2):322-335. Not sensitivity or specificity of an identified test

Assi A, Declich P, Iacobellis M et al. Secretory meningioma, a rare meningioma subtype with characteristic glandular differentiation: an histological and immunohistochemical study of 9 cases. *Advances in Clinical Pathology - the Official Journal of Adriatic Society of Pathology* 1999;3(3):47-53. Not sensitivity or specificity of an identified test

Astill T P, Ellis R J, Arif S et al. Promiscuous binding of proinsulin peptides to Type 1 diabetes-permissive and -protective HLA class II molecules. *Diabetologia* 2003;46(4):496-503. Not sensitivity or specificity of an identified test

Atherton D J. Diagnosis and management of skin disorders caused by food allergy. *Annals of Allergy* 1984;53(6 Pt 2):623-628. Not sensitivity or specificity of an identified test

Atkinson K, Tokmakajian S, Watson W et al. Evaluation of the endomysial antibody for celiac disease: operating properties and associated cost implications in clinical practice. *Canadian Journal of Gastroenterology = Journal Canadien De Gastroenterologie* 1997;11(8):673-677. Improper control group

Auld G C, Ritchie H, Robbie L A et al. Thrombin upregulates tissue transglutaminase in endothelial cells: a potential role for tissue transglutaminase in stability of atherosclerotic plaque. *Arteriosclerosis, Thrombosis, and Vascular Biology* 2001;21(10):1689-1694. Not sensitivity or specificity of an identified test

Auricchio S. Gluten-sensitive enteropathy and infant nutrition. *Journal of Pediatric Gastroenterology and Nutrition* 1983;2 Suppl 1s304-s309. Not sensitivity or specificity of an identified test

Auricchio S, Troncone R. Effects of small amounts of gluten in the diet of coeliac patients. *Panminerva Medica* 1991;33(2):83-85. Not sensitivity or specificity of an identified test

Auricchio S, Greco L, Troncone R. Gluten-sensitive enteropathy in childhood. *Pediatric Clinics of North America* 1988;35(1):157-187. Not sensitivity or specificity of an identified test

Auricchio S, Mazzacca G, Tosi R et al. Coeliac disease as a familial condition: Identification of asymptomatic coeliac patients within family groups. *Gastroenterol Int* 1988;1(1):25-31. Not sensitivity or specificity of an identified test

- Auricchio S, Troncone R, Maurano F. Coeliac disease in the year 2000. *Italian Journal of Gastroenterology and Hepatology* 1999;31(8):773-780. Not sensitivity or specificity of an identified test
- Autuori F, Farrace M G, Oliverio S et al. "Tissue" transglutaminase and apoptosis. *Advances in Biochemical Engineering/Biotechnology* 1998;62:129-136. Not sensitivity or specificity of an identified test
- Avigad S, Manuel P, Bampoe V. Small-intestinal mucosal antibodies against antigens of non-pathogenic luminal or mucosal bacteria in young children with and without diarrhoea. *Lancet* 1978;1(8074):1130-1132. Not sensitivity or specificity of an identified test
- Avila-Portillo L M, Vargas-Alarcon G, Andrade F et al. Linkage disequilibrium of HLA-DR3 and HLA-DR4 with HLA-B alleles in Mexican patients with rheumatoid arthritis. *Clin Exp Rheumatol* 1994;12(5):497-502. Not sensitivity or specificity of an identified test
- Azurdia R M, Luzzi G A, Byren I et al. Lichen sclerosis in adult men: A study of HLA associations and susceptibility to autoimmune disease. *Br J Dermatol* 1999;140(1):79-83. Not sensitivity or specificity of an identified test
- Baden H P. Common transglutaminase substrates shared by hair, epidermis and nail and their function. *Journal of Dermatological Science* 1994;7 Suppl20-s26. Not sensitivity or specificity of an identified test
- Baden H P, Kubilus J K, Phillips S B. Characterization of monoclonal antibodies generated to the cornified envelope of human cultured keratinocytes. *Journal of Investigative Dermatology* 1987;89(5):454-459. Not sensitivity or specificity of an identified test
- Baden H P, Kubilus J, Phillips S B et al. A new class of soluble basic protein precursors of the cornified envelope of mammalian epidermis. *Biochimica Et Biophysica Acta* 1987;925(1):63-73. Not sensitivity or specificity of an identified test
- Badenhoop K, Donner H, Pani M et al. Genetic susceptibility to type 1 diabetes: clinical and molecular heterogeneity of IDDM1 and IDDM2 in a German population. *Experimental and Clinical Endocrinology & Diabetes - Official Journal, German Society of Endocrinology and German Diabetes Association* 1999;107 Suppl 3s89-s92. Not sensitivity or specificity of an identified test
- Bagdi E, Diss T C, Munson P et al. Mucosal intra-epithelial lymphocytes in enteropathy-associated T-cell lymphoma, ulcerative jejunitis, and refractory celiac disease constitute a neoplastic population. *Blood* 1999;94(1):260-264. Not sensitivity or specificity of an identified test
- Bagnasco M, Montagna P, De Alessandri A et al. IgA antiendomysium antibodies in human umbilical cord sections as a screening test in relatives of patients with celiac disease. *Allergy* 1997;52(10):1017-1021. Improper control group
- Bahna S L, Tateno K, Heiner D C. Elevated IgD antibodies to wheat in celiac disease. *Annals of Allergy* 1980;44(3):146-151. Not sensitivity or specificity of an identified test
- Bai J C. Malabsorption syndromes. *Digestion* 1998;59(5):530-546. Not sensitivity or specificity of an identified test
- Bai J C, Sambuelli A, Sugai E et al. Gluten challenge in patients with celiac disease: evaluation of alpha 1-antitrypsin clearance. *American Journal of Gastroenterology* 1991;86(3):312-316. Not sensitivity or specificity of an identified test
- Bai J, Moran C, Martinez C et al. Celiac sprue after surgery of the upper gastrointestinal tract. Report of 10 patients with special attention to diagnosis, clinical behavior, and follow-up. *Journal of Clinical Gastroenterology* 1991;13(5):521-524. Not sensitivity or specificity of an identified test
- Bailey D S, Freedman A R, Price S C et al. Early biochemical responses of the small intestine of coeliac patients to wheat gluten. *Gut* 1989;30(1):78-85. Not sensitivity or specificity of an identified test
- Baker P G, Read A E. Oats and barley toxicity in coeliac patients. *Postgrad Med J* 1976;52(607):264-268. Not sensitivity or specificity of an identified test
- Baker P G, Barry R E, Read A E. Detection of continuing gluten ingestion in treated coeliac patients. *British Medical Journal* 1975;1(5956):486-488. Not sensitivity or specificity of an identified test
- Baklien K, Brandtzaeg P, Fausa O. Immunoglobulins in jejunal mucosa and serum from patients with adult coeliac disease. *Scandinavian Journal of Gastroenterology* 1977;12(2):149-159. Not sensitivity or specificity of an identified test
- Baklien K, Fausa O, Brandtzaeg P. Malabsorption, villous atrophy, and excessive serum IgA in a patient with unusual intestinal immunocyte infiltration. *Scandinavian Journal of Gastroenterology* 1977;12(4):421-432. Not sensitivity or specificity of an identified test
- Balaji Madhuri, Shtauvere-Brameus A, Balaji V et al. Women diagnosed with gestational diabetes mellitus do not carry antibodies against minor islet cell antigens. *Annals of the New York Academy of Sciences* 2002;958:281-284. Not sensitivity or specificity of an identified test
- Balas A, Garcia-Novo M D, Martinez J et al. Intestinal alpha beta T cells of symptomatic celiac disease patients show oligoclonal TCRBV repertoire but polyclonal rearrangement patterns. *Human Immunology* 2000;61(3):247-254. Not sensitivity or specificity of an

identified test

Balas A, Santos S, Aviles M J et al. Elongation of the cytoplasmic domain, due to a point deletion at exon 7, results in an HLA-C null allele, Cw\*0409 N. *Tissue Antigens* 2002;59(2):95-100. Not sensitivity or specificity of an identified test

Balas A, Vicario J L, Zambrano A et al. Absolute linkage of celiac disease and dermatitis herpetiformis to HLA-DQ. *Tissue Antigens* 1997;50(1):52-56. Improper control group

Baldas V, Tommasini A, Trevisiol C et al. Development of a novel rapid non-invasive screening test for coeliac disease. *Gut* 2000;47(5):628-631. Improper control group

Balducci-Silano P L, Layrisse Z E. HLA-DP and susceptibility to insulin-dependent diabetes mellitus in an ethnically mixed population. Associations with other HLA-alleles. *J Autoimmun* 1995;8(3):425-437. Not sensitivity or specificity of an identified test

Baldwin J A. Schizophrenia and physical disease. *Psychological Medicine* 1979;9(4):611-618. Not sensitivity or specificity of an identified test

Ball D J, Mayhew S, Vernon D I et al. Decreased efficiency of trypsinization of cells following photodynamic therapy: evaluation of a role for tissue transglutaminase. *Photochemistry and Photobiology* 2001;73(1):47-53. Not sensitivity or specificity of an identified test

Balster Douglas A, O'Dorisio M, Sue Albers et al. Suppression of tumorigenicity in neuroblastoma cells by upregulation of human vasoactive intestinal peptide receptor type 1. *Regulatory Peptides* 2002;109(1-3):155-165. Not sensitivity or specificity of an identified test

Bansal A S, Bruce J, Thomson A et al. Serum levels of sCD23, interleukin-10 and interferon-gamma in patients with coeliac disease. *J Gastroenterol Hepatol* 1997;12(9-10):685-689. Not sensitivity or specificity of an identified test

Banwell J G, Gorbach S L, Mitra R et al. Tropical sprue and malnutrition in West Bengal. II. Fluid and electrolyte transport in the small intestine. *American Journal of Clinical Nutrition* 1970;23(12):1559-1568. Not sensitivity or specificity of an identified test

Bao F, Yu L, Babu S et al. One third of HLA DQ2 homozygous patients with type 1 diabetes express celiac disease-associated transglutaminase autoantibodies. *Journal of Autoimmunity* 1999;13(1):143-148. Improper control group

Bar H, Schlote W. Malignant melanoma in the CNS, subtyping and immunocytochemistry. *Clinical Neuropathology* 1997;16(6):337-345. Not sensitivity or specificity of an identified test

Barakat M H, Ali S M, Badawi A R et al. Peroral

endoscopic duodenal biopsy in infants and children. *Acta Paediatrica Scandinavica* 1983;72(4):563-569. Not sensitivity or specificity of an identified test

Barbato M, Miglietta M R, Viola F et al. Impact of modification of diagnostic techniques and criteria on the presentation of celiac disease in the last 16 years. Observation in Rome. *Minerva Pediatrica* 1996;48(9):359-363. Not sensitivity or specificity of an identified test

Barbato M, Miglietta M R, Viola F et al. Value of anti gliadin antibodies (AGA) in latent coeliac disease (CD). *Minerva Pediatrica* 2000;52(11):617-621. Test-specific exclusion

Barbeau W E, Novascone M A, Elgert K D. Is celiac disease due to molecular mimicry between gliadin peptide-HLA class II molecule-T cell interactions and those of some unidentified superantigen?. *Molecular Immunology* 1997;34(7):535-541. Not sensitivity or specificity of an identified test

Barbera C, Fusco P, Ansaldi N et al. HLA and antiglutin antibodies in children with celiac disease. *Diagn Clin Immunol* 1987;5(3):158-161. Not sensitivity or specificity of an identified test

Bardare M, Villani R, Giunta A. Anti reticulin antibodies in malabsorption syndromes. *Helv Paediatr Acta* 1974;29(3):203-211. Not sensitivity or specificity of an identified test

Bardella M T, Fredella C, Prampolini L et al. Gluten sensitivity in monozygous twins: A long-term follow-up of five pairs. *American Journal of Gastroenterology* 2000;95(6):1503-1505. Not sensitivity or specificity of an identified test

Bardella M T, Minoli G, Radaelli F et al. Reevaluation of duodenal endoscopic markers in the diagnosis of celiac disease. *Gastrointestinal Endoscopy* 2000;51(6):714-716. Not sensitivity or specificity of an identified test

Bardella M T, Minoli G, Ravizza D et al. Increased prevalence of celiac disease in patients with dyspepsia. *Archives of Internal Medicine* 2000;160(10):1489-1491. Not sensitivity or specificity of an identified test

Bardella M T, Molteni N, Cesana B et al. IgA anti gliadin antibodies, cellobiose/mannitol sugar test, and carotenemia in the diagnosis of and screening for celiac disease. *American Journal of Gastroenterology* 1991;86(3):309-311. Improper control group

Bardella M T, Molteni N, Quatrini M et al. Clinical, biochemical and histological abnormalities in adult celiac patients on gluten-free diet. *Gastroenterologie Clinique Et Biologique* 1985;9(11):787-789. Not sensitivity or specificity of an identified test

Bardella M T, Quatrini M, Zuin M et al. Screening patients with celiac disease for primary biliary cirrhosis and vice

- versa. *American Journal of Gastroenterology* 1997;92(9):1524-1526. Not sensitivity or specificity of an identified test
- Bardella M T, Vecchi M, Conte D et al. Chronic unexplained hypertransaminasemia may be caused by occult celiac disease. *Hepatology (Baltimore, Md.)* 1999;29(3):654-657. Not sensitivity or specificity of an identified test
- Bardos H, Juhasz A, Repassy G et al. Fibrin deposition in squamous cell carcinomas of the larynx and hypopharynx. *Thrombosis and Haemostasis* 1998;80(5):767-772. Not sensitivity or specificity of an identified test
- Barera G, Bianchi C, Calisti L et al. Screening of diabetic children for coeliac disease with antigliadin antibodies and HLA typing. *Archives of Disease in Childhood* 1991;66(4):491-494. Not sensitivity or specificity of an identified test
- Barera Graziano, Bonfanti Riccardo, Viscardi Matteo et al. Occurrence of celiac disease after onset of type 1 diabetes: a 6-year prospective longitudinal study. *Pediatrics* 2002;109(5):833-838. Not sensitivity or specificity of an identified test
- Barlow J M, Johnson C D, Stephens D H. Celiac disease: how common is jejunoileal fold pattern reversal found at small-bowel follow-through?. *Ajr.American Journal of Roentgenology* 1996;166(3):575-577. Not sensitivity or specificity of an identified test
- Barna M, Pinter E. Anti-gliadin and anti-endomysium antibodies in children with celiac disease consuming a gluten free diet. *Zeitschrift Fur Ernahrungswissenschaft* 1998;37 Suppl 1103-105. Not sensitivity or specificity of an identified test
- Barnes G L. Duodenal biopsy in 75 New Zealand children. *New Zealand Medical Journal* 1976;83(564):349-351. Not sensitivity or specificity of an identified test
- Barnes R M, Lewis-Jones M S. Isotype distribution and serial levels of antibodies reactive with dietary protein antigens in dermatitis herpetiformis. *Journal of Clinical & Laboratory Immunology* 1989;30(2):87-91. Not sensitivity or specificity of an identified test
- Barnes R M, Harvey M M, Blears J et al. IgG subclass of human serum antibodies reactive with dietary proteins. *International Archives of Allergy and Applied Immunology* 1986;81(2):141-147. Not sensitivity or specificity of an identified test
- Barr G D, Grehan M J. Coeliac disease. *Med J Aust* 1998;169(2):109-114. Not sensitivity or specificity of an identified test
- Barr G, Cameron D, King S et al. Current status and management of coeliac disease. *Med Today* 2003;4(6):30-39. Not sensitivity or specificity of an identified test
- Barresi G, Tuccari G, Magazzu G. Neutral mucins in coeliac disease. *Basic and Applied Histochemistry* 1983;27(1):55-60. Not sensitivity or specificity of an identified test
- Barresi G, Tuccari G, Magazzu G et al. Acid mucins in duodeno-jejunal biopsies from infants with coeliac disease. *Applied Pathology* 1983;1(1):34-40. Not sensitivity or specificity of an identified test
- Barry E L, Mosher D F. Binding and degradation of blood coagulation factor XIII by cultured fibroblasts. *Journal of Biological Chemistry* 1990;265(16):9302-9307. Not sensitivity or specificity of an identified test
- Barry R E. 'Coeliac disease and malignancy'. *Tgastro-Ent* 1973;16(1):23-34. Not sensitivity or specificity of an identified test
- Barry R E, Read A E. Coeliac disease and malignancy. *Quarterly Journal of Medicine* 1973;42(168):665-675. Not sensitivity or specificity of an identified test
- Barshack I, Goldberg I, Chowers Y et al. Immunohistochemical analysis of candidate gene product expression in the duodenal epithelium of children with coeliac sprue. *Journal of Clinical Pathology* 2001;54(9):684-688. Not sensitivity or specificity of an identified test
- Barsoum R, Nabil M, Saady G et al. Immunoglobulin-A and the pathogenesis of schistosomal glomerulopathy. *Kidney International* 1996;50(3):920-928. Not sensitivity or specificity of an identified test
- Barta L, Kosnai I, Molnar M et al. Simultaneous occurrence of diabetes mellitus and coeliac disease. *Acta Paediatrica Hungarica* 1985;26(4):303-306. Not sensitivity or specificity of an identified test
- Barta Z, Csipo tilde, Szabo G G et al. Seroreactivity against *Saccharomyces cerevisiae* in patients with Crohn's disease and celiac disease. *World J Gastroenterol* 2003;9(10):2308-2312. Not sensitivity or specificity of an identified test
- Bartholomeusz R C, Labrooy J T, Davidson G P et al. Polymeric IgA antibody to gliadin in the serum of patients with coeliac disease. *Journal of Gastroenterology and Hepatology* 1990;5(6):675-681. Not sensitivity or specificity of an identified test
- Batar P, Dale G L. Simultaneous engagement of thrombin and Fc gamma RIIA receptors results in platelets expressing high levels of procoagulant proteins. *Journal of Laboratory and Clinical Medicine* 2001;138(6):393-402. Not sensitivity or specificity of an identified test
- Bateson M C, Hopwood D, MacGillivray J B. Jejunal morphology in multiple sclerosis. *Lancet* 1979;1(8126):1108-1110. Not sensitivity or specificity of an identified test

Batt R M, Carter M W, McLean L. Morphological and biochemical studies of a naturally occurring enteropathy in the Irish setter dog: a comparison with coeliac disease in man. *Research in Veterinary Science* 1984;37(3):339-346. Not sensitivity or specificity of an identified test

Battelli M G, Musiani S, Tazzari P L et al. Oxidative stress to human lymphocytes by xanthine oxidoreductase activity. *Free Radical Research* 2001;35(6):665-679. Not sensitivity or specificity of an identified test

Baur X, Rihs H-P, Altmeyer P et al. Systemic sclerosis in German uranium miners under special consideration of autoantibody subsets and HLA class II alleles. *Respiration* 1996;63(6):368-375. Not sensitivity or specificity of an identified test

Bayless T M, Wheby M S, Swanson V L. Tropical sprue in Puerto Rico. *American Journal of Clinical Nutrition* 1968;21(9):1030-1041. Not sensitivity or specificity of an identified test

Bazinet P, Marin G A. Malabsorption in systemic lupus erythematosus. *American Journal of Digestive Diseases* 1971;16(5):460-466. Not sensitivity or specificity of an identified test

Bazzigaluppi E, Lampasona V, Barera G et al. Comparison of tissue transglutaminase-specific antibody assays with established antibody measurements for coeliac disease. *Journal of Autoimmunity* 1999;12(1):51-56. Improper control group

Beard R L, Chandraratna R A, Colon D F et al. Synthesis and structure-activity relationships of stilbene retinoid analogs substituted with heteroaromatic carboxylic acids. *Journal of Medicinal Chemistry* 1995;38(15):2820-2829. Not sensitivity or specificity of an identified test

Beaumont D M, Mian M S. Coeliac disease in old age: 'A catch in the rye'. *Age Ageing* 1998;27(4):535-538. Not sensitivity or specificity of an identified test

Beck I T, Da Costa L R, Beck M. Sugar absorption by small bowel biopsy samples from patients with primary lactase deficiency and with adult celiac disease. *American Journal of Digestive Diseases* 1976;21(11):946-952. Not sensitivity or specificity of an identified test

Beckett C G, Ciclitira P J. Celiac disease. *Curr Opin Gastroenterol* 1997;13(2):107-111. Not sensitivity or specificity of an identified test

Beckett C G, Dell'Olio D, Ellis H J et al. The detection and localization of inducible nitric oxide synthase production in the small intestine of patients with coeliac disease. *European Journal of Gastroenterology & Hepatology* 1998;10(8):641-647. Not sensitivity or specificity of an identified test

Beckett C G, Dell'Olio D, Kontakou M et al. Analysis of

interleukin-4 and interleukin-10 and their association with the lymphocytic infiltrate in the small intestine of patients with coeliac disease. *Gut* 1996;39(96):818-823. Not sensitivity or specificity of an identified test

Beckett C G, Dell'Olio D, Schidrawi R G et al. Gluten-induced nitric oxide and pro-inflammatory cytokine release by cultured coeliac small intestinal biopsies. *European Journal of Gastroenterology & Hepatology* 1999;11(5):529-535. Not sensitivity or specificity of an identified test

Bedrossian C W, Bonsib S, Moran C. Differential diagnosis between mesothelioma and adenocarcinoma: a multimodal approach based on ultrastructure and immunocytochemistry. *Seminars in Diagnostic Pathology* 1992;9(2):124-140. Not sensitivity or specificity of an identified test

Behr W, Barnert J. Adult celiac disease and primary biliary cirrhosis. *American Journal of Gastroenterology* 1986;81(9):796-799. Not sensitivity or specificity of an identified test

Behrendt N, Ronne E, Dano K. A novel, specific pro-urokinase complex on monocyte-like cells, detected by transglutaminase-catalyzed cross-linking. *Febs Letters* 1993;336(3):394-396. Not sensitivity or specificity of an identified test

Belkin A M, Akimov S S, Zaritskaya L S et al. Matrix-dependent proteolysis of surface transglutaminase by membrane-type metalloproteinase regulates cancer cell adhesion and locomotion. *Journal of Biological Chemistry* 2001;276(21):18415-18422. Not sensitivity or specificity of an identified test

Bell J I. The major histocompatibility complex and disease. *Current Opinion in Immunology* 1989;2(1):114-116. Not sensitivity or specificity of an identified test

Bell J, Rassenti L, Smoot S et al. HLA-DQ beta-chain polymorphism linked to myasthenia gravis. *Lancet* 1986;1(8489):1058-1060. Not sensitivity or specificity of an identified test

Bell S, Green P H R, Kagnoff M F. American gastroenterological association medical position statement: Celiac sprue. *Gastroenterology* 2001;120(6):1522-1525. Not sensitivity or specificity of an identified test

Bellanti J A, Zeligs B J, Malka-Rais J et al. Abnormalities of ThSUB1 function in non-IgE food allergy, celiac disease, and ileal lymphonodular hyperplasia: A new relationship?. *Annals of Allergy, Asthma & Immunology - Official Publication of the American College of Allergy, Asthma, & Immunology* 2003;90(Suppl):84-89. Not sensitivity or specificity of an identified test

Belloni Cesare, Avanzini Maria A, De Silvestri et al. No evidence of autoimmunity in 6-year-old children immunized at birth with recombinant hepatitis B vaccine. *Pediatrics* 2002;110(1 Pt 1):E4 Not sensitivity or specificity

of an identified test

Beltrami C A, Barbatelli G, Criante P et al. An immunohistochemical study in thyroid cancer. *Applied Pathology* 1987;5(4):229-245. Not sensitivity or specificity of an identified test

Bender S W, Posselt H G, Staps M et al. Biochemical quantification of crypt hyperplastic villous atrophy by aldolase activity assay. *Journal of Pediatric Gastroenterology and Nutrition* 1984;3(4):506-509. Not sensitivity or specificity of an identified test

Bendixen E, Harpel P C, Sottrup-Jensen L. Location of the major epsilon-(gamma-glutamyl)lysyl cross-linking site in transglutaminase-modified human plasminogen. *Journal of Biological Chemistry* 1995;270(30):17929-17933. Not sensitivity or specificity of an identified test

Bendl B J, Williams P B. Histopathological changes in the jejunal mucosa in dermatitis herpetiformis. *Canadian Medical Association Journal* 1968;98(12):575-577. Not sensitivity or specificity of an identified test

Beninati S, Senger D R, Cordella-Miele E et al. Osteopontin: Its transglutaminase-catalyzed posttranslational modifications and cross-linking to fibronectin. *J Biochem* 1994;115(4):675-682. Not sensitivity or specificity of an identified test

Bennett R A, Whitelock T, Kelley J L. Eosinophilic gastroenteritis, gluten enteropathy, and dermatitis herpetiformis. *American Journal of Digestive Diseases* 1974;19(12):1154-1161. Not sensitivity or specificity of an identified test

Benzinger T L, Gregory D M, Burkoth T S et al. Propagating structure of Alzheimer's beta-amyloid(10-35) is parallel beta-sheet with residues in exact register. *Proceedings of the National Academy of Sciences of the United States of America* 1998;95(23):13407-13412. Not sensitivity or specificity of an identified test

Berdoz J, Tiercy J-M, Rollini P et al. Remarkable sequence conservation of the HLA-DQB2 locus (DXbeta) within the highly polymorphic DQ subregion of the human MHC. *Immunogenetics* 1989;29(4):241-248. Not sensitivity or specificity of an identified test

Berg A, Eriksson M, Barany F. Hydrogen concentration in expired air analyzed with a new hydrogen sensor, plasma glucose rise, and symptoms of lactose intolerance after oral administration of 100 gram lactose. *Scandinavian Journal of Gastroenterology* 1985;20(7):814-822. Not sensitivity or specificity of an identified test

Berg L, Ronnelid J, Sanjeevi C B et al. Interferon-gamma production in response to in vitro stimulation with collagen type II in rheumatoid arthritis is associated with HLA-DRB1\*0401 and HLA-DQ8. *Arthritis Res* 2000;2(1):75-84. Not sensitivity or specificity of an identified test

Berg N O, Lindberg T. Incidence of coeliac disease and transient gluten intolerance in children in a Swedish urban community. *Acta Paediatr Scand* 1979;68(3):397-400. Not sensitivity or specificity of an identified test

Berg N O, Dahlqvist A, Lindberg T et al. Correlation between morphological alterations and enzyme activities in the mucosa of the small intestine. *Scandinavian Journal of Gastroenterology* 1973;8(8):703-712. Not sensitivity or specificity of an identified test

Bergamini A, Capozzi M, Piacentini M. Macrophage-colony stimulating factor (M-CSF) stimulation induces cell death in HIV-infected human monocytes. *Immunology Letters* 1994;42(1-2):35-40. Not sensitivity or specificity of an identified test

Bergamini C M, Signorini M. Studies on tissue transglutaminases: interaction of erythrocyte type-2 transglutaminase with GTP. *Biochemical Journal* 1993;291(Pt 1):37-39. Not sensitivity or specificity of an identified test

Bergamini C M, Signorini M, Barbato R et al. Transglutaminase-catalyzed polymerization of troponin in vitro. *Biochemical and Biophysical Research Communications* 1995;206(1):201-206. Not sensitivity or specificity of an identified test

Bernard B A, Asselineau D, Schaffar-Deshayes L et al. Abnormal sequence of expression of differentiation markers in psoriatic epidermis: inversion of two steps in the differentiation program?. *Journal of Investigative Dermatology* 1988;90(6):801-805. Not sensitivity or specificity of an identified test

Bernard B A, Reano A, Darmon Y M et al. Precocious appearance of involucrin and epidermal transglutaminase during differentiation of psoriatic skin. *British Journal of Dermatology* 1986;114(3):279-283. Not sensitivity or specificity of an identified test

Bernardini S, Melino G, Cortese C et al. Modulation of glutathione transferase P1-1 activity by retinoic acid in neuroblastoma cells. *Journal of Cellular Biochemistry* 1999;75(3):375-381. Not sensitivity or specificity of an identified test

Bernassola F, Rossi A, Melino G. Regulation of transglutaminases by nitric oxide. *Annals of the New York Academy of Sciences* 1999;887:83-91. Not sensitivity or specificity of an identified test

Bernassola F, Scheuerpflug C, Herr I et al. Induction of apoptosis by IFN-gamma in human neuroblastoma cell lines through the CD95/CD95L autocrine circuit. *Cell Death and Differentiation* 1999;6(7):652-660. Not sensitivity or specificity of an identified test

Bernstein Charles N, Leslie William D, Leboff Meryl S. AGA technical review on osteoporosis in gastrointestinal diseases. *Gastroenterology* 2003;124(3):795-841. Not

sensitivity or specificity of an identified test

Berrill W T, van Rood J J. HLA-DW6 and avian hypersensitivity. *Lancet* 1977;2(8031):248-249. Not sensitivity or specificity of an identified test

Berrill W T, Eade O E, Fitzpatrick P F. Bird Fancier's lung and jejunal villous atrophy. *Lancet* 1975;2(7943):1006-1008. Not sensitivity or specificity of an identified test

Berrutti L, Silverman J S. Cardiac myxoma is rich in factor XIIIa positive dendrophages: immunohistochemical study of four cases. *Histopathology* 1996;28(6):529-535. Not sensitivity or specificity of an identified test

Berstad A E, Brandtzaeg P. Expression of cell membrane complement regulatory glycoproteins along the normal and diseased human gastrointestinal tract. *Gut* 1998;42(4):522-529. Not sensitivity or specificity of an identified test

Bertele R M, Burgin-Wolff A, Berger R et al. The fluorescent immunosorbent test for IgG gliadin antibodies and the leucocyte migration inhibition test in coeliac disease; comparison of diagnostic value. *European Journal of Pediatrics* 1985;144(1):58-62. Not sensitivity or specificity of an identified test

Berthon P, Pancino G, de Cremoux P et al. Characterization of normal breast epithelial cells in primary cultures: differentiation and growth factor receptors studies. *In Vitro Cellular & Developmental Biology - Journal of the Tissue Culture Association* 1992;28a(11-12):716-724. Not sensitivity or specificity of an identified test

Berti I, Trevisiol C, Tommasini A et al. Usefulness of screening program for celiac disease in autoimmune thyroiditis. *Digestive Diseases and Sciences* 2000;45(2):403-406. Not sensitivity or specificity of an identified test

Berzina L, Ludvigsson J, Sadauskaite-Kuehne V et al. DR3 is associated with type 1 diabetes and blood group ABO incompatibility. *Annals of the New York Academy of Sciences* 2002;958345-348. Not sensitivity or specificity of an identified test

Berzina L, Shtauvere-Brameus A, Ludvigsson J et al. Newborn screening for high-risk human leukocyte antigen markers associated with insulin-dependent diabetes mellitus: the ABIS study. *Annals of the New York Academy of Sciences* 2002;958312-316. Not sensitivity or specificity of an identified test

Besterman H S, Cook G C, Sarson D L. Gut hormones in tropical malabsorption. *Br Med J* 1979;2(6200):1252-1255. Not sensitivity or specificity of an identified test

Bettinotti M P, Hartung K, Deicher H et al. Polymorphism of the tumor necrosis factor beta gene in systemic lupus erythematosus: TNFB-MHC haplotypes. *Immunogenetics* 1993;37(6):449-454. Not sensitivity or specificity of an identified test

Beutel H, Gebuhrer L, Descos L et al. Adult celiac disease associated with HLA-DRw3 and -DRw7. *Tissue Antigens* 1980;15(3):231-238. Not sensitivity or specificity of an identified test

Beutner E H, Chorzelski T P, Kumar V et al. Sensitivity and specificity of IgA-class antiendomysial antibodies for dermatitis herpetiformis and findings relevant to their pathogenic significance. *Journal of the American Academy of Dermatology* 1986;15(3):464-473. Not sensitivity or specificity of an identified test

Beutner E H, Kumar V, Chorzelski T P et al. IgG endomysial antibodies in IgA-deficient patient with coeliac disease. *Lancet* 1989;1(8649):1261-1262. Not sensitivity or specificity of an identified test

Bevan S, Popat S, Houlston R S. Relative power of linkage and transmission disequilibrium test strategies to detect non-HLA linked coeliac disease susceptibility genes. *Gut* 1999;45(5):668-671. Not sensitivity or specificity of an identified test

Bevan S, Popat S, Braegger C P et al. Contribution of the MHC region to the familial risk of coeliac disease. *Journal of Medical Genetics* 1999;36(9):687-690. Not sensitivity or specificity of an identified test

Bhatnagar S, Bhan M K. Serological diagnosis of celiac disease. *Indian Journal of Pediatrics* 1999;66(1 Suppl):S26-S31. Review article

Biagi F, Corazza G R. Tissue transglutaminase antibodies: is sensitivity more important than specificity?. *Digestive and Liver Disease - Official Journal of the Italian Society of Gastroenterology and the Italian Association for the Study of the Liver* 2001;33(5):401-402. Review article

Biagi F, Corazza G R. Contribution of molecular genetics to gastroenterology: the case of coeliac disease. *Italian Journal of Gastroenterology and Hepatology* 1999;31(3):202-204. Not sensitivity or specificity of an identified test

Biagi F, Corazza G R. Gene and gliadin/gut and kidney. *American Journal of Gastroenterology* 2002;97(10):2486-2488. Not sensitivity or specificity of an identified test

Biagi F, Corazza G R. Clinical features of coeliac disease. *Digestive and Liver Disease - Official Journal of the Italian Society of Gastroenterology and the Italian Association for the Study of the Liver* 2002;34(3):225-228. Not sensitivity or specificity of an identified test

Biagi F, Corazza G R. Defining gluten refractory enteropathy. *European Journal of Gastroenterology & Hepatology* 2001;13(5):561-565. Not sensitivity or specificity of an identified test

Biagi F, Bassi E, Ardigo M et al. In patients with dermatitis herpetiformis distribution of transglutaminase in cutaneous

tissue does not differ from controls. Digestive and Liver Disease - Official Journal of the Italian Society of Gastroenterology and the Italian Association for the Study of the Liver 2003;35(1):41-45. Not sensitivity or specificity of an identified test

Biagi F, Ellis H J, Parnell N D et al. A non-toxic analogue of a coeliac-activating gliadin peptide: a basis for immunomodulation?. Alimentary Pharmacology & Therapeutics 1999;13(7):945-950. Not sensitivity or specificity of an identified test

Biagi F, Ellis H J, Yiannakou J Y et al. Tissue transglutaminase antibodies in celiac disease. American Journal of Gastroenterology 1999;94(8):2187-2192. Improper control group

Biagi F, Lorenzini P, Corazza G R. Literature review on the clinical relationship between ulcerative jejunoileitis, coeliac disease, and enteropathy-associated T-cell lymphoma. Scandinavian Journal of Gastroenterology 2000;35(8):785-790. Not sensitivity or specificity of an identified test

Biagi F, Parnell N D, Ellis H J et al. Endomysial antibody production is not related to histological damage after in vitro gluten challenge. European Journal of Gastroenterology & Hepatology 2000;12(1):57-60. Not sensitivity or specificity of an identified test

Biagi F, Parnell N D, Thomas P D et al. A new model for the pathogenesis of celiac disease. Gastroenterology 1999;116(5):1277-1278. Not sensitivity or specificity of an identified test

Biagi F, Zimmer K P, Thomas P D et al. Is gliadin misrepresented to the immune system in coeliac disease? A hypothesis. Qjm - Monthly Journal of the Association of Physicians 1999;92(2):119-122. Not sensitivity or specificity of an identified test

Bianchi L, Farrace M G, Nini G et al. Abnormal Bcl-2 and "tissue" transglutaminase expression in psoriatic skin. Journal of Investigative Dermatology 1994;103(6):829-833. Not sensitivity or specificity of an identified test

Bieda K, Pani M A, van der et al. A retroviral long terminal repeat adjacent to the HLA DQB1 gene (DQ-LTR13) modifies Type I diabetes susceptibility on high risk DQ haplotypes. Diabetologia 2002;45(3):443-447. Not sensitivity or specificity of an identified test

Biempica L, Toccalino H, O'Donnell J C. Cytochemical and ultrastructural studies of the intestinal mucosa of children with celiac disease. American Journal of Pathology 1968;52(4):795-823. Unable to extract data

Bilbao J R, Martin-Pagola A, Calvo B et al. Contribution of MIC-A polymorphism to type 1 diabetes mellitus in Basques. Ann New York Acad Sci 2002;958(-):321-324. Not sensitivity or specificity of an identified test

Bilbao J R, Martin-Pagola A, Vitoria J C et al. HLA-DRB1

and MHC class 1 chain-related A haplotypes in Basque families with celiac disease. Tissue Antigens 2002;60(1):71-76. Not sensitivity or specificity of an identified test

Bilbao J, Ramon Vitoria, Juan C et al. Immunoglobulin G autoantibodies against tissue-transglutaminase. A sensitive, cost-effective assay for the screening of celiac disease. Autoimmunity 2002;35(4):255-259. Improper control group

Binder G, Ranke M B, Martin D D. Auxology Is a Valuable Instrument for the Clinical Diagnosis of SHOX Haploinsufficiency in School-Age Children with Unexplained Short Stature. J Clin Endocrinol Metab 2003;88(10):4891-4896. Not sensitivity or specificity of an identified test

Binder H J. Celiac sprue--"unmasking" after vagotomy and hiatal-hernia repair. New England Journal of Medicine 1970;283(10):520-521. Not sensitivity or specificity of an identified test

Bini E J. Helicobacter pylori and iron deficiency anemia: Guilty as charged?. Am J Med 2001;111(6):495-497. Not sensitivity or specificity of an identified test

Birckbichler P J, Patterson M K. Transglutaminase and epsilon-(gamma-glutamyl) lysine isopeptide bonds in eukaryotic cells. Progress in Clinical and Biological Research 1980;41845-855. Not sensitivity or specificity of an identified test

Birckbichler P J, Bonner R B, Hurst R E et al. Loss of tissue transglutaminase as a biomarker for prostate adenocarcinoma. Cancer 2000;89(2):412-423. Not sensitivity or specificity of an identified test

Birckbichler P J, Orr G R, Patterson M K et al. Enhanced transglutaminase activity in transformed human lung fibroblast cells after exposure to sodium butyrate. Biochimica Et Biophysica Acta 1983;763(1):27-34. Not sensitivity or specificity of an identified test

Birckbichler P J, Upchurch H F, Patterson M K et al. Detection of cellular transglutaminase using monoclonal antibody. Fed Proc 1984;43(6):No 2082 Not sensitivity or specificity of an identified test

Birckbichler P J, Upchurch H F, Patterson M K et al. A monoclonal antibody to cellular transglutaminase. Hybridoma 1985;4(2):179-186. Not sensitivity or specificity of an identified test

Birinci A, Birinci H, Abidinoglu R et al. Diabetic retinopathy and HLA antigens in type 2 diabetes mellitus. Eur J Ophthalmol 2002;12(2):89-93. Not sensitivity or specificity of an identified test

Biroel Ahu, Anadolu Rana, Yavuzer Tutkak et al. HLA-class 1 and class 2 antigens in Turkish patients with pemphigus. International Journal of Dermatology

2002;41(2):79-83. Not sensitivity or specificity of an identified test

Bischoff S C, Mayer J, Wedemeyer J et al. Colonoscopic allergen provocation (COLAP): a new diagnostic approach for gastrointestinal food allergy. *Gut* 1997;40(6):745-753. Not sensitivity or specificity of an identified test

Bishara A, Brautbar C, Nagler A. HLA and graft-versus-host disease: A population-based study of HLA phenotypes of Jewish and Arabic bone marrow transplanted patients in Israel. *Leuk Res* 1997;21(2):111-118. Not sensitivity or specificity of an identified test

Bittinger M, Barnert J, Schmidbauer W et al. D-xylose hydrogen-breath test as a noninvasive screening test for Coeliac disease. What is the optimum xylose dose?. *Rom J Gastroenterol* 1997;6(4):235-238. Not sensitivity or specificity of an identified test

Bittolo M, Not T, Perticarari S et al. A dot immunobinding assay to detect anti-alpha-gliadin antibodies in celiac disease. *Journal of Pediatric Gastroenterology and Nutrition* 1990;11(3):337-341. Not sensitivity or specificity of an identified test

Bizzaro N, Villalta D, Tonutti E et al. Association of celiac disease with connective tissue diseases and autoimmune diseases of the digestive tract. *Autoimmun Rev* 2003;2(6):358-363. Not sensitivity or specificity of an identified test

Bjarnason I, Batt R, Catt S et al. Evaluation of differential disaccharide excretion in urine for non-invasive investigation of altered intestinal disaccharidase activity caused by alpha-glucosidase inhibition, primary hypolactasia, and coeliac disease. *Gut* 1996;39(3):374-381. Not sensitivity or specificity of an identified test

Bjarnason I, Goolamali S K, Levi A J et al. Intestinal permeability in patients with atopic eczema. *British Journal of Dermatology* 1985;112(3):291-297. Not sensitivity or specificity of an identified test

Bjarnason I, Marsh M N, Price A et al. Intestinal permeability in patients with coeliac disease and dermatitis herpetiformis. *Gut* 1985;26(11):1214-1219. Not sensitivity or specificity of an identified test

Bjarnason I, Peters T J, Veall N. A persistent defect in intestinal permeability in coeliac disease demonstrated by a <sup>51</sup>Cr-labelled EDTA absorption test. *Lancet* 1983;1(8320):323-325. Not sensitivity or specificity of an identified test

Bjerrum O J, Heegaard N H H. Has immunoblotting replaced electroimmunoprecipitation? Examples from the analysis of autoantigens and transglutaminase-induced polymers of the human erythrocyte membrane. *J Chromatogr* 1989;470(2):351-367. Not sensitivity or specificity of an identified test

Bjorksten F, Backman A, Jarvinen K A et al. Immunoglobulin E specific to wheat and rye flour proteins. *Clinical Allergy* 1977;7(5):473-483. Not sensitivity or specificity of an identified test

Bjorneklett A, Fausa O, Refsum S B. Jejunal villous atrophy and granulomatous inflammation responding to a gluten free diet. *Gut* 1977;18(10):814-816. Not sensitivity or specificity of an identified test

Black Kay E, Murray Joseph A, David Chella S. HLA-DQ determines the response to exogenous wheat proteins: a model of gluten sensitivity in transgenic knockout mice. *Journal of Immunology (Baltimore, Md. - 1950)* 2002;169(10):5595-5600. Not sensitivity or specificity of an identified test

Blackwell P J, Hill P G, Holmes G K T. Autoantibodies to human tissue transglutaminase: superior predictors of coeliac disease. *Scandinavian Journal of Gastroenterology* 2002;37(11):1282-1285. Improper control group

Blanco A, Alonso M, Cilleruelo M L et al. Increased serum beta2-microglobulin levels in active celiac disease. *Journal of Pediatric Gastroenterology and Nutrition* 1985;4(3):388-392. Not sensitivity or specificity of an identified test

Blanco A, Arranz E, Alonso M et al. IgA1, IgA2 or secretory piece containing antigliadin antibodies in the sera of coeliac patients. *Allergologia Et Immunopathologia* 1989;17(2):77-80. Not sensitivity or specificity of an identified test

Blanco A, Garrote J A, Alonso M et al. Soluble CD4 antigen is increased in active coeliac disease. *Advances in Experimental Medicine and Biology* 1995;371b:1355-1358. Not sensitivity or specificity of an identified test

Blanco A, Garrote J A, Arranz E et al. Increased serum IL-2R levels in coeliac disease are related to CD4 but not CD8 antigens. *Journal of Pediatric Gastroenterology and Nutrition* 1992;15(4):413-417. Not sensitivity or specificity of an identified test

Blazer S, Naveh Y, Berant M et al. Serum IgG antibodies to gliadin in children with coeliac disease as measured by an immunofluorescence method. *Journal of Pediatric Gastroenterology and Nutrition* 1984;3(2):205-209. Serology <1990

Bloch R, Menge H, Lingelbach B et al. The relationship between structure and function of small intestine in patients with a sprue syndrome and in healthy controls. *Klinische Wochenschrift* 1973;51(23):1151-1158. Not sensitivity or specificity of an identified test

Blomme B, Gerlo E, Hauser B et al. Disaccharidase activities in Belgian children: Reference intervals and comparison with non-Belgian Caucasian children. *Acta Paediatr Int J Paediatr* 2003;92(7):806-810. Not sensitivity or specificity of an identified test

- Boberg K M, Spurkland A, Rocca G et al. The HLA-DR3,DQ2 heterozygous genotype is associated with an accelerated progression of primary sclerosing cholangitis. *Scandinavian Journal of Gastroenterology* 2001;36(8):886-890. Not sensitivity or specificity of an identified test
- Bock S A. Food sensitivity: a critical review and practical approach. *American Journal of Diseases of Children* (1960) 1980;134(10):973-982. Not sensitivity or specificity of an identified test
- Boda M, Nemeth I, Boda D. The caffeine metabolic ratio as an index of xanthine oxidase activity in clinically active and silent celiac patients. *Journal of Pediatric Gastroenterology and Nutrition* 1999;29(5):546-550. Not sensitivity or specificity of an identified test
- Bodanszky H, Horvath K, Horn G. The D-xylose test in coeliac disease. *Acta Paediatrica Hungarica* 1983;24(1):17-22. Not sensitivity or specificity of an identified test
- Bodanszky H, Horvath K, Bata A et al. Hydrogen breath test in small intestinal malabsorption. *Acta Paediatrica Hungarica* 1987;28(1):45-49. Not sensitivity or specificity of an identified test
- Bode S, Gudmand-Hoyer E. Symptoms and haematologic features in consecutive adult coeliac patients. *Scandinavian Journal of Gastroenterology* 1996;31(1):54-60. Not sensitivity or specificity of an identified test
- Bode S, Gudmand-Hoyer E. Incidence and clinical significance of lactose malabsorption in adult coeliac disease. *Scandinavian Journal of Gastroenterology* 1988;23(4):484-488. Not sensitivity or specificity of an identified test
- Bodmer W F. The HLA system and disease. The Oliver Sharpey Lecture 1979. *Journal of the Royal College of Physicians of London* 1980;14(1):43-50. Not sensitivity or specificity of an identified test
- Boehm Jason E, Singh Ugra, Combs Carolyn et al. Tissue transglutaminase protects against apoptosis by modifying the tumor suppressor protein p110 Rb. *Journal of Biological Chemistry* 2002;277(23):20127-20130. Not sensitivity or specificity of an identified test
- Boersma E R. Serum immunoglobulins IgG, IgM, and IgA in maternal cord blood pairs from infants of normal and low birthweights in Tanzania. *Archives of Disease in Childhood* 1981;56(1):31-35. Not sensitivity or specificity of an identified test
- Bognetti E, Riva M C, Bonfanti R et al. Growth changes in children and adolescents with short-term diabetes. *Diabetes Care* 1998;21(8):1226-1229. Not sensitivity or specificity of an identified test
- Bolme P, Eriksson M, Stintzing G. The gastrointestinal absorption of penicillin V in children with suspected coeliac disease. *Acta Paediatrica Scandinavica* 1977;66(5):573-578. Not sensitivity or specificity of an identified test
- Bolognesi E, Karell K, Percopo S et al. Additional factor in some HLA DR3/DQ2 haplotypes confers a fourfold increased genetic risk of celiac disease. *Tissue Antigens* 2003;61(4):308-316. Not sensitivity or specificity of an identified test
- Bolsover W J, Hall M A, Vaughan R W et al. A family study confirms that the HLA-DP associations with celiac disease are the result of an extended HLA-DR3 haplotype. *Human Immunology* 1991;31(2):100-108. Not sensitivity or specificity of an identified test
- Bonamico M, Ballati G, Mariani P et al. Screening for coeliac disease: the meaning of low titers of anti-gliadin antibodies (AGA) in non-coeliac children. *European Journal of Epidemiology* 1997;13(1):55-59. Not sensitivity or specificity of an identified test
- Bonamico M, Bottaro G, Pasquino A M et al. Celiac disease and turner syndrome. *Journal of Pediatric Gastroenterology and Nutrition* 1998;26(5):496-499. Not sensitivity or specificity of an identified test
- Bonamico M, Culasso F, Pitzalis G et al. Beta 2-microglobulin levels in celiac disease. *Journal of Pediatric Gastroenterology and Nutrition* 1990;11(3):330-336. Not sensitivity or specificity of an identified test
- Bonamico M, Mariani P, Danesi H M et al. Prevalence and clinical picture of celiac disease in italian down syndrome patients: a multicenter study. *Journal of Pediatric Gastroenterology and Nutrition* 2001;33(2):139-143. Not sensitivity or specificity of an identified test
- Bonamico M, Mariani P, Mazzilli M C et al. Frequency and clinical pattern of celiac disease among siblings of celiac children. *Journal of Pediatric Gastroenterology and Nutrition* 1996;23(2):159-163. Not sensitivity or specificity of an identified test
- Bonamico M, Mazzilli M C, Morellini M et al. Expression of class II MHC antigens in the intestinal epithelium of pediatric celiac disease. *Journal of Pediatric Gastroenterology and Nutrition* 1989;9(3):269-275. Not sensitivity or specificity of an identified test
- Bonamico M, Morellini M, Mariani P et al. HLA antigens and antigliadin antibodies in coeliac disease. *Disease Markers* 1991;9(6):313-317. Improper control group
- Bonamico M, Rasore-Quartino A, Mariani P et al. Down syndrome and coeliac disease: Usefulness of antigliadin and antiendomysium antibodies. *Acta Paediatr Int J Paediatr* 1996;85(12):1503-1505. Not sensitivity or specificity of an identified test
- Bonamico M, Scire G, Mariani P et al. Short stature as the primary manifestation of monosymptomatic celiac disease. *Journal of Pediatric Gastroenterology and Nutrition*

- 1992;14(1):12-16. Not sensitivity or specificity of an identified test
- Bonamico Margherita, Pasquino Anna M, Mariani Paolo et al. Prevalence and clinical picture of celiac disease in Turner syndrome. *Journal of Clinical Endocrinology and Metabolism* 2002;87(12):5495-5498. Not sensitivity or specificity of an identified test
- Bonelli Raphael M, Aschoff Andreas, Jirikowski Gustaf. Cerebrospinal fluid tissue transglutaminase in vascular dementia. *Journal of the Neurological Sciences* 2002;203-204207-209. Not sensitivity or specificity of an identified test
- Bonelli Raphael M, Aschoff Andreas, Niederwieser Gerald et al. Cerebrospinal fluid tissue transglutaminase as a biochemical marker for Alzheimer's disease. *Neurobiology of Disease* 2002;11(1):106-110. Not sensitivity or specificity of an identified test
- Bonini S, Ruffilli A. Genetics of food allergy. *Environ Toxicol Pharmacol* 1997;4(1-2):71-78. Not sensitivity or specificity of an identified test
- Boniotto M, Braida L, Ventura A et al. Promoter polymorphisms of the CD14 gene in Italian patients with coeliac disease. *Journal of Medical Genetics* 2003;40(9):E108 Not sensitivity or specificity of an identified test
- Boniotto Michele, Braida Laura, Spano Andrea et al. Variant mannose-binding lectin alleles are associated with coeliac disease. *Immunogenetics* 2002;54(8):596-598. Not sensitivity or specificity of an identified test
- Bontems P, Deprettere A, Cadranel S et al. The coeliac iceberg: A consensus in paediatrics. *Acta Gastro-Enterol Belg* 2000;63(2):157-162. Not sensitivity or specificity of an identified test
- Bonvicini F, Zoli G, Maltarello M C et al. Clinical applications of scanning electron microscopy in gastrointestinal diseases. *Scanning Electron Microscopy* 1985;(Pt 3):1279-1294. Not sensitivity or specificity of an identified test
- Book L, Hart A, Black J et al. Prevalence and clinical characteristics of celiac disease in Down syndrome in a US study. *American Journal of Medical Genetics* 2001;98(1):70-74. Improper control group
- Book Linda S. Diagnosing celiac disease in 2002: who, why, and how?. *Pediatrics* 2002;109(5):952-954. Not sensitivity or specificity of an identified test
- Book Linda, Zone John J, Neuhausen Susan L. Prevalence of celiac disease among relatives of sib pairs with celiac disease in U.S. families. *American Journal of Gastroenterology* 2003;98(2):377-381. Not sensitivity or specificity of an identified test
- Booth I W. The nutritional consequences of gastrointestinal disease in adolescence. *Acta Paediatr Scand Suppl* 1991;80(373):91-102. Not sensitivity or specificity of an identified test
- Borch K, Grodzinsky E, Petersson F et al. Prevalence of coeliac disease and relations to *Helicobacter pylori* infection and duodenitis in a Swedish adult population sample: A histomorphological and serological survey. *Inflammopharmacology* 2000;8(4):341-350. Not sensitivity or specificity of an identified test
- Borg M, Phillips A D, Smith M W et al. Enteric disease in early childhood inhibits microvillus expression by potential stem cells. *Clinical Science (London, England - 1979)* 1993;84(4):377-379. Not sensitivity or specificity of an identified test
- Borner H, Osman A A, Meergans T et al. Isolation of antigens recognized by coeliac disease autoantibodies and their use in enzyme immunoassay of endomysium and reticulon antibody-positive human sera. *Clinical and Experimental Immunology* 1996;106(2):344-350. Not sensitivity or specificity of an identified test
- Borth W, Chang V, Bishop P et al. Lipoprotein (a) is a substrate for factor XIIIa and tissue transglutaminase. *J Biol Chem* 1991;266(27):18149-18153. Not sensitivity or specificity of an identified test
- Bossart R, Henry K, Booth C C et al. Subepithelial collagen in intestinal malabsorption. *Gut* 1975;16(1):18-22. Not sensitivity or specificity of an identified test
- Bossart R, Henry K, Doe W F et al. Proceedings: Collagenous basement membrane thickening in jejunal biopsies from patients with adult coeliac disease. *Gut* 1974;15(4):338 Not sensitivity or specificity of an identified test
- Bottaro G, Failla P, Rotolo N et al. Changes in coeliac disease behaviour over the years. *Acta Paediatrica (Oslo, Norway - 1992)* 1993;82(6-7):566-568. Not sensitivity or specificity of an identified test
- Boudraa G, Hachelaf W, Benbouabdellah M et al. Prevalence of coeliac disease in diabetic children and their first-degree relatives in west Algeria: screening with serological markers. *Acta Paediatrica (Oslo, Norway - 1992).Supplement* 1996;41258-60. Improper control group
- Bouguerra F, Babron M C, Eliaou J F et al. Synergistic effect of two HLA heterodimers in the susceptibility to celiac disease in Tunisia. *Genetic Epidemiology* 1997;14(4):413-422. Improper control group
- Bouguerra F, Dugoujon J M, Babron M C et al. Susceptibility to coeliac disease in Tunisian children and GM immunoglobulin allotypes. *European Journal of Immunogenetics - Official Journal of the British Society for Histocompatibility and Immunogenetics* 1999;26(4):293-297. Not sensitivity or specificity of an identified test

Bouissou F, Meissner I, Konrad M et al. Clinical implications from studies of HLA antigens in idiopathic nephrotic syndrome in children. *Clin Nephrol* 1995;44(5):279-283. Not sensitivity or specificity of an identified test

Bourgain C, Genin E, Holopainen P et al. Use of closely related affected individuals for the genetic study of complex diseases in founder populations. *American Journal of Human Genetics* 2001;68(1):154-159. Not sensitivity or specificity of an identified test

Bourke M, O'Donovan M, Stevens F M et al. Alpha 1-antitrypsin phenotypes in coeliac patients and a control population in the west of Ireland. *Irish Journal of Medical Science* 1993;162(5):171-172. Not sensitivity or specificity of an identified test

Bourne J T, Kumar P, Huskisson E C. Arthritis and coeliac disease. *Ann Rheum Dis* 1985;44(9):592-598. Not sensitivity or specificity of an identified test

Bowness J M, Tarr A H. Lipoprotein binding of crosslinked type III collagen aminopeptide and fractions of its antigen in blood. *Biochemical and Biophysical Research Communications* 1990;170(2):519-525. Not sensitivity or specificity of an identified test

Bowness J M, Tarr A H, Wiebe R I. Transglutaminase-catalysed cross-linking: a potential mechanism for the interaction of fibrinogen, low density lipoprotein and arterial type III procollagen. *Thromb Res* 1989;54(4):357-367. Not sensitivity or specificity of an identified test

Bowron A, Moorghen M, Morgan J E et al. Cost-effective strategy for the serological investigation of coeliac disease. *Ann Clin Biochem* 2000;37(4):467-470. Improper control group

Boy M F, La Nasa G, Balestrieri A et al. Distribution of HLA-DPB1, -DQB1 -DQA1 alleles among Sardinian celiac patients. *Disease Markers* 1995;12(3):199-204. Improper control group

Boyce S, Michel S, Reichert U et al. Reconstructed skin from cultured human keratinocytes and fibroblasts on a collagen-glycosaminoglycan biopolymer substrate. *Skin Pharmacology - the Official Journal of the Skin Pharmacology Society* 1990;3(2):136-143. Not sensitivity or specificity of an identified test

Boyd S, Collins B J, Bell P M et al. Clinical presentation of coeliac disease in adult gastroenterological practice. *Ulster Medical Journal* 1985;54(2):140-147. Not sensitivity or specificity of an identified test

Boyton R J, Lohmann T, Londei M et al. Glutamic acid decarboxylase T lymphocyte responses associated with susceptibility or resistance to type I diabetes: Analysis in disease discordant human twins, non-obese diabetic mice and HLA-DQ transgenic mice. *Int Immunol*

1998;10(12):1765-1776. Not sensitivity or specificity of an identified test

Brack M, Schroeder C, Fooke M et al. IgM/IgA nephropathy in callitrichids: Antigen studies. *Nephron* 1999;82(3):221-231. Not sensitivity or specificity of an identified test

Brackin M N, Lewis R E, Brackin B T et al. Progression of HIV infection is associated with HLA-DQ antigens in Caucasians and African Americans. *Pathobiology* 1995;63(1):22-41. Not sensitivity or specificity of an identified test

Bradgate M G, Redman C W, Rollason T P et al. Binding of anti-EMA, AGF 4:48 and the lectin UEA-1 to human ovarian carcinomas: histological and clinical correlations. *British Journal of Obstetrics and Gynaecology* 1989;96(7):854-860. Not sensitivity or specificity of an identified test

Bradway S D, Bergey E J, Scannapieco F A et al. Formation of salivary-mucosal pellicle: The role of transglutaminase. *Biochem J* 1992;284(2):557-564. Not sensitivity or specificity of an identified test

Braegger C P, MacDonald T T. The immunologic basis for celiac disease and related disorders. *Seminars in Gastrointestinal Disease* 1996;7(3):124-133. Not sensitivity or specificity of an identified test

Bramble M G, Watson A J, Scott J et al. Clinical, biochemical and morphological responses of patients with villous atrophy to oral betamethasone valerate and clobetasone butyrate. *Digestion* 1981;22(6):281-288. Not sensitivity or specificity of an identified test

Bramble M G, Zucoloto S, Wright N A et al. Acute gluten challenge in treated adult coeliac disease: a morphometric and enzymatic study. *Gut* 1985;26(2):169-174. Not sensitivity or specificity of an identified test

Brandborg L L. Histologic diagnosis of diseases of malabsorption. *American Journal of Medicine* 1979;67(6):999-1006. Not sensitivity or specificity of an identified test

Brandborg L L, Goldberg S B, Breidenbach W C. Human coccidiosis--a possible cause of malabsorption. *New England Journal of Medicine* 1970;283(24):1306-1313. Not sensitivity or specificity of an identified test

Brandt L J, Locke G R, Olden K et al. An evidence-based approach to the management of irritable bowel syndrome in North America. *American Journal of Gastroenterology* 2002;97(11 SUPPL.):S1-S26. Not sensitivity or specificity of an identified test

Brandtzaeg P. Immunologic basis for celiac disease, inflammatory bowel disease, and type B chronic gastritis. *Curr Opin Gastroenterol* 1991;7(3):450-462. Not sensitivity or specificity of an identified test

Brandtzaeg P, Valnes K, Scott H et al. The human gastrointestinal secretory immune system in health and disease. *Scandinavian Journal of Gastroenterology*. Supplement 1985;11417-38. Not sensitivity or specificity of an identified test

Branski D, Troncone R. Celiac disease: A reappraisal. *Journal of Pediatrics* 1998;133(2):181-187. Not sensitivity or specificity of an identified test

Branski D, Faber J, Shiner M. A comparison of small-intestinal mucosal biopsies in children obtained by blind suction capsule with those obtained by endoscopy. *Journal of Pediatric Gastroenterology and Nutrition* 1996;22(2):194-196. Not sensitivity or specificity of an identified test

Branski D, Faber J, Freier S et al. Histologic evaluation of endoscopic versus suction biopsies of small intestinal mucosae in children with and without celiac disease. *Journal of Pediatric Gastroenterology and Nutrition* 1998;27(1):6-11. Not sensitivity or specificity of an identified test

Brautbar C, Freier S, Ashkenazi A et al. Histocompatibility determinants in Israeli Jewish patients with coeliac disease: population and family study. *Tissue Antigens* 1981;17(3):313-322. Not sensitivity or specificity of an identified test

Brautbar C, Zlotogora J, Laufer N et al. Do identical HLA-DR3 genes convey susceptibility to celiac disease and insulin dependent diabetes mellitus?. *Tissue Antigens* 1984;23(1):58-60. Not sensitivity or specificity of an identified test

Breen E G, Coughlan G, Connolly C E et al. Coeliac proctitis. *Scandinavian Journal of Gastroenterology* 1987;22(4):471-477. Not sensitivity or specificity of an identified test

Brett P M, Yiannakou J Y, Morris M A et al. A pedigree-based linkage study of coeliac disease: failure to replicate previous positive findings. *Annals of Human Genetics* 1998;62(Pt 1):25-32. Not sensitivity or specificity of an identified test

Brett P M, Yiannakou J Y, Morris M A et al. Common HLA alleles, rather than rare mutants, confer susceptibility to coeliac disease. *Annals of Human Genetics* 1999;63(Pt 3):217-225. Unable to extract data

Brewster D, Pakorny C S. Investigating the child with malnutrition. *Med Today* 2001;2(7):88-93. Not sensitivity or specificity of an identified test

Brocchi E, Corazza G R, Caletti G et al. Endoscopic demonstration of loss of duodenal folds in the diagnosis of celiac disease. *New Engl J Med* 1988;319(12):741-744. Not sensitivity or specificity of an identified test

Brocchi E, Tomassetti P, Misitano B et al. Endoscopic markers in adult coeliac disease. *Digestive and Liver Disease - Official Journal of the Italian Society of Gastroenterology and the Italian Association for the Study of the Liver* 2002;34(3):177-182. Not sensitivity or specificity of an identified test

Broekaert D, Leigh I M, Lane E B et al. An immunohistochemical and histochemical study of cytokeratin, involucrin and transglutaminase in seborrhoeic keratosis. *Archives of Dermatological Research* 1993;285(8):482-490. Not sensitivity or specificity of an identified test

Broekaert D, Pattin C, Coucke P et al. Keratinization of middle ear cholesteatomas. I. A histochemical study of epidermal transglutaminase. *European Archives of Oto-Rhino-Laryngology - Official Journal of the European Federation of Oto-Rhino-Laryngological Societies (Eufos) - Affiliated With the German Society for Oto-Rhino-Laryngolog* 1990;247(5):312-317. Not sensitivity or specificity of an identified test

Brooks A P, Harrington C I. Acquired ichthyosis and toxic epidermal necrolysis and mesenteric reticulum cell sarcoma and malabsorption. *Br Med J* 1977;2(6089):739-740. Not sensitivity or specificity of an identified test

Brooks F P, Powell K C, Cerda J J. Variable clinical course of adult celiac disease. *Archives of Internal Medicine* 1966;117(6):789-794. Not sensitivity or specificity of an identified test

Brow J R, Parker F, Weinstein W M et al. The small intestinal mucosa in dermatitis herpetiformis. I. Severity and distribution of the small intestinal lesion and associated malabsorption. *Gastroenterology* 1971;60(3):355-361. Not sensitivity or specificity of an identified test

Brown M R, Lillibridge C B. When to think of celiac disease: the classical features of gluten sensitive enteropathy are absent. *Clinical Pediatrics* 1975;14(1):76-82. Not sensitivity or specificity of an identified test

Brucato A, Franceschini F, Gasparini M et al. Isolated congenital complete heart block: Longterm outcome of mothers, maternal antibody specificity and immunogenetic background. *J Rheumatol* 1995;22(3):533-540. Not sensitivity or specificity of an identified test

Bruce G, Woodley J F, Swan C H J. Breakdown of gliadin peptides by intestinal brush borders from coeliac patients. *Gut* 1984;25(9):919-924. Not sensitivity or specificity of an identified test

Bruce S E, Bjarnason I, Peters T J. Human jejunal transglutaminase: demonstration of activity, enzyme kinetics and substrate specificity with special relation to gliadin and coeliac disease. *Clinical Science (London, England - 1979)* 1985;68(5):573-579. Not sensitivity or specificity of an identified test

- Bruges-Armas J, Martinez-Laso J, Martins B et al. HLA in the Azores Archipelago: Possible presence of Mongoloid genes. *Tissue Antigens* 1999;54(4):349-359. Not sensitivity or specificity of an identified test
- Bruno C J, Batts K P, Ahlquist D A. Evidence against flat dysplasia as a regional field defect in small bowel adenocarcinoma associated with celiac sprue. *Mayo Clinic Proceedings* 1997;72(4):320-322. Not sensitivity or specificity of an identified test
- Brusco G, Di Stefano M, Corazza G R. Increased red cell distribution width and coeliac disease. *Digestive and Liver Disease - Official Journal of the Italian Society of Gastroenterology and the Italian Association for the Study of the Liver* 2000;32(2):128-130. Not sensitivity or specificity of an identified test
- Brusco G, Izzi L, Corazza G R. Tissue transglutaminase antibodies for coeliac disease screening. *Italian Journal of Gastroenterology and Hepatology* 1998;30(5):496-497. Improper control group
- Brusco G, Muzi P, Ciccocioppo R et al. Transglutaminase and coeliac disease: endomysial reactivity and small bowel expression. *Clinical and Experimental Immunology* 1999;118(3):371-375. Not sensitivity or specificity of an identified test
- Bryant D A, Mintz E D, Puhr N D et al. Colonic epithelial lymphocytosis associated with an epidemic of chronic diarrhea. *American Journal of Surgical Pathology* 1996;20(9):1102-1109. Not sensitivity or specificity of an identified test
- Brzechwa-Ajdukiewicz A, McCarthy C F, Austad W et al. Carcinoma, villous atrophy, and steatorrhoea. *Gut* 1966;7(6):572-577. Not sensitivity or specificity of an identified test
- Buchan A M, Grant S, Brown J C et al. A quantitative study of enteric endocrine cells in celiac sprue. *Journal of Pediatric Gastroenterology and Nutrition* 1984;3(5):665-671. Not sensitivity or specificity of an identified test
- Bucht A, Soderstrom K, Esin S et al. Analysis of gamma delta V region usage in normal and diseased human intestinal biopsies and peripheral blood by polymerase chain reaction (PCR) and flow cytometry. *Clinical and Experimental Immunology* 1995;99(1):57-64. Not sensitivity or specificity of an identified test
- Buckley D B, English J, Molloy W et al. Dermatitis herpetiformis: a review of 119 cases. *Clinical and Experimental Dermatology* 1983;8(5):477-487. Not sensitivity or specificity of an identified test
- Budzynski A Z. Fibrinogen and fibrin: biochemistry and pathophysiology. *Critical Reviews in Oncology/Hematology* 1986;6(2):97-146. Not sensitivity or specificity of an identified test
- Bugawan T L, Angelini G, Larrick J et al. A combination of a particular HLA-DP beta allele and an HLA-DQ heterodimer confers susceptibility to coeliac disease. *Nature* 1989;339(6224):470-473. Not sensitivity or specificity of an identified test
- Bugawan T L, Horn G T, Long C M et al. Analysis of HLA-DP allelic sequence polymorphism using the in vitro enzymatic DNA amplification of DP-alpha and DP-beta loci. *J Immunol* 1988;141(11):4024-4030. Not sensitivity or specificity of an identified test
- Bullen A W, Hall R, Gowland G et al. Hyposplenism, adult coeliac disease, and autoimmunity. *Gut* 1981;22(1):28-33. Not sensitivity or specificity of an identified test
- Bunce M, Taylor C J, Welsh K I. Rapid HLA-DQB typing by eight polymerase chain reaction amplifications with sequence-specific primers (PCR-SSP). *Human Immunology* 1993;37(4):201-206. Not sensitivity or specificity of an identified test
- Buommino E, Morelli F, Metafora S et al. Porin from *Pseudomonas aeruginosa* induces apoptosis in an epithelial cell line derived from rat seminal vesicles. *Infection and Immunity* 1999;67(9):4794-4800. Not sensitivity or specificity of an identified test
- Burgin-Wolff A, Berger R, Gaze H et al. IgG, IgA and IgE gliadin antibody determinations as screening test for untreated coeliac disease in children, a multicentre study. *European Journal of Pediatrics* 1989;148(6):496-502. Improper control group
- Burgin-Wolff A, Bertele R M, Berger R et al. A reliable screening test for childhood coeliac disease: fluorescent immunosorbent test for gliadin antibodies. A prospective multicenter study. *Journal of Pediatrics* 1983;102(5):655-660. Serology <1990
- Burgin-Wolff A, Dahlbom I, Hadziselimovic F et al. Antibodies against human tissue transglutaminase and endomysium in diagnosing and monitoring coeliac disease. *Scandinavian Journal of Gastroenterology* 2002;37(6):685-691. Improper control group
- Burgin-Wolff A, Gaze H, Hadziselimovic F et al. Antigliadin and antiendomysium antibody determination for coeliac disease. *Archives of Disease in Childhood* 1991;66(8):941-947. Improper control group
- Burgin-Wolff A, Hernandez R, Just M et al. Immunofluorescent antibodies against gliadin: a screening test for coeliac disease. *Helvetica Paediatrica Acta* 1976;31(4-5):375-380. Serology <1990
- Burhol P G, Myren J. Dehydrogenase activity and mucosal measurements in jejunal biopsies from patients with gastrointestinal diseases. *Scandinavian Journal of Gastroenterology* 1966;1(2):142-148. Not sensitivity or specificity of an identified test

- Burk K, Bosch S, Muller C A et al. Sporadic cerebellar ataxia associated with gluten sensitivity. *Brain* 2001;A *Journal of Neurology*; 124(Pt 5):1013-1019. Not sensitivity or specificity of an identified test
- Burke V, Colebatch J H, Anderson C M et al. Association of pancreatic insufficiency and chronic neutropenia in childhood. *Archives of Disease in Childhood* 1967;42(222):147-157. Not sensitivity or specificity of an identified test
- Burnie J. A possible immunological mechanism for the pathogenesis of dermatitis herpetiformis with reference to coeliac disease. *Clinical and Experimental Dermatology* 1980;5(4):451-463. Not sensitivity or specificity of an identified test
- Burrows R, Leiva L, Burgueno M et al. Bone mineral density (BMD) in children with celiac disease (CD): Its relation to puberty and calcium intake. *Nutr Res* 1999;19(4):493-499. Not sensitivity or specificity of an identified test
- Busch H J, Jirikowski G F, Aschoff A P et al. Actin in semithin sections of myocardial biopsies as a tool to visualize myofibrillary degradation in humans. *Cellular and Molecular Biology (Noisy-Le-Grand, France)* 2001;47 Online Pub0189-0194. Not sensitivity or specificity of an identified test
- Bushara K O, Goebel S U, Shill H et al. Gluten sensitivity in sporadic and hereditary cerebellar ataxia. *Annals of Neurology* 2001;49(4):540-543. Not sensitivity or specificity of an identified test
- Buts J P, Morin C L, Roy C C et al. One-hour blood xylose test: a reliable index of small bowel function. *Journal of Pediatrics* 1978;92(5):729-733. Not sensitivity or specificity of an identified test
- Butterworth Jeffrey R, Cooper Brian T, Rosenberg William M C et al. The role of hemochromatosis susceptibility gene mutations in protecting against iron deficiency in celiac disease. *Gastroenterology* 2002;123(2):444-449. Not sensitivity or specificity of an identified test
- Buxman M M. The role of enzymatic coupling of drugs to proteins in induction of drug specific antibodies. *J Invest Dermatol* 1979;73(3):256-258. Not sensitivity or specificity of an identified test
- Buxman M M, Wuepper K D. Keratin cross-linking and epidermal transglutaminase. A review with observations on the histochemical and immunochemical localization of the enzyme. *Journal of Investigative Dermatology* 1975;65(1):107-112. Not sensitivity or specificity of an identified test
- Buyse I, Sandkuyl L A, Zamani Ghabanbasani M et al. Association of particular HLA class II alleles, haplotypes and genotypes with susceptibility to IDDM in the Belgian population. *Diabetologia* 1994;37(8):808-817. Not sensitivity or specificity of an identified test
- Cacciamani Tiziana, Virgili Samantha, Centurelli Matteo et al. Specific methylation of the CpG-rich domains in the promoter of the human tissue transglutaminase gene. *Gene* 2002;297(1-2):103-112. Not sensitivity or specificity of an identified test
- Cacciari E, Salardi S, Lazzari R et al. Short stature and celiac disease: a relationship to consider even in patients with no gastrointestinal tract symptoms. *Journal of Pediatrics* 1983;103(5):708-711. Not sensitivity or specificity of an identified test
- Cacciari E, Salardi S, Volta U et al. Antigliadin antibodies in coeliac children with short stature. *Lancet* 1985;2(8469-8470):1434 Not sensitivity or specificity of an identified test
- Cacciari E, Salardi S, Volta U et al. Can antigliadin antibody detect symptomless coeliac disease in children with short stature?. *Lancet* 1985;1(8444):1469-1471. Serology <1990
- Caffarelli C, Romanini E, Caruana P et al. Clinical food hypersensitivity: the relevance of duodenal immunoglobulin E-positive cells. *Pediatric Research* 1998;44(4):485-490. Not sensitivity or specificity of an identified test
- Caffrey C, Hitman G A, Niven M J et al. HLA-DP and coeliac disease: family and population studies. *Gut* 1990;31(6):663-667. Not sensitivity or specificity of an identified test
- Calabuig M, Torregosa R, Polo P et al. Serological markers and celiac disease: a new diagnostic approach?. *Journal of Pediatric Gastroenterology and Nutrition* 1990;10(4):435-442. Improper control group
- Calam J, Ellis A, Dockray G J. Identification and measurement of molecular variants of cholecystokinin in duodenal mucosa and plasma. Diminished concentrations in patients with celiac disease. *Journal of Clinical Investigation* 1982;69(1):218-225. Not sensitivity or specificity of an identified test
- Calero P, Ribes-Koninckx C, Albiach V et al. IgA antigliadin antibodies as a screening method for nonovert celiac disease in children with insulin-dependent diabetes mellitus. *Journal of Pediatric Gastroenterology and Nutrition* 1996;23(1):29-33. Not sensitivity or specificity of an identified test
- Camarero C, Eiras P, Asensio A et al. Intraepithelial lymphocytes and coeliac disease: permanent changes in CD3-/CD7+ and T cell receptor gamma/delta subsets studied by flow cytometry. *Acta Paediatrica (Oslo, Norway - 1992)* 2000;89(3):285-290. Not sensitivity or specificity of an identified test
- Cameron E A, Stewart J A, West K P et al. Coeliac disease presenting with intraperitoneal haemorrhage. *European*

- Journal of Gastroenterology & Hepatology 1998;10(7):619-620. Not sensitivity or specificity of an identified test
- Cameron P U, Mallal S A, French M A H et al. Major histocompatibility complex genes influence the outcome of HIV infection: Ancestral haplotypes with C4 null alleles explain diverse HLA associations. *Hum Immunol* 1990;29(4):282-295. Not sensitivity or specificity of an identified test
- Campbell C B, Roberts R K, Cowen A E. The changing clinical presentation of coeliac disease in adults. *Medical Journal of Australia* 1977;1(4):89-93. Not sensitivity or specificity of an identified test
- Campbell R D, Dodds A W, Porter R R. The binding of human complement component C4 to antibody-antigen aggregates. *Biochemical Journal* 1980;189(1):67-80. Not sensitivity or specificity of an identified test
- Candi E, Paradisi A, Terrinoni A et al. Role of transglutaminase 5 in epidermis. *Minerva Biotechnol* 2002;14(2):155-158. Not sensitivity or specificity of an identified test
- Candi Eleonora, Oddi Sergio, Paradisi Andrea et al. Expression of transglutaminase 5 in normal and pathologic human epidermis. *Journal of Investigative Dermatology* 2002;119(3):670-677. Not sensitivity or specificity of an identified test
- Caraglia M, Marra M, Giuberti G et al. The role of eukaryotic initiation factor 5A in the control of cell proliferation and apoptosis. *Amino Acids* 2001;20(2):91-104. Not sensitivity or specificity of an identified test
- Caraglia Michele, Marra Monica, Giuberti Gaia et al. Theophylline-induced apoptosis is paralleled by protein kinase A-dependent tissue transglutaminase activation in cancer cells. *Journal of Biochemistry* 2002;132(1):45-52. Not sensitivity or specificity of an identified test
- Carbonara A O, DeMarchi M, van Loghem E et al. Gm markers in celiac disease. *Human Immunology* 1983;6(2):91-95. Not sensitivity or specificity of an identified test
- Carbonnel F, D'Almagne H, Lavergne A et al. The clinicopathological features of extensive small intestinal CD4 T cell infiltration. *Gut* 1999;45(5):662-667. Not sensitivity or specificity of an identified test
- Carbonnel F, Grollet-Bioul L, Brouet J C et al. Are complicated forms of celiac disease cryptic T-cell lymphomas?. *Blood* 1998;92(10):3879-3886. Not sensitivity or specificity of an identified test
- Carcassi C, Cottoni F, Floris L et al. HLA haplotypes and class II molecular alleles in Sardinian and Italian patients with pemphigus vulgaris. *Tissue Antigens* 1996;48(6):662-667. Not sensitivity or specificity of an identified test
- Cardaba B, Cortegano I, Flondo F et al. Genetic restrictions in olive pollen allergy. *J Allergy Clin Immunol* 2000;105(2 I):292-298. Not sensitivity or specificity of an identified test
- Cardaba B, de Pablo R, Vilches C et al. Allergy to olive pollen: T-cell response from olive allergic patients is restricted by DR7-DQ2 antigens. *Clin Exp Allergy* 1996;26(3):316-322. Not sensitivity or specificity of an identified test
- Cardaba B, Ezendam J, Gallardo S et al. DR2 antigens are associated with severity of disease in toxic oil syndrome (TOS). *Tissue Antigens* 2000;55(2):110-117. Not sensitivity or specificity of an identified test
- Cardaba B, Vilches C, Martin E et al. DR7 and DQ2 are positively associated with immunoglobulin-E response to the main antigen of olive pollen (Ole e I) in allergic patients. *Hum Immunol* 1993;38(4):293-299. Not sensitivity or specificity of an identified test
- Cariello L, Velasco P T, Wilson J et al. Probing the transglutaminase-mediated, posttranslational modification of proteins during development. *Biochemistry* 1990;29(21):5103-5108. Not sensitivity or specificity of an identified test
- Carlsson A K, Axelsson I E, Borulf S K et al. Serological screening for celiac disease in healthy 2.5-year-old children in Sweden. *Pediatrics* 2001;107(1):42-45. Not sensitivity or specificity of an identified test
- Carlsson A K, Axelsson I E, Borulf S K et al. Prevalence of IgA-antiendomysium and IgA-antigliadin autoantibodies at diagnosis of insulin-dependent diabetes mellitus in Swedish children and adolescents. *Pediatrics* 1999;103(6 Pt 1):1248-1252. Not sensitivity or specificity of an identified test
- Carlsson A, Axelsson I, Borulf S et al. Prevalence of IgA-antigliadin antibodies and IgA-antiendomysium antibodies related to celiac disease in children with Down syndrome. *Pediatrics* 1998;101(2):272-275. Not sensitivity or specificity of an identified test
- Carlsson Annelie K, Lindberg Bengt A, Bredberg Anders C A et al. Enterovirus infection during pregnancy is not a risk factor for celiac disease in the offspring. *Journal of Pediatric Gastroenterology and Nutrition* 2002;35(5):649-652. Not sensitivity or specificity of an identified test
- Carnicer J, Farre C, Varea V et al. Prevalence of coeliac disease in Down Syndrome. *European Journal of Gastroenterology & Hepatology* 2001;13(3):263-267. Not sensitivity or specificity of an identified test
- Carpenter C B. Autoimmunity and HLA. *Journal of Clinical Immunology* 1982;2(3):157-165. Not sensitivity or specificity of an identified test
- Carpino F, Ceccamea A, Magliocca F M et al. Scanning electron microscopy of jejunal biopsies in patients with

untreated and treated coeliac disease. *Acta Paediatrica Scandinavica* 1985;74(5):775-781. Unable to extract data

Carr K E, Toner P G. Surface studies of acute radiation injury in the mouse intestine. *Virchows Archiv.B- Cell Pathology* 1972;11(3):201-210. Not sensitivity or specificity of an identified test

Carroccio A, Cavataio F, Iacono G et al. IgA antiendomysial antibodies on the umbilical cord in diagnosing celiac disease. Sensitivity, specificity, and comparative evaluation with the traditional kit. *Scandinavian Journal of Gastroenterology* 1996;31(8):759-763. Improper control group

Carroccio A, Custro N, Montalto G et al. Evidence of transient IgA anti-endomysial antibody positivity in a patient with Graves' disease. *Digestion* 1999;60(1):86-88. Not sensitivity or specificity of an identified test

Carroccio A, Giannitrapani L, Soresi M et al. Guinea pig transglutaminase immunolinked assay does not predict coeliac disease in patients with chronic liver disease. *Gut* 2001;49(4):506-511. Not sensitivity or specificity of an identified test

Carroccio A, Iacono G, Montalto G et al. Pancreatic insufficiency in celiac disease is not dependent on nutritional status. *Digestive Diseases and Sciences* 1994;39(10):2235-2242. Not sensitivity or specificity of an identified test

Carroccio A, Iannitto E, Cavataio F et al. Sideropenic anemia and celiac disease: one study, two points of view. *Digestive Diseases and Sciences* 1998;43(3):673-678. Not sensitivity or specificity of an identified test

Carroccio A, Iovanna J L, Iacono G et al. Pancreatitis-associated protein in patients with celiac disease: serum levels and immunocytochemical localization in small intestine. *Digestion* 1997;58(2):98-103. Not sensitivity or specificity of an identified test

Carroccio Antonio, Iannitto Emilio, Di Prima et al. Screening for celiac disease in non-Hodgkin's lymphoma patients: a serum anti-transglutaminase-based approach. *Digestive Diseases and Sciences* 2003;48(8):1530-1536. Not sensitivity or specificity of an identified test

Carswell F, Ferguson A. Food antibodies in serum--a screening test for coeliac disease. *Archives of Disease in Childhood* 1972;47(254):594-596. Not sensitivity or specificity of an identified test

Carswell F, Ferguson A. Plasma food antibodies during withdrawal and reintroduction of dietary gluten in coeliac disease. *Arch Dis Child* 1973;48(8):583-586. Not sensitivity or specificity of an identified test

Carswell F, Gibson A A, McAllister T A. Giardiasis and coeliac disease. *Archives of Disease in Childhood* 1973;48(6):414-418. Not sensitivity or specificity of an

identified test

Carter M J, Willcocks M M, Mitchison H C et al. Is a persistent adenovirus infection involved in coeliac disease?. *Gut* 1989;30(11):1563-1567. Not sensitivity or specificity of an identified test

Caruso C, Candore G, Modica M A et al. Immunoglobulin heavy chain allotypes in a sample of Sicilian patients with celiac disease. *Experimental and Clinical Immunogenetics* 1991;8(1):1-5. Not sensitivity or specificity of an identified test

Casadio R, Polverini E, Mariani P et al. The structural basis for the regulation of tissue transglutaminase by calcium ions. *European Journal of Biochemistry / Febs* 1999;262(3):672-679. Not sensitivity or specificity of an identified test

Case April, Stein Ross L. Kinetic analysis of the action of tissue transglutaminase on peptide and protein substrates. *Biochemistry* 2003;42(31):9466-9481. Not sensitivity or specificity of an identified test

Casellas F, de Torres I, Malagelada J R. Improved screening for intestinal villous atrophy by D-xylose breath test. *Digestive Diseases and Sciences* 2000;45(1):18-22. Not sensitivity or specificity of an identified test

Casellas F, de Torres I, Malagelada J-R. Follow-up of celiac disease with D-xylose breath test. *Digestive Diseases and Sciences* 1996;41(10):2106-2111. Not sensitivity or specificity of an identified test

Casellas F, Sardi J, de Torres I et al. Hydrogen breath test with D-xylose for celiac disease screening is as useful in the elderly as in other age groups. *Digestive Diseases and Sciences* 2001;46(10):2201-2205. Not sensitivity or specificity of an identified test

Caspary W F, Winckler K, Lankisch P G et al. Influence of exocrine and endocrine pancreatic function on intestinal brush border enzymatic activities. *Gut* 1975;16(2):89-92. Not sensitivity or specificity of an identified test

Cassiman J J, van der, Schueren B et al. Qualitative and quantitative differences in spreading of human fibroblasts on various protein coats. Modulation by treatment of the cells with amines. *Journal of Cell Science* 1982;5479-95. Not sensitivity or specificity of an identified test

Castellino F, Scaglione N, Grosso S B et al. A novel method for detecting IgA endomysial antibodies by using human umbilical vein endothelial cells. *European Journal of Gastroenterology & Hepatology* 2000;12(1):45-49. Improper control group

Castro M, Crino A, Papadatou B et al. Down Syndrome and celiac disease: the prevalence of high IgA-antigliadin antibodies and HLA-DR and DQ antigens in trisomy 21. *Journal of Pediatric Gastroenterology and Nutrition* 1993;16(3):265-268. Improper control group

- Cataldo F, Lio D, Marino V et al. Cytokine genotyping (TNF and IL-10) in patients with celiac disease and selective IgA deficiency. *American Journal of Gastroenterology* 2003;98(4):850-856. Not sensitivity or specificity of an identified test
- Cataldo F, Marino V, Bottaro G et al. Celiac disease and selective immunoglobulin A deficiency. *Journal of Pediatrics* 1997;131(2):306-308. Not sensitivity or specificity of an identified test
- Cataldo F, Marino V, Ventura A et al. Prevalence and clinical features of selective immunoglobulin A deficiency in coeliac disease: an Italian multicentre study. *Italian Society of Paediatric Gastroenterology and Hepatology (SIGEP) and "Club del Tenue" Working Groups on Coeliac Disease. Gut* 1998;42(3):362-365. Not sensitivity or specificity of an identified test
- Cataldo F, Ventura A, Lazzari R et al. Antiendomysium antibodies and coeliac disease: solved and unsolved questions. An Italian multicentre study. *Acta Paediatrica (Oslo, Norway - 1992)* 1995;84(10):1125-1131. Improper control group
- Cataldo Francesco, Marino Vincenzo. Increased prevalence of autoimmune diseases in first-degree relatives of patients with celiac disease. *Journal of Pediatric Gastroenterology and Nutrition* 2003;36(4):470-473. Not sensitivity or specificity of an identified test
- Catassi C. Intestinal permeability tests: Research or diagnosis?. *Pediatr Rev Commun* 1993;7(3):202-205. Not sensitivity or specificity of an identified test
- Catassi C, Fabiani E. The spectrum of coeliac disease in children. *Bailliere's Clinical Gastroenterology* 1997;11(3):485-507. Not sensitivity or specificity of an identified test
- Catassi C, Doloretta Macis M, Ratsch I M et al. The distribution of DQ genes in the Saharawi population provides only a partial explanation for the high celiac disease prevalence. *Tissue Antigens* 2001;58(6):402-406. Improper control group
- Catassi C, Fabiani E, Gasparin M et al. Quantitative antigliadin antibody measurement in clinical practice: an Italian multicentre study. *SIGEP Working Group on Quantitative AGA Standardization. Italian Journal of Gastroenterology and Hepatology* 1999;31(5):366-370. Improper control group
- Catassi C, Fabiani E, Ratsch I M et al. Celiac disease in the general population: Should we treat asymptomatic cases?. *Journal of Pediatric Gastroenterology and Nutrition* 1997;24(5):S10-S13. Not sensitivity or specificity of an identified test
- Catassi C, Fabiani E, Ratsch I M et al. The coeliac iceberg in Italy. A multicentre antigliadin antibodies screening for coeliac disease in school-age subjects. *Acta Paediatrica (Oslo, Norway - 1992).Supplement* 1996;41229-35. Not sensitivity or specificity of an identified test
- Catassi C, Fanciulli G, D'Appello A R et al. Antiendomysium versus antigliadin antibodies in screening the general population for coeliac disease. *Scandinavian Journal of Gastroenterology* 2000;35(7):732-736. Improper control group
- Catassi C, Fornaroli F, Fasano A. Celiac disease: From basic immunology to bedside practice. *Clin Appl Immunol Rev* 2002;3(1-2):61-71. Not sensitivity or specificity of an identified test
- Catassi C, Guerrieri A, Bartolotta E. Antigliadin antibodies at onset of diabetes in children. *Lancet* 1987;2(8551):158. Not sensitivity or specificity of an identified test
- Catassi C, Ratsch I M, Fabiani E et al. High prevalence of undiagnosed coeliac disease in 5280 Italian students screened by antigliadin antibodies. *Acta Paediatrica (Oslo, Norway - 1992)* 1995;84(6):672-676. Not sensitivity or specificity of an identified test
- Catassi C, Ratsch I M, Fabiani E et al. Coeliac disease in the year 2000: exploring the iceberg. *Lancet* 1994;343(8891):200-203. Not sensitivity or specificity of an identified test
- Catassi C, Ratsch I-M, Gandolfi L et al. Why is coeliac disease endemic in the people of the Sahara?. *Lancet* 1999;354(9179):647-648. Not sensitivity or specificity of an identified test
- Catassi C, Rossini M, Ratsch I M et al. Dose dependent effects of protracted ingestion of small amounts of gliadin in coeliac disease children: a clinical and jejunal morphometric study. *Gut* 1993;34(11):1515-1519. Not sensitivity or specificity of an identified test
- Catassi Carlo, Fabiani Elisabetta, Corrao Giovanni et al. Risk of non-Hodgkin lymphoma in celiac disease. *Jama - the Journal of the American Medical Association* 2002;287(11):1413-1419. Not sensitivity or specificity of an identified test
- Catino M, Tumini S, Mezzetti A et al. Coeliac disease and diabetes mellitus in children: A non casual association. *Diabetes Nutr Metab Clin Exp* 1998;11(5):296-302. Not sensitivity or specificity of an identified test
- Cavataio F, Iacono G, Carroccio A et al. Diagnostic accuracy of a new stick micromethod with which to measure antigliadin antibodies. *Journal of Pediatric Gastroenterology and Nutrition* 1994;19(4):401-402. Not sensitivity or specificity of an identified test
- Cellier C, Cervoni J P, Patey N et al. Gluten-free diet induces regression of T-cell activation in the rectal mucosa of patients with celiac disease. *American Journal of*

- Gastroenterology 1998;93(9):1527-1530. Not sensitivity or specificity of an identified test
- Cellier C, Cuillierier E, Patey-Mariaud de et al. Push enteroscopy in celiac sprue and refractory sprue. *Gastrointestinal Endoscopy* 1999;50(5):613-617. Not sensitivity or specificity of an identified test
- Cellier C, Delabesse E, Helmer C et al. Refractory sprue, coeliac disease, and enteropathy-associated T-cell lymphoma. French Coeliac Disease Study Group. *Lancet* 2000;356(9225):203-208. Not sensitivity or specificity of an identified test
- Cellier C, Patey N, Mauvieux L et al. Abnormal intestinal intraepithelial lymphocytes in refractory sprue. *Gastroenterology* 1998;114(3):471-481. Not sensitivity or specificity of an identified test
- Cerio R, Griffiths C E, Cooper K D et al. Characterization of factor XIIIa positive dermal dendritic cells in normal and inflamed skin. *British Journal of Dermatology* 1989;121(4):421-431. Not sensitivity or specificity of an identified test
- Cerio R, Rao B K, Spaul J et al. An immunohistochemical study of fibrous papule of the nose: 25 cases. *Journal of Cutaneous Pathology* 1989;16(4):194-198. Not sensitivity or specificity of an identified test
- Cerio R, Spaul J, Jones E W. Histiocytoma cutis: a tumour of dermal dendrocytes (dermal dendrocytoma). *British Journal of Dermatology* 1989;120(2):197-206. Not sensitivity or specificity of an identified test
- Cerio R, Spaul J, Oliver G F et al. A study of factor XIIIa and MAC 387 immunolabeling in normal and pathological skin. *American Journal of Dermatopathology* 1990;12(3):221-233. Not sensitivity or specificity of an identified test
- Cervetto J L, Ramonet M, Nahmod L H et al. Giardiasis. Functional, immunological and histological study of the small bowel. Therapeutic trial with a single dose of tinidazole. *Arquivos De Gastroenterologia* 1987;24(2):102-112. Not sensitivity or specificity of an identified test
- Cetinkaya H, Altintas B, Palabiyikoglu M et al. Diagnostic value of antigliadin antibodies in gluten sensitive enteropathy. *Turk J Gastroenterol* 1997;8(1):89-93. Improper control group
- Chakrabarti S, Kobayashi K S, Flavell R A et al. Impaired membrane resealing and autoimmune myositis in synaptotagmin VII-deficient mice. *J Cell Biol* 2003;162(4):543-549. Not sensitivity or specificity of an identified test
- Challacombe D N. Screening tests for coeliac disease. *Archives of Disease in Childhood* 1995;73(1):3-4. Not sensitivity or specificity of an identified test
- Challacombe D N, Dawkins P D. Increased tissue concentrations of histamine in the duodenal mucosa of children with coeliac disease. *Journal of Clinical Pathology* 1982;35(6):596-598. Not sensitivity or specificity of an identified test
- Challacombe D N, McDonald D T, Wheeler E E. A quantitative assessment of jejunal villous damage in coeliac disease, using the mucosal index. *Hepato-Gastroenterology* 1983;30(3):113-115. Unable to extract data
- Challacombe D N, Mecrow I K, Elliott K et al. Changing infant feeding practices and declining incidence of coeliac disease in West Somerset. *Arch Dis Child* 1997;77(3):206-209. Not sensitivity or specificity of an identified test
- Challacombe D N, Sandler M, Southgate J. Decreased duodenal monoamine oxidase activity in coeliac disease. *Archives of Disease in Childhood* 1971;46(246):213-215. Not sensitivity or specificity of an identified test
- Champlaud M F, Burgeson R E, Jin W et al. cDNA cloning and characterization of sciellin, a LIM domain protein of the keratinocyte cornified envelope. *Journal of Biological Chemistry* 1998;273(47):31547-31554. Not sensitivity or specificity of an identified test
- Chan K N, Philips A D, Walker-Smith J A et al. Serum interleukin-2 receptor in infants and young children. *Acta Paediatr Int J Paediatr* 1995;84(2):151-155. Not sensitivity or specificity of an identified test
- Chan K N, Phillips A D, Mirakian R et al. Endomysial antibody screening in children. *Journal of Pediatric Gastroenterology and Nutrition* 1994;18(3):316-320. Improper control group
- Chandra R K, Sahni S. Immunological aspects of gluten intolerance. *Nutrition Reviews* 1981;39(3):117-120. Not sensitivity or specificity of an identified test
- Chapman B L, Henry K, Paice F et al. A new technique for examining intestinal biopsies. *Gut* 1972;13(10):846. Not sensitivity or specificity of an identified test
- Chapman B L, Henry K, Paice F et al. A new technique for examining intestinal biopsies. *Gut* 1973;14(11):905-909. Not sensitivity or specificity of an identified test
- Chapoval S P, Iijima K, Marietta E V et al. Allergic inflammatory response to short ragweed allergenic extract in HLA-DQ transgenic mice lacking CD4 gene. *J Immunol* 2002;168(2):890-899. Not sensitivity or specificity of an identified test
- Charron D. HLA class II disease associations: Molecular basis. *J Autoimmun* 1992;5(Suppl A):45-53. Not sensitivity or specificity of an identified test
- Chartrand L J, Russo P A, Duhaime A G et al. Wheat starch intolerance in patients with celiac disease. *Journal of the American Dietetic Association* 1997;97(6):612-618.

Not sensitivity or specificity of an identified test

Chatzicostas Costantinos, Roussomoustakaki Maria, Drygiannakis Dimitrios et al. Primary biliary cirrhosis and autoimmune cholangitis are not associated with coeliac disease in Crete. *Bmc Gastroenterology Electronic Resource* 2002;2(1):5. Not sensitivity or specificity of an identified test

Chauhan B, Santiago L, Hutcheson P S et al. Evidence for the involvement of two different MHC class II regions in susceptibility or protection in allergic bronchopulmonary aspergillosis. *J Allergy Clin Immunol* 2000;106(4):723-729. Not sensitivity or specificity of an identified test

Cheli R, Giacosa A. Inflammatory cell count and identification in specific duodenitis. (Celiac disease, Whipple's disease and Crohn's disease). Comparison with jejunal findings. *Endoscopy* 1977;9(3):147-151. Unable to extract data

Cheli R, Giacosa A. Does malabsorption occur in atrophic duodenitis?. *Hepato-Gastroenterology* 1984;31(6):272-273. Not sensitivity or specificity of an identified test

Chen D, Ueda R, Harding F et al. Characterization of HLA DR3/DQ2 transgenic mice: A potential humanized animal model for autoimmune disease studies. *Eur J Immunol* 2003;33(1):172-182. Not sensitivity or specificity of an identified test

Chen J S, Mehta K. Tissue transglutaminase: an enzyme with a split personality. *International Journal of Biochemistry & Cell Biology* 1999;31(8):817-836. Not sensitivity or specificity of an identified test

Chen S, Lin F, Iismaa S et al. Alpha1-adrenergic receptor signaling via Gh is subtype specific and independent of its transglutaminase activity. *Journal of Biological Chemistry* 1996;271(50):32385-32391. Not sensitivity or specificity of an identified test

Chen Z, Dudek N, Wijburg O et al. A 320-kilobase artificial chromosome encoding the human HLA DR3-DQ2 MHC haplotype confers HLA restriction in transgenic mice. *J Immunol* 2002;168(6):3050-3056. Not sensitivity or specificity of an identified test

Cheng Hong, Wang Jun, Zhang Chuan et al. Clinicopathologic study of mucosa-associated lymphoid tissue lymphoma in gastroscopic biopsy. *World Journal of Gastroenterology - Wjg* 2003;9(6):1270-1272. Not sensitivity or specificity of an identified test

Cheong K Y, Allcock R J N, Eerligh P et al. Localization of central MHC genes influencing type I diabetes. *Hum Immunol* 2001;62(12):1363-1370. Not sensitivity or specificity of an identified test

Chernavsky Alejandra C, Rubio Andrea E, Vanzulli Silvia et al. Evidences of the involvement of Bak, a member of the Bcl-2 family of proteins, in active coeliac disease.

*Autoimmunity* 2002;35(1):29-37. Not sensitivity or specificity of an identified test

Chhaya S U, Shankarkumar U. HLA antigen distribution in Jain population from Mumbai, Maharashtra, India. *Indian J Med Res* 2001;113(July):25-29. Not sensitivity or specificity of an identified test

Chiantore M V, Giandomenico V, De Luca L M. Carcinoma cell lines resistant for growth inhibition and apoptosis to retinoic acid are responsive to 4-hydroxy-phenyl-retinamide: correlation with tissue transglutaminase. *Biochemical and Biophysical Research Communications* 1999;254(3):636-641. Not sensitivity or specificity of an identified test

Chicz R M, Lane W S, Robinson R A et al. Self-peptides bound to the type I diabetes associated class II MHC molecules HLA-DQ1 and HLA-DQ8. *Int Immunol* 1994;6(11):1639-1649. Not sensitivity or specificity of an identified test

Chimenti C, Pieroni M, Frustaci A. Celiac disease in idiopathic dilated cardiomyopathy. *Ital Heart J* 2001;2(9):658-659. Not sensitivity or specificity of an identified test

Chin R L, Sander H W, Brannagan T H et al. Celiac neuropathy. *Neurology* 2003;60(10):1581-1585. Not sensitivity or specificity of an identified test

Chirido F G, Rumbo M, Anon M C et al. Presence of high levels of non-degraded gliadin in breast milk from healthy mothers. *Scandinavian Journal of Gastroenterology* 1998;33(11):1186-1192. Not sensitivity or specificity of an identified test

Chirido F G, Zwirner N W, Rumbo M et al. In vitro presentation of gliadin-derived peptides by different cell lines. *Clin Chim Acta* 2002;317(1-2):151-158. Not sensitivity or specificity of an identified test

Choate K A, Khavari P A. Sustainability of keratinocyte gene transfer and cell survival in vivo. *Human Gene Therapy* 1997;8(8):895-901. Not sensitivity or specificity of an identified test

Chorzelski T P, Beutner E H, Sulej J et al. IgA anti-endomysium antibody. A new immunological marker of dermatitis herpetiformis and coeliac disease. *British Journal of Dermatology* 1984;111(4):395-402. Serology <1990

Chorzelski T P, Jablonska S, Chadzynska M et al. IgA endomysium antibody in children with dermatitis herpetiformis treated with gluten-free diet. *Pediatric Dermatology* 1986;3(4):291-294. Not sensitivity or specificity of an identified test

Chorzelski T P, Sulej J, Tchorzewska H et al. IgA class endomysium antibodies in dermatitis herpetiformis and coeliac disease. *Annals of the New York Academy of Sciences* 1983;420:325-334. Not sensitivity or specificity of

an identified test

Chou K-Y, Chan M, Bias W B. Differential expression of the down-regulatory function of CD8 cells in trichosanthin-induced immunosuppression and its genetic control in humans. *Eur J Immunogenet* 1996;23(1):29-40. Not sensitivity or specificity of an identified test

Chou S M, Taniguchi A, Wang H S et al. Serpin=serine protease-like complexes within neurofilament conglomerates of motoneurons in amyotrophic lateral sclerosis. *Journal of the Neurological Sciences* 1998;160 Suppl 1s73-s79. Not sensitivity or specificity of an identified test

Chowdhury Z A, Barsigian C, Chalupowicz G D et al. Colocalization of tissue transglutaminase and stress fibers in human vascular smooth muscle cells and human umbilical vein endothelial cells. *Experimental Cell Research* 1997;231(1):38-49. Not sensitivity or specificity of an identified test

Christenson M J, LaRosa T, Jung M et al. Hypomorphic C4B\*15 variant of the fourth component of complement. *Febs Lett* 1990;260(2):183-186. Not sensitivity or specificity of an identified test

Christiansen O B. The possible role of classical human leukocyte antigens in recurrent miscarriage. *Am J Reprod Immunol* 1999;42(2):110-115. Not sensitivity or specificity of an identified test

Christou H, Connors J M, Ziotopoulou M et al. Cord blood leptin and insulin-like growth factor levels are independent predictors of fetal growth. *Journal of Clinical Endocrinology and Metabolism* 2001;86(2):935-938. Not sensitivity or specificity of an identified test

Chrysomali E, Papanicolaou S I, Dekker N P et al. Benign neural tumors of the oral cavity: a comparative immunohistochemical study. *Oral Surgery, Oral Medicine, Oral Pathology, Oral Radiology, and Endodontics* 1997;84(4):381-390. Not sensitivity or specificity of an identified test

Chuang C K, Shen Y C, Wu J H et al. Immunobiologic, cytogenetic and drug response features of a newly established cell line (SCRC-1) from renal small cell carcinoma. *Journal of Urology* 2000;163(3):1016-1021. Not sensitivity or specificity of an identified test

Chumpitazi B F, Boussaid A, Pelloux H et al. Diagnosis of congenital toxoplasmosis by immunoblotting and relationship with other methods. *Journal of Clinical Microbiology* 1995;33(6):1479-1485. Not sensitivity or specificity of an identified test

Chun W, Lesort M, Tucholski J et al. Tissue transglutaminase selectively modifies proteins associated with truncated mutant huntingtin in intact cells. *Neurobiology of Disease* 2001;8(3):391-404. Not sensitivity or specificity of an identified test

Chun W, Lesort M, Tucholski J et al. Tissue transglutaminase does not contribute to the formation of mutant huntingtin aggregates. *Journal of Cell Biology* 2001;153(1):25-34. Not sensitivity or specificity of an identified test

Chung M H. Analysis of small bowel biopsies. A clinical and histopathological correlation. *Yonsei Medical Journal* 1968;9(2):105-115. Unable to extract data

Chung Wu, Mathews K P. Generation of drug metabolite antigenicity in the intestinal mucosa. *Immunopharmacology* 1986;12(1):53-58. Not sensitivity or specificity of an identified test

Chuttani H K, Jain K, Misra R C. Small bowel in typhoid fever. *Gut* 1971;12(9):709-712. Not sensitivity or specificity of an identified test

Chuttani H K, Kasthuri D, Misra R C. Course and prognosis of tropical sprue. *Journal of Tropical Medicine and Hygiene* 1968;71(4):96-99. Not sensitivity or specificity of an identified test

Ciacci C, Cirillo M, Giorgetti G et al. Low plasma cholesterol: a correlate of nondiagnosed celiac disease in adults with hypochromic anemia. *American Journal of Gastroenterology* 1999;94(7):1888-1891. Not sensitivity or specificity of an identified test

Ciacci C, Di Vizio D, Seth R et al. Selective reduction of intestinal trefoil factor in untreated coeliac disease. *Clinical and Experimental Immunology* 2002;130(3):526-531. Not sensitivity or specificity of an identified test

Ciacci C, Iavarone A, Mazzacca G et al. Depressive symptoms in adult coeliac disease. *Scandinavian Journal of Gastroenterology* 1998;33(3):247-250. Not sensitivity or specificity of an identified test

Ciacci C, Squillante A, Rendina D et al. Helicobacter pylori infection and peptic disease in coeliac disease. *European Journal of Gastroenterology & Hepatology* 2000;12(12):1283-1287. Not sensitivity or specificity of an identified test

Ciacci Carolina, Cirillo Massimo, Cavallaro Raimondo et al. Long-term follow-up of celiac adults on gluten-free diet: prevalence and correlates of intestinal damage. *Digestion* 2002;66(3):178-185. Not sensitivity or specificity of an identified test

Ciampolini M, Bini S. Serum lipids in celiac children. *Journal of Pediatric Gastroenterology and Nutrition* 1991;12(4):459-460. Not sensitivity or specificity of an identified test

Ciampolini M, Bini S, Orsi A. Microflora persistence on duodenojejunal flat or normal mucosa in time after a meal in children. *Physiol Behav* 1996;60(6):1551-1556. Not sensitivity or specificity of an identified test

Ciccocioppo R, D'Alo S, Di Sabatino A et al. Mechanisms of villous atrophy in autoimmune enteropathy and coeliac disease. *Clinical and Experimental Immunology* 2002;128(1):88-93. Not sensitivity or specificity of an identified test

Ciccocioppo R, Di Sabatino A, Parroni R et al. Cytolytic mechanisms of intraepithelial lymphocytes in coeliac disease (CoD). *Clinical and Experimental Immunology* 2000;120(2):235-240. Not sensitivity or specificity of an identified test

Ciccocioppo R, Di Sabatino A, Parroni R et al. Increased enterocyte apoptosis and Fas-Fas ligand system in celiac disease. *American Journal of Clinical Pathology* 2001;115(4):494-503. Not sensitivity or specificity of an identified test

Ciclitira P J. Recent advances in coeliac disease. *Clin Med* 2003;3(2):166-169. Not sensitivity or specificity of an identified test

Ciclitira P J, Ellis H J. In vivo gluten ingestion in coeliac disease. *Digestive Diseases (Basel, Switzerland)* 1998;16(6):337-340. Not sensitivity or specificity of an identified test

Ciclitira P J, Hall M A. Coeliac disease. *Baillieres Clin Gastroenterol* 1990;4(1):43-59. Not sensitivity or specificity of an identified test

Ciclitira P J, Sturgess R. Clinicopathologic mechanisms in celiac disease. *Curr Opin Gastroenterol* 1992;8(2):262-267. Not sensitivity or specificity of an identified test

Ciclitira P J, Cerio R, Ellis H J. Evaluation of a gliadin-containing gluten-free product in coeliac patients. *Hum Nutr Clin Nutr* 1985;39(4):303-308. Not sensitivity or specificity of an identified test

Ciclitira P J, Ellis H J, Evans D J. A solid-phase radioimmunoassay for measurement of circulating antibody titres to wheat gliadin and its subfractions in patients with adult coeliac disease. *Journal of Immunological Methods* 1983;62(2):231-239. Not sensitivity or specificity of an identified test

Ciclitira P J, Ellis H J, Venning V A. Circulating antibodies to gliadin subfractions in dermatitis herpetiformis and linear IgA dermatosis of adults and children. *Clin Exp Dermatol* 1986;11(5):502-509. Not sensitivity or specificity of an identified test

Ciclitira P J, Ellis H J, Evans D J et al. A radioimmunoassay for wheat gliadin to assess the suitability of gluten free foods for patients with coeliac disease. *Clinical and Experimental Immunology* 1985;59(3):703-708. Not sensitivity or specificity of an identified test

Ciclitira P J, Ellis H J, Wood G M et al. Secretion of

gliadin antibody by coeliac jejunal mucosal biopsies cultured in vitro. *Clinical and Experimental Immunology* 1986;64(1):119-124. Not sensitivity or specificity of an identified test

Ciclitira P J, Evans D J, Fagg N L et al. Clinical testing of gliadin fractions in coeliac patients. *Clinical Science (London, England - 1979)* 1984;66(3):357-364. Not sensitivity or specificity of an identified test

Ciclitira P J, Hooper L B, Ellis H J et al. Gliadin antibody production by small intestinal lymphocytes from patients with coeliac disease. *International Archives of Allergy and Applied Immunology* 1989;89(2-3):246-249. Not sensitivity or specificity of an identified test

Ciclitira P J, King A L, Fraser J S. AGA technical review on Celiac Sprue. *American Gastroenterological Association. Gastroenterology* 2001;120(6):1526-1540. Not sensitivity or specificity of an identified test

Ciclitira P J, Nelufer J M, Ellis H J et al. The effect of gluten on HLA-DR in the small intestinal epithelium of patients with coeliac disease. *Clinical and Experimental Immunology* 1986;63(1):101-104. Not sensitivity or specificity of an identified test

Ciclitira P J, Stewart J, Evan G et al. Expression of c-myc oncogene in coeliac disease. *Journal of Clinical Pathology* 1987;40(3):307-311. Not sensitivity or specificity of an identified test

Ciclitira Paul J, Moodie Simon J. Transition of care between paediatric and adult gastroenterology. *Coeliac disease. Best Practice & Research. Clinical Gastroenterology* 2003;17(2):181-195. Not sensitivity or specificity of an identified test

Cinek O, Dr caron, umnik Z et al. NEUROD polymorphism Ala45Thr is associated with Type 1 diabetes mellitus in Czech children. *Diabetes Res Clin Pract* 2003;60(1):49-56. Not sensitivity or specificity of an identified test

Cipolli M, Valletta E A, Zampieri C et al. Increased serum levels of antigliadin antibodies in cystic fibrosis. *Acta Paediatrica (Oslo, Norway - 1992)* 1993;82(1):95-97. Not sensitivity or specificity of an identified test

Citron B A, Gregory E J, Steigerwalt D S et al. Regulation of the dual function tissue transglutaminase/Galpha(h) during murine neuromuscular development: Gene and enzyme isoform expression. *Neurochem Int* 2000;37(4):337-349. Not sensitivity or specificity of an identified test

Citron B A, SantaCruz K S, Davies P J et al. Intron-exon swapping of transglutaminase mRNA and neuronal Tau aggregation in Alzheimer's disease. *Journal of Biological Chemistry* 2001;276(5):3295-3301. Not sensitivity or specificity of an identified test

Citron Bruce A, Suo Zhiming, SantaCruz Karen et al.

- Protein crosslinking, tissue transglutaminase, alternative splicing and neurodegeneration. *Neurochemistry International* 2002;40(1):69-78. Not sensitivity or specificity of an identified test
- Clark M L, Senior J R. Small gut mucosal activities of pyrimidine precursor enzymes in celiac disease. *Gastroenterology* 1969;56(5):887-894. Not sensitivity or specificity of an identified test
- Clegg D O, Pincus S H, Zone J J et al. Circulating HLA-DR bearing T cells: correlation with genetic rather than clinical variables. *Journal of Rheumatology* 1986;13(5):870-874. Not sensitivity or specificity of an identified test
- Clemente M G, Congia M, De Virgiliis S. The laboratory in autoimmune diseases. *Ital J Pediatr* 2002;28(1):12-18. Not sensitivity or specificity of an identified test
- Clemente M G, Musu M P, Frau F et al. Immune reaction against the cytoskeleton in coeliac disease. *Gut* 2000;47(4):520-526. Not sensitivity or specificity of an identified test
- Clemente Maria, Grazia Musu, Maria Paola et al. Antitissue transglutaminase antibodies outside celiac disease. *Journal of Pediatric Gastroenterology and Nutrition* 2002;34(1):31-34. Test-specific exclusion
- Clerget-Darpoux F, Bouguerra F, Kastally R et al. High risk genotypes for celiac disease. *Comptes Rendus De L'academie Des Sciences.Serie Iii, Sciences De La Vie* 1994;317(10):931-936. Improper control group
- Clerici N, Fernandez M, Saiz I et al. Human leukocyte antigen alleles and haplotypes associated with selective immunoglobulin A deficiency in Spanish pediatric patients. *Journal of Pediatric Gastroenterology and Nutrition* 1993;16(4):381-386. Not sensitivity or specificity of an identified test
- Clot F, Babron M C. Genetics of celiac disease. *Molecular Genetics and Metabolism* 2000;71(1-2):76-80. Review article
- Clot F, Babron M C, Percopo S et al. Study of two ectopeptidases in the susceptibility to celiac disease: two newly identified polymorphisms of dipeptidylpeptidase IV. *Journal of Pediatric Gastroenterology and Nutrition* 2000;30(4):464-466. Not sensitivity or specificity of an identified test
- Clot F, Fulchignoni-Lataud M C, Renoux C et al. Linkage and association study of the CTLA-4 region in coeliac disease for Italian and Tunisian populations. *Tissue Antigens* 1999;54(5):527-530. Not sensitivity or specificity of an identified test
- Clot F, Gianfrani C, Babron M C et al. HLA-DR53 molecules are associated with susceptibility to celiac disease and selectively bind gliadin-derived peptides. *Immunogenetics* 1999;49(9):800-807. Improper control group
- Clot F, Gianfrani C, Babron M-C et al. Response. *Immunogenetics* 2000;51(3):251. Not sensitivity or specificity of an identified test
- Cluysenaer O J J, Van Tongeren J H M. The natural history of coeliac sprue, and factors which may influence it. *Neth J Med* 1978;21(1):35-43. Not sensitivity or specificity of an identified test
- Cluysenaer O J, Schillings P H, van Tongeren J H. Mucosal lesions and malabsorption in celiac sprue. *Journal of Clinical Gastroenterology* 1982;4(5):425-429. Unable to extract data
- Cobain T J, Stuckey M S, McCluskey J. The coexistence of IgA deficiency and 21-hydroxylase deficiency marked by specific MHC supratypes. *Ann New York Acad Sci* 1985;458(-):76-84. Not sensitivity or specificity of an identified test
- Cogulu O, Ozkinay F, Gunduz C et al. Celiac disease in children with down syndrome: Importance of follow-up and serologic screening. *Pediatr Int* 2003;45(4):395-399. Not sensitivity or specificity of an identified test
- Cohen I, Anderson B. Immunochemical characterization of the transglutaminase-catalyzed polymer of activated platelets. *Thrombosis Research* 1987;47(4):409-416. Not sensitivity or specificity of an identified test
- Cole S G, Kagnoff M F. Celiac disease. *Annual Review of Nutrition* 1985;5:241-266. Not sensitivity or specificity of an identified test
- Collier P M, Wojnarowska F, Welsh K et al. Adult linear IgA disease and chronic bullous disease of childhood: The association with human lymphocyte antigens Cw7, B8, DR3 and tumour necrosis factor influences disease expression. *Br J Dermatol* 1999;141(5):867-875. Not sensitivity or specificity of an identified test
- Collighan R, Cortez J, Griffin M. The biotechnological applications of transglutaminases. *Minerva Biotechnol* 2002;14(2):143-148. Not sensitivity or specificity of an identified test
- Collin P. New diagnostic findings in coeliac disease. *Annals of Medicine* 1999;31(6):399-405. Not sensitivity or specificity of an identified test
- Collin P. Serologic screening for coeliac disease--time for tissue transglutaminase test?. *Italian Journal of Gastroenterology and Hepatology* 1998;30(5):498-499. Not sensitivity or specificity of an identified test
- Collin P, Maki M. Celiac disease--even a neurological disorder. *Journal of Pediatric Gastroenterology and Nutrition* 1997;24(1):116-117. Not sensitivity or specificity of an identified test

Collin P, Hallstrom O, Maki M et al. Atypical coeliac disease found with serologic screening. *Scandinavian Journal of Gastroenterology* 1990;25(3):245-250. Not sensitivity or specificity of an identified test

Collin P, Helin H, Maki M et al. Follow-up of patients positive in reticulin and gliadin antibody tests with normal small-bowel biopsy findings. *Scandinavian Journal of Gastroenterology* 1993;28(7):595-598. Not sensitivity or specificity of an identified test

Collin P, Kaukinen K, Maki M. Clinical features of celiac disease today. *Digestive Diseases (Basel, Switzerland)* 1999;17(2):100-106. Not sensitivity or specificity of an identified test

Collin P, Korpela M, Hallstrom O et al. Rheumatic complaints as a presenting symptom in patients with coeliac disease. *Scandinavian Journal of Rheumatology* 1992;21(1):20-23. Not sensitivity or specificity of an identified test

Collin P, Pirttila T, Nurmikko T et al. Celiac disease, brain atrophy, and dementia. *Neurology* 1991;41(3):372-375. Not sensitivity or specificity of an identified test

Collin P, Rasmussen M, Kyronpalo S et al. The hunt for coeliac disease in primary care. *Qjm - Monthly Journal of the Association of Physicians* 2002;95(2):75-77. Not sensitivity or specificity of an identified test

Collin P, Reunala T, Rasmussen M et al. High incidence and prevalence of adult coeliac disease. Augmented diagnostic approach. *Scandinavian Journal of Gastroenterology* 1997;32(11):1129-1133. Not sensitivity or specificity of an identified test

Collin P, Salmi J, Hallstrom O et al. High frequency of coeliac disease in adult patients with Type-I diabetes. *Scandinavian Journal of Gastroenterology* 1989;24(1):81-84. Not sensitivity or specificity of an identified test

Collin P, Salmi J, Hallstrom O et al. Autoimmune thyroid disorders and coeliac disease. *European Journal of Endocrinology / European Federation of Endocrine Societies* 1994;130(2):137-140. Not sensitivity or specificity of an identified test

Collin P, Vilska S, Heinonen P K et al. Infertility and coeliac disease. *Gut* 1996;39(3):382-384. Not sensitivity or specificity of an identified test

Collin Pekka, Reunala Timo. Recognition and management of the cutaneous manifestations of celiac disease: a guide for dermatologists. *American Journal of Clinical Dermatology* 2003;4(1):13-20. Not sensitivity or specificity of an identified test

Collin Pekka, Kaukinen Katri, Valimaki Matti et al. Endocrinological disorders and celiac disease. *Endocrine Reviews* 2002;23(4):464-483. Not sensitivity or specificity

of an identified test

Collin Pekka, Syrjanen Jaana, Partanen Jukka et al. Celiac disease and HLA DQ in patients with IgA nephropathy. *American Journal of Gastroenterology* 2002;97(10):2572-2576. Improper control group

Collins A L, Brookfield D S, Hyde I et al. Small bowel biopsy. *Archives of Disease in Childhood* 1985;60(11):1082-1085. Not sensitivity or specificity of an identified test

Collins B J, Bell P M, Thomson J M et al. Dietary history and nutritional state in treated coeliac patients. *Journal of the Royal Society of Medicine* 1986;79(4):206-209. Not sensitivity or specificity of an identified test

Colombel J F, Mascart-Lemone F, Nemeth J et al. Jejunal immunoglobulin and antigliadin antibody secretion in adult coeliac disease. *Gut* 1990;31(12):1345-1349. Not sensitivity or specificity of an identified test

Colombel J F, Torpier G, Janin A et al. Activated eosinophils in adult coeliac disease: evidence for a local release of major basic protein. *Gut* 1992;33(9):1190-1194. Not sensitivity or specificity of an identified test

Colombo Gualtiero, Buffa Roberto, Bardella Maria et al. Anti-inflammatory effects of alpha-melanocyte-stimulating hormone in celiac intestinal mucosa. *Neuroimmunomodulation* 2003;10(4):208-216. Not sensitivity or specificity of an identified test

Colonna M, Mantovani W, Corazza G R et al. Reassessment of HLA association with celiac disease in special reference to the DP association. *Human Immunology* 1990;29(4):263-274. Improper control group

Colston K W, Mackay A G, Finlayson C et al. Localisation of vitamin D receptor in normal human duodenum and in patients with coeliac disease. *Gut* 1994;35(9):1219-1225. Not sensitivity or specificity of an identified test

Combarros O, Infante J, Lopez-Hoyos M et al. Celiac disease and idiopathic cerebellar ataxia. *Neurology* 2000;54(12):2346. Not sensitivity or specificity of an identified test

Commo S, Bernard B A. Immunohistochemical analysis of tissue remodelling during the anagen-catagen transition of the human hair follicle. *British Journal of Dermatology* 1997;137(1):31-38. Not sensitivity or specificity of an identified test

Commo S, Bernard B A. Immunohistochemical analysis of tissue remodelling during the anagen-catagen transition of the human hair follicle. *G Ital Dermatol Venereol* 2002;137(2 SUPPL. 1):3-11. Not sensitivity or specificity of an identified test

Congdon P J, Fiddler G I, Littlewood J M et al. Coeliac disease associated with congenital heart disease. *Archives*

of Disease in Childhood 1982;57(1):78-79. Not sensitivity or specificity of an identified test

Congdon P, Mason M K, Smith S et al. Small-bowel mucosa in asymptomatic children with celiac disease. Mucosal changes with gluten-free diets. American Journal of Diseases of Children (1960) 1981;135(2):118-121. Unable to extract data

Congia M, Cucca F, Frau F et al. A gene dosage effect of the DQA1\*0501/DQB1\*0201 allelic combination influences the clinical heterogeneity of celiac disease. Human Immunology 1994;40(2):138-142. Improper control group

Congia M, Frau F, Lampis R et al. A high frequency of the A30, B18, DR3, DRw52, DQw2 extended haplotype in Sardinian celiac disease patients: further evidence that disease susceptibility is conferred by DQ A1\*0501, B1\*0201. Tissue Antigens 1992;39(2):78-83. Improper control group

Conkling P R, Achyuthan K E, Greenberg C S et al. Human mononuclear phagocyte transglutaminase activity cross-links fibrin. Thrombosis Research 1989;55(1):57-68. Not sensitivity or specificity of an identified test

Connon J J, McFarland J, Kelly A. Acute abdominal complications of coeliac disease. Scandinavian Journal of Gastroenterology 1975;10(8):843-846. Not sensitivity or specificity of an identified test

Conrad Karsten, Schmechta Helmut, Klafki Agnes et al. Serological differentiation of inflammatory bowel diseases. European Journal of Gastroenterology & Hepatology 2002;14(2):129-135. Not sensitivity or specificity of an identified test

Contini D, Torti A, Monti M et al. A freeze-fracture study of the enteropathy associated with dermatitis herpetiformis: a comparative investigation with coeliac disease. Journal of Cutaneous Pathology 1986;13(4):293-300. Not sensitivity or specificity of an identified test

Cook D M, Evans N, Lloyd A et al. Coeliac disease. Reappraisal of clinical diagnosis. Archives of Disease in Childhood 1971;46(249):705-708. Not sensitivity or specificity of an identified test

Cook H B, Burt M J, Collett J A et al. Adult coeliac disease: prevalence and clinical significance. Journal of Gastroenterology and Hepatology 2000;15(9):1032-1036. Not sensitivity or specificity of an identified test

Cooke W T, Asquith P. Introduction and definition. Clin Gastroenterol 1974;3(1):3-10. Not sensitivity or specificity of an identified test

Coombs R R, Kieffer M, Fraser D R et al. Naturally developing antibodies to wheat gliadin fractions and to other cereal antigens in rabbits, rats and guinea pigs on normal laboratory diets. International Archives of Allergy

and Applied Immunology 1983;70(3):200-204. Not sensitivity or specificity of an identified test

Cooper Arthur J L, Jeitner Thomas M, Gentile Vittorio et al. Cross linking of polyglutamine domains catalyzed by tissue transglutaminase is greatly favored with pathological-length repeats: does transglutaminase activity play a role in (CAG)(n)/Q(n)-expansion diseases?. Neurochemistry International 2002;40(1):53-67. Not sensitivity or specificity of an identified test

Cooper A J L, Sheu K-F, Burke J R et al. Inhibition of alpha-ketoglutarate-and pyruvate dehydrogenase complexes in E. coli by a glutathione S-transferase containing a pathological length poly- Q domain: A possible role of energy deficit in neurological diseases associated with poly-Q expansions?. Age 1998;21(1):25-30. Not sensitivity or specificity of an identified test

Cooper A J L, Sheu K-F, Burke J R et al. Transglutaminase-catalyzed inactivation of glyceraldehyde 3-phosphate dehydrogenase and alpha-ketoglutarate dehydrogenase complex by polyglutamine domains of pathological length. Proc Natl Acad Sci U S A 1997;94(23):12604-12609. Not sensitivity or specificity of an identified test

Cooper A J, Sheu K F, Burke J R et al. Pathogenesis of inclusion bodies in (CAG)n/Qn-expansion diseases with special reference to the role of tissue transglutaminase and to selective vulnerability. Journal of Neurochemistry 1999;72(3):889-899. Not sensitivity or specificity of an identified test

Cooper A J, Wang J, Pasternack R et al. Lysine-rich histone (H1) is a lysyl substrate of tissue transglutaminase: possible involvement of transglutaminase in the formation of nuclear aggregates in (CAG)(n)/Q(n) expansion diseases. Developmental Neuroscience 2000;22(5-6):404-417. Not sensitivity or specificity of an identified test

Cooper B T, Holmes G K T, Ferguson R. Celiac disease and malignancy. Medicine 1980;59(4):249-261. Not sensitivity or specificity of an identified test

Cooper B T, Holmes G K, Ferguson R et al. Gluten-sensitive diarrhea without evidence of celiac disease. Gastroenterology 1980;79(5 Pt 1):801-806. Not sensitivity or specificity of an identified test

Cooper D L, Doria R, Salloum E. Primary gastrointestinal lymphomas. Gastroenterologist 1996;4(1):54-64. Not sensitivity or specificity of an identified test

Coppo R. The pathogenetic potential of environmental antigens in IgA nephropathy. American Journal of Kidney Diseases - the Official Journal of the National Kidney Foundation 1988;12(5):420-424. Not sensitivity or specificity of an identified test

Coppo R, Amore A, Roccatello D. Dietary antigens and primary immunoglobulin A nephropathy. Journal of the

- American Society of Nephrology - Jasn 1992;2(10 Suppl):S173-S180. Not sensitivity or specificity of an identified test
- Coppo R, Mazzucco G, Martina G et al. Gluten-induced experimental IgA glomerulopathy. *Lab Invest* 1989;60(4):499-506. Not sensitivity or specificity of an identified test
- Corazza G R, Gasbarrini G. Coeliac disease in adults. *Bailliere's Clinical Gastroenterology* 1995;9(2):329-350. Not sensitivity or specificity of an identified test
- Corazza G R, Andreani M L, Biagi F et al. The smaller size of the 'coeliac iceberg' in adults. *Scandinavian Journal of Gastroenterology* 1997;32(9):917-919. Not sensitivity or specificity of an identified test
- Corazza G R, Biagi F, Volta U et al. Autoimmune enteropathy and villous atrophy in adults. *Lancet* 1997;350(9071):106-109. Not sensitivity or specificity of an identified test
- Corazza G R, Brusco G, Andreani M L et al. Previous misdiagnosis and diagnostic delay in adult celiac sprue. *Journal of Clinical Gastroenterology* 1996;22(4):324-325. Not sensitivity or specificity of an identified test
- Corazza G R, Caletti G C, Lazzari R et al. Scalloped duodenal folds in childhood celiac disease. *Gastrointestinal Endoscopy* 1993;39(4):543-545. Not sensitivity or specificity of an identified test
- Corazza G R, Falasca A, Strocchi A et al. Decreased plasma postheparin diamine oxidase levels in celiac disease. *Digestive Diseases and Sciences* 1988;33(8):956-961. Not sensitivity or specificity of an identified test
- Corazza G R, Frazzoni M, Gasbarrini G. Jejunal intraepithelial lymphocytes in coeliac disease: are they increased or decreased?. *Gut* 1984;25(2):158-162. Not sensitivity or specificity of an identified test
- Corazza G R, Frazzoni M, Dixon M F et al. Quantitative assessment of the mucosal architecture of jejunal biopsy specimens: a comparison between linear measurement, stereology, and computer aided microscopy. *Journal of Clinical Pathology* 1985;38(7):765-770. Unable to extract data
- Corazza G R, Frisoni M, Mantovani W et al. Dermatitis herpetiformis, severity of jejunal lesions and HLA DR7. *European Journal of Gastroenterology & Hepatology* 1990;2(5):357-360. Not sensitivity or specificity of an identified test
- Corazza G R, Frisoni M, Treggiari E A et al. Subclinical celiac sprue. Increasing occurrence and clues to its diagnosis. *Journal of Clinical Gastroenterology* 1993;16(1):16-21. Not sensitivity or specificity of an identified test
- Corazza G R, Ginaldi L, Falasca A et al. Diamine oxidase plasma activities after treatment with heparin and jejunal morphometry in untreated coeliac disease. *Journal of Clinical Pathology* 1989;42(11):1136-1139. Not sensitivity or specificity of an identified test
- Corazza G R, Tabacchi P, Frisoni M et al. T-lymphocyte subsets in adult coeliac disease. *Clinical Science (London, England - 1979)* 1983;65(1):89-90. Not sensitivity or specificity of an identified test
- Corazza G R, Tabacchi P, Frisoni M et al. DR and non-DR Ia allotypes are associated with susceptibility to coeliac disease. *Gut* 1985;26(11):1210-1213. Not sensitivity or specificity of an identified test
- Corazza G R, Valentini R A, Andreani M L et al. Subclinical coeliac disease is a frequent cause of iron-deficiency anaemia. *Scandinavian Journal of Gastroenterology* 1995;30(2):153-156. Not sensitivity or specificity of an identified test
- Corazza G, Valentini R A, Frisoni M et al. Gliadin immune reactivity is associated with overt and latent enteropathy in relatives of celiac patients. *Gastroenterology* 1992;103(5):1517-1522. Not sensitivity or specificity of an identified test
- Cordella-Miele E, Miele L, Mukherjee A B. A novel transglutaminase-mediated post-translational modification of phospholipase A2 dramatically increases its catalytic activity. *Journal of Biological Chemistry* 1990;265(28):17180-17188. Not sensitivity or specificity of an identified test
- Cornell H J. Amino acid composition of peptides remaining after in vitro digestion of a gliadin sub-fraction with duodenal mucosa from patients with coeliac disease. *Clin Chim Acta* 1988;176(3):279-290. Not sensitivity or specificity of an identified test
- Cornell H J, Townley R R. The effect of gliadin peptides on rat-liver lysosomes in relation to the pathogenesis of coeliac disease. *Clinica Chimica Acta* 1973;International Journal of Clinical Chemistry; 49(2):181-188. Not sensitivity or specificity of an identified test
- Corrado F, Magazzu G, Sferlazzas C. Diagnosis of celiac disease in pregnancy and puerperium: Think about it. *Acta Obstet Gynecol Scand* 2002;81(2):180-181. Not sensitivity or specificity of an identified test
- Corrao G, Corazza G R, Andreani M L et al. Serological screening of coeliac disease: choosing the optimal procedure according to various prevalence values. *Gut* 1994;35(6):771-775. Improper control group
- Costantini V, Zacharski L R, Memoli V A et al. Fibrinogen deposition without thrombin generation in primary human breast cancer tissue. *Cancer Research* 1991;51(1):349-353. Not sensitivity or specificity of an identified test

- Cottone M, Marrone C, Casa A et al. Familial occurrence of inflammatory bowel disease in celiac disease. *Inflammatory Bowel Dis* 2003;9(5):321-323. Not sensitivity or specificity of an identified test
- Cottone M, Termini A, Oliva L et al. Mortality and causes of death in celiac disease in a Mediterranean area. *Digestive Diseases and Sciences* 1999;44(12):2538-2547. Not sensitivity or specificity of an identified test
- Coutinho H B, Robalinho T I, Coutinho V B et al. Immunocytochemistry of mucosal changes in patients infected with the intestinal nematode *Strongyloides stercoralis*. *Journal of Clinical Pathology* 1996;49(9):717-720. Not sensitivity or specificity of an identified test
- Cox A D, Devine D V. Factor XIIIa binding to activated platelets is mediated through activation of glycoprotein IIb-IIIa. *Blood* 1994;83(4):1006-1016. Not sensitivity or specificity of an identified test
- Cox M A, Lewis K O, Cooper B T. Sucroseemia in untreated celiac disease: a potential screening test. *Digestive Diseases and Sciences* 1998;43(5):1096-1101. Not sensitivity or specificity of an identified test
- Crabtree J E, Heatley R V, Trejdosiewicz L K et al. T lymphocyte stimulation of human small intestinal glycoprotein biosynthesis: effects of anti-CD3 antibody on normal and coeliac mucosa. *International Archives of Allergy and Applied Immunology* 1990;93(1):35-40. Not sensitivity or specificity of an identified test
- Cremata J A, Sorell L, Montesino R et al. Hypogalactosylation of serum IgG in patients with coeliac disease. *Clinical and Experimental Immunology* 2003;133(3):422-429. Not sensitivity or specificity of an identified test
- Crenn Pascal, Vahedi Kouroche, Lavergne-Slove Anne et al. Plasma citrulline: A marker of enterocyte mass in villous atrophy-associated small bowel disease. *Gastroenterology* 2003;124(5):1210-1219. Not sensitivity or specificity of an identified test
- Cristallo M, Braga M, Agape D et al. Nutritional status, function of the small intestine and jejunal morphology after total gastrectomy for carcinoma of the stomach. *Surgery, Gynecology & Obstetrics* 1986;163(3):225-230. Not sensitivity or specificity of an identified test
- Crofton R W, Gvozdanovic S, Gvozdanovic D. Abnormal oral zinc tolerance but normal true absorption of zinc in coeliac disease?. *Nutr Res* 1985;5(Suppl 1):S-410. Not sensitivity or specificity of an identified test
- Cronin C, Shanahan F. A significant step in the celiac puzzle. *Gastroenterology* 1998;114(6):1339-1341. Not sensitivity or specificity of an identified test
- Cronin C C, Feighery A, Ferriss J B et al. High prevalence of celiac disease among patients with insulin-dependent (type I) diabetes mellitus. *American Journal of Gastroenterology* 1997;92(12):2210-2212. Not sensitivity or specificity of an identified test
- Cronin C C, Jackson L M, Feighery C et al. Coeliac disease and epilepsy. *Qjm - Monthly Journal of the Association of Physicians* 1998;91(4):303-308. Not sensitivity or specificity of an identified test
- Cronin Cornelius C, Shanahan Fergus. Exploring the iceberg--the spectrum of celiac disease. *American Journal of Gastroenterology* 2003;98(3):518-520. Not sensitivity or specificity of an identified test
- Cryan E M, Stevens F M, Skehill R et al. Immunoglobulins in healthy controls: HLA-B8 and sex differences. *Tissue Antigens* 1985;26(4):254-258. Not sensitivity or specificity of an identified test
- Csizmadia C G D S, Mearin M L, Von Blomberg B M E et al. An iceberg of childhood coeliac disease in the Netherlands. *Lancet* 1999;353(9155):813-814. Not sensitivity or specificity of an identified test
- Csizmadia C G, Mearin M L, Oren A et al. Accuracy and cost-effectiveness of a new strategy to screen for celiac disease in children with Down syndrome. *Journal of Pediatrics* 2000;137(6):756-761. Improper control group
- Cuillerier E, Landi B, Cellier C. Is push enteroscopy useful in patients with malabsorption of unclear origin?. *American Journal of Gastroenterology* 2001;96(7):2103-2106. Not sensitivity or specificity of an identified test
- Cummins A G, Thompson F M, Butler R N et al. Improvement in intestinal permeability precedes morphometric recovery of the small intestine in coeliac disease. *Clinical Science (London, England - 1979)* 2001;100(4):379-386. Not sensitivity or specificity of an identified test
- Cunningham-Rundles S, Cunningham-Rundles C, Pollack M S. Response to wheat antigen in in vitro lymphocyte transformation among HLA-B8-positive normal donors. *Transplant Proc* 1978;10(4):977-979. Not sensitivity or specificity of an identified test
- Cuoco L, Cammarota G, Jorizzo R A et al. Link between *Helicobacter pylori* infection and iron-deficiency anaemia in patients with coeliac disease. *Scandinavian Journal of Gastroenterology* 2001;36(12):1284-1288. Not sensitivity or specificity of an identified test
- Cuoco L, Cammarota G, Tursi A et al. Disappearance of gastric mucosa-associated lymphoid tissue in coeliac patients after gluten withdrawal. *Scandinavian Journal of Gastroenterology* 1998;33(4):401-405. Not sensitivity or specificity of an identified test
- Cuoco L, Certo M, Jorizzo R A et al. Prevalence and early diagnosis of coeliac disease in autoimmune thyroid disorders. *Italian Journal of Gastroenterology and*

- Hepatology 1999;31(4):283-287. Not sensitivity or specificity of an identified test
- Cuomo A, Romano M, Rocco A et al. Reflux oesophagitis in adult coeliac disease: Beneficial effect of a gluten free diet. *Gut* 2003;52(4):514-517. Not sensitivity or specificity of an identified test
- Cuzzi-Maya T, Sidbury R, Epstein W L et al. Thrombomodulin expression on dermal cells in normal and psoriatic skin. *Archives of Dermatological Research* 1998;290(5):233-239. Not sensitivity or specificity of an identified test
- Czaja A J. Autoimmune liver disease. *Curr Opin Gastroenterol* 1999;15(3):240-248. Not sensitivity or specificity of an identified test
- Czaja A J, Norman G L. Autoantibodies in the diagnosis and management of liver disease. *Journal of Clinical Gastroenterology* 2003;37(4):315-329. Not sensitivity or specificity of an identified test
- Czaja A J, Santrach P J, Moore S B. HLA-DQ associations in type 1 autoimmune hepatitis. *Mayo Clin Proc* 1995;70(12):1154-1160. Not sensitivity or specificity of an identified test
- D'Agostino L, Ciacci C, Daniele B et al. Postheparin plasma diamine oxidase in subjects with small bowel mucosal atrophy. *Digestive Diseases and Sciences* 1987;32(3):313-317. Not sensitivity or specificity of an identified test
- D'Agostino L, Daniele B, Pignata S et al. Postheparin plasma diamine oxidase increases in patients with coeliac disease during gluten free diet. *Gut* 1987;28 Suppl131-134. Not sensitivity or specificity of an identified test
- D'Agostino L, Daniele B, Pignata S et al. Postheparin plasma diamine oxidase in subjects with small bowel disease. Diagnostic efficiency of a simplified test. *Digestion* 1988;41(1):46-54. Not sensitivity or specificity of an identified test
- D'Argenio G, Biancone L, Cosenza V et al. Transglutaminases in Crohn's disease. *Gut* 1995;37(5):690-695. Not sensitivity or specificity of an identified test
- D'Argenio G, Grossman A, Cosenza V et al. Recombinant factor XIII improves established experimental colitis in rats. *Digestive Diseases and Sciences* 2000;45(5):987-997. Not sensitivity or specificity of an identified test
- D'Argenio G, Sorrentini I, Ciacci C et al. Human serum transglutaminase and coeliac disease: correlation between serum and mucosal activity in an experimental model of rat small bowel enteropathy. *Gut* 1989;30(7):950-954. Not sensitivity or specificity of an identified test
- Dadabay C Y, Pike L J. Purification and characterization of a cytosolic transglutaminase from a cultured human tumour-cell line. *Biochemical Journal* 1989;264(3):679-685. Not sensitivity or specificity of an identified test
- Dahan S, Slater P E, Cooper M et al. Coeliac disease in the Rehovot-Ashdod region of Israel: incidence and ethnic distribution. *Journal of Epidemiology and Community Health* 1984;38(1):58-60. Not sensitivity or specificity of an identified test
- Dahele A, Ghosh S. Vitamin B12 deficiency in untreated celiac disease. *American Journal of Gastroenterology* 2001;96(3):745-750. Not sensitivity or specificity of an identified test
- Dahele Anna, Aldhous Marian C, Kingstone Kathleen et al. Gut mucosal immunity to tissue transglutaminase in untreated celiac disease and other gastrointestinal disorders. *Digestive Diseases and Sciences* 2002;47(10):2325-2335. Improper control group
- Dahlqvist A, Lindberg T, Meeuwisse G et al. Intestinal dipeptidases and disaccharidases in children with malabsorption. *Acta Paediatrica Scandinavica* 1970;59(6):621-630. Not sensitivity or specificity of an identified test
- Dahlqvist G. Celiac disease and insulin-dependent diabetes mellitus--no proof for a causal association. *Acta Paediatr* 1995;84(12):1337-1338. Not sensitivity or specificity of an identified test
- Dallabrida S M, Falls L A, Farrell D H. Factor XIIIa supports microvascular endothelial cell adhesion and inhibits capillary tube formation in fibrin. *Blood* 2000;95(8):2586-2592. Not sensitivity or specificity of an identified test
- Damoiseaux Jan G M C, Bouten Bas, Linders Annick M L W et al. Diagnostic value of anti-Saccharomyces cerevisiae and antineutrophil cytoplasmic antibodies for inflammatory bowel disease: high prevalence in patients with celiac disease. *Journal of Clinical Immunology* 2002;22(5):281-288. Not sensitivity or specificity of an identified test
- Damoiseaux J G M C, Tervaert J W C. Celiac disease: the role of (auto)antibody detection in diagnosis and follow-up. *Netherlands Journal of Medicine* 2002;60(7):303-304. Not sensitivity or specificity of an identified test
- Dandalides S M, Carey W D, Petras R et al. Endoscopic small bowel mucosal biopsy: a controlled trial evaluating forceps size and biopsy location in the diagnosis of normal and abnormal mucosal architecture. *Gastrointestinal Endoscopy* 1989;35(3):197-200. Not sensitivity or specificity of an identified test
- Danielsson L, Stenhammar L, Astrom E. Is gluten challenge necessary for the diagnosis of coeliac disease in young children?. *Scandinavian Journal of Gastroenterology* 1990;25(9):957-960. Not sensitivity or specificity of an identified test

- Dardik R, Shenkman B, Tamarin I et al. Factor XIII mediates adhesion of platelets to endothelial cells through alpha(v)beta(3) and glycoprotein IIb/IIIa integrins. *Thrombosis Research* 2002;105(4):317-323. Not sensitivity or specificity of an identified test
- Darke C, Winkler S, Guttridge M G et al. Molecular, serological and population studies of the alleles and products of HLA-B\*41. *Exp Clin Immunogenet* 1999;16(3):139-149. Not sensitivity or specificity of an identified test
- Datta M, Shtauvere-Brameus A, Gupta V et al. Autoimmune diabetes in 26 villages outside Madras. *Ann New York Acad Sci* 2002;958(-):285-288. Not sensitivity or specificity of an identified test
- Daum S, Bauer U, Foss H D et al. Increased expression of mRNA for matrix metalloproteinases-1 and -3 and tissue inhibitor of metalloproteinases-1 in intestinal biopsy specimens from patients with coeliac disease. *Gut* 1999;44(1):17-25. Not sensitivity or specificity of an identified test
- Daum S, Bauer U, Foss H D et al. Expression of matrix metalloprotease-1 and collagen I mRNA in biopsies from patients with celiac disease. *Annals of the New York Academy of Sciences* 1998;859:254-257. Not sensitivity or specificity of an identified test
- Daum S, Weiss D, Hummel M et al. Frequency of clonal intraepithelial T lymphocyte proliferations in enteropathy-type intestinal T cell lymphoma, coeliac disease, and refractory sprue. *Gut* 2001;49(6):804-812. Not sensitivity or specificity of an identified test
- Dausset J. Biologic role of the HLA system. HLA complex in human biology in the light of associations with disease. *Transplantation Proceedings* 1977;9(1):523-529. Not sensitivity or specificity of an identified test
- Dausset J, Hors J. Some contributions of the HL-A complex to the genetics of human diseases. *Transplantation Reviews* 1975;22:44-74. Not sensitivity or specificity of an identified test
- David T J, Ajdukiewicz A B. A family study of coeliac disease. *J Med Genet* 1975;12(1):79-82. Not sensitivity or specificity of an identified test
- Davidson A G, Hassall E G. Screening for celiac disease. *Cmaj - Canadian Medical Association Journal = Journal De L'association Medicale Canadienne* 1997;157(5):547-548. Not sensitivity or specificity of an identified test
- Davies M L, Taylor E J, Gordon C et al. Candidate T cell epitopes of the human La/SSB autoantigen. *Arthritis Rheum* 2002;46(1):209-214. Not sensitivity or specificity of an identified test
- Davies P J A, Cornwell M M, Johnson J D. Studies on the effects of dansylcadaverine and related compounds on receptor-mediated endocytosis in cultured cells. *Diabetes Care* 1984;7(Suppl 1):35-41. Not sensitivity or specificity of an identified test
- Davies P J, Chiocca E A, Stein J P. Retinoid--regulated expression of tissue transglutaminase in normal and leukemic myeloid cells. *Advances in Experimental Medicine and Biology* 1988;231:63-71. Not sensitivity or specificity of an identified test
- Davies P J, Murtaugh M P, Moore W T et al. Retinoic acid-induced expression of tissue transglutaminase in human promyelocytic leukemia (HL-60) cells. *Journal of Biological Chemistry* 1985;260(8):5166-5174. Not sensitivity or specificity of an identified test
- Dawood F H, Jabbar A A, Al Mudaris A F et al. Association of HLA antigens with coeliac disease among Iraqi children. *Tissue Antigens* 1981;18(1):35-39. Not sensitivity or specificity of an identified test
- Dawson D J, Lobley R W, Burrows P C. Lactose digestion by human jejunal biopsies: The relationship between hydrolysis and absorption. *Gut* 1986;27(5):521-527. Not sensitivity or specificity of an identified test
- Dawson D J, Lobley R W, Burrows P C et al. Changes in jejunal permeability and passive permeation of sugars in intestinal biopsies in coeliac disease and Crohn's disease. *Clinical Science (London, England - 1979)* 1988;74(4):427-431. Not sensitivity or specificity of an identified test
- Dawson J, Bryant M G, Bloom S R et al. Gastrointestinal regulatory peptide storage granule abnormalities in jejunal mucosal diseases. *Gut* 1984;25(6):636-643. Not sensitivity or specificity of an identified test
- Day A S, Cook H B, Whitehead M et al. Anti-endomysial and anti-gliadin antibodies in screening for coeliac disease in children at greater risk of developing coeliac disease. *New Zealand Medical Journal* 2000;113(1119):412-413. Improper control group
- De Block C E, De Leeuw I, Vertommen J J et al. Beta-cell, thyroid, gastric, adrenal and coeliac autoimmunity and HLA-DQ types in type 1 diabetes. *Clinical and Experimental Immunology* 2001;126(2):236-241. Not sensitivity or specificity of an identified test
- De Giacomo C, Gianatti A, Negrini R et al. Lymphocytic gastritis: a positive relationship with coeliac disease. *Journal of Pediatrics* 1994;124(1):57-62. Not sensitivity or specificity of an identified test
- de la, Concha E G, Fernandez-Arquero M et al. Celiac disease and TNF promoter polymorphisms. *Human Immunology* 2000;61(5):513-517. Not sensitivity or specificity of an identified test
- de la, Paz Bettinotti M, Kolek A et al. Polymorphism of the 5' flanking region of the HLA-DQA1 gene in coeliac

disease. *European Journal of Immunogenetics - Official Journal of the British Society for Histocompatibility and Immunogenetics* 1993;20(5):399-407. Not sensitivity or specificity of an identified test

de Launey W E. Letter: Dermatitis herpetiformis and the enteropathy of celiac disease. *Archives of Dermatology* 1974;110(2):301 Not sensitivity or specificity of an identified test

de Lecea A, Ribes-Koninckx C, Polanco I et al. Serological screening (anti-gliadin and anti-endomysium antibodies) for non-overt coeliac disease in children of short stature. *Acta Paediatrica (Oslo, Norway - 1992). Supplement* 1996;41254-55. Improper control group

De Libero G, Rocci M P, Casorati G et al. T cell receptor heterogeneity in gamma delta T cell clones from intestinal biopsies of patients with celiac disease. *Eur J Immunol* 1993;23(2):499-504. Not sensitivity or specificity of an identified test

De Martelaere D, Cassiman J J, van Leuven F. Human osteosarcoma derived clonal variants: Stable differences in cell surface composition. *Cell Biol Int Rep* 1982;6(5):489-494. Not sensitivity or specificity of an identified test

de Pablo R, Vilches C, Moreno M E et al. Distribution of HLA antigens in Spanish Gypsies: a comparative study. *Tissue Antigens* 1992;40(4):187-196. Not sensitivity or specificity of an identified test

de Ritis G, Auricchio S, Jones H W et al. In vitro (organ culture) studies of the toxicity of specific A-gliadin peptides in celiac disease. *Gastroenterology* 1988;94(1):41-49. Not sensitivity or specificity of an identified test

de Sousa J S, Duarte J P. Letter: Fingerprints in childhood coeliac disease. *Archives of Disease in Childhood* 1974;49(1):80 Not sensitivity or specificity of an identified test

De Vizia B, Poggi V, Conenna R et al. Iron absorption and iron deficiency in infants and children with gastrointestinal diseases. *Journal of Pediatric Gastroenterology and Nutrition* 1992;14(1):21-26. Not sensitivity or specificity of an identified test

De Vos M. Articular diseases and the gut: evidence for a strong relationship between spondylarthropathy and inflammation of the gut in man. *Acta Clinica Belgica* 1990;45(1):20-24. Not sensitivity or specificity of an identified test

De Vries N, Van Elderen C, Tijssen H et al. No support for HLA-DQ encoded susceptibility in rheumatoid arthritis. *Arthritis Rheum* 1999;42(8):1621-1627. Not sensitivity or specificity of an identified test

de Freitas I, Sipahi Aytan, Miranda Damiao et al. Celiac disease in Brazilian adults. *Journal of Clinical Gastroenterology* 2002;34(4):430-434. Not sensitivity or

specificity of an identified test

De Laurenzi V, Melino G. Gene disruption of tissue transglutaminase. *Mol Cell Biol* 2001;21(1):148-155. Not sensitivity or specificity of an identified test

De Vitis I, Ghirlanda G, Gasbarrini G. Prevalence of coeliac disease in type I diabetes: a multicentre study. *Acta Paediatrica (Oslo, Norway - 1992). Supplement* 1996;41256-57. Not sensitivity or specificity of an identified test

Dedeoglu Alpaslan, Kubilus James K, Jeitner Thomas M et al. Therapeutic effects of cystamine in a murine model of Huntington's disease. *Journal of Neuroscience - the Official Journal of the Society for Neuroscience* 2002;22(20):8942-8950. Not sensitivity or specificity of an identified test

Defacque H, Commes T, Contet V et al. Differentiation of U937 myelomonocytic cell line by all-trans retinoic acid and 1,25-dihydroxyvitamin D3: synergistic effects on tissue transglutaminase. *Leukemia - Official Journal of the Leukemia Society of America, Leukemia Research Fund, U.k* 1995;9(10):1762-1767. Not sensitivity or specificity of an identified test

deFranchis R, Primignani M, Cipolla M et al. Small-bowel involvement in dermatitis herpetiformis and in linear-IgA bullous dermatosis. *Journal of Clinical Gastroenterology* 1983;5(5):429-436. Not sensitivity or specificity of an identified test

Degli-Esposti M A, Abraham L J, McCann V et al. Ancestral haplotypes reveal the role of the central MHC in the immunogenetics of IDDM. *Immunogenetics* 1992;36(6):345-356. Not sensitivity or specificity of an identified test

Deininger M H, Grote E, Wickboldt J et al. Distinct radiochemotherapy protocols differentially influence cellular proliferation and expression of p53 and Bcl-2 in glioblastoma multiforme relapses in vivo. *J Neuro-Oncol* 2000;48(2):121-129. Not sensitivity or specificity of an identified test

Dejmek A, Hjerpe A. Reactivity of six antibodies in effusions of mesothelioma, adenocarcinoma and mesotheliosis: stepwise logistic regression analysis. *Cytopathology - Official Journal of the British Society for Clinical Cytology* 2000;11(1):8-17. Not sensitivity or specificity of an identified test

Del Rosario M A, Fitzgerald J F, Chong S K et al. Further studies of anti-endomysium and anti-gliadin antibodies in patients with suspected celiac disease. *Journal of Pediatric Gastroenterology and Nutrition* 1998;27(2):191-195. Improper control group

Deller D J, Murrell T G, Blowes R. Jejunal biopsy in malignant disease. *Australasian Annals of Medicine* 1967;16(3):236-241. Not sensitivity or specificity of an identified test

Delprato G R, Petit-Phar M, Maadi A B et al. IgA anti-gliadin antibodies as a possible marker for IgA mesangial glomerulonephritis in adults with primary glomerulonephritis. *New Engl J Med* 1989;320(19):1283-1284. Not sensitivity or specificity of an identified test

DeMarchi M, Borelli I, Olivetti E et al. Two HLA-D and DR alleles are associated with coeliac disease. *Tissue Antigens* 1979;14(4):309-316. Not sensitivity or specificity of an identified test

DeMarchi M, Carbonara A, Ansaldo N et al. HLA-DR3 and DR7 in coeliac disease: immunogenetic and clinical aspects. *Gut* 1983;24(8):706-712. Not sensitivity or specificity of an identified test

Demediuk B. Investigating a patient with a positive test for anti-gliadin antibodies. *Med Today* 2001;2(9):87 Not sensitivity or specificity of an identified test

Demir H, Yuce A, Kocak N et al. Celiac disease in Turkish children: presentation of 104 cases. *Pediatrics International - Official Journal of the Japan Pediatric Society* 2000;42(5):483-487. Improper control group

Dempfle C E, Harenberg J, Hochreuter K et al. Microtiter assay for measurement of factor XIII activity in plasma. *Journal of Laboratory and Clinical Medicine* 1992;119(5):522-528. Not sensitivity or specificity of an identified test

Deng Lei, Shipley Gregory L, Loose-Mitchell David S et al. Coordinate regulation of the production and signaling of retinoic acid by estrogen in the human endometrium. *Journal of Clinical Endocrinology and Metabolism* 2003;88(5):2157-2163. Not sensitivity or specificity of an identified test

Dennis N R, Stokes C R. Risk of coeliac disease in children of patients and effect of HLA genotype. *Journal of Medical Genetics* 1978;15(1):20-22. Not sensitivity or specificity of an identified test

Deprez Pierre H, Sempoux Christine, De Saeger et al. Expression of cholecystokinin in the duodenum of patients with coeliac disease: respective role of atrophy and lymphocytic infiltration. *Clinical Science (London, England - 1979)* 2002;103(2):171-177. Not sensitivity or specificity of an identified test

DerSimonian H, Sugita M, Glass D N et al. Clonal Valpha12.1sup + T cell expansions in the peripheral blood of rheumatoid arthritis patients. *J Exp Med* 1993;177(6):1623-1631. Not sensitivity or specificity of an identified test

Desai H G, Chitre A V, Jeejeebhoy K N. Lactose loading. A simple test for detecting intestinal lactase. Evaluation of different methods. *Gastroenterologia* 1967;108(4):177-188. Not sensitivity or specificity of an identified test

Desjeux J F, Sandler L, Sassier P et al. Acquired and congenital disorders of intestinal transport of D. glucose in children. *Revue Europeenne D'etudes Cliniques Et Biologiques. European Journal of Clinical and Biological Research* 1971;16(4):364-366. Not sensitivity or specificity of an identified test

Desombere I, Van der, Wielen M et al. Immune response of HLA DQ2 positive subjects, vaccinated with HBsAg/AS04, a hepatitis B vaccine with a novel adjuvant. *Vaccine* 2002;20(19-20):2597-2602. Not sensitivity or specificity of an identified test

Devery J M, La Brooy J T, Krillis S et al. Anti-gliadin antibody specificity for gluten-derived peptides toxic to coeliac patients. *Clinical and Experimental Immunology* 1989;76(3):384-390. Not sensitivity or specificity of an identified test

Devi Rampertab S, Fleischauer A, Neugut A I et al. Risk of duodenal adenoma in celiac disease. *Scandinavian Journal of Gastroenterology* 2003;38(8):831-833. Not sensitivity or specificity of an identified test

Devine D V. Novel markers for the detection of platelet activation. *Transfusion Medicine Reviews* 1990;4(2):115-120. Not sensitivity or specificity of an identified test

Devine P L, Birrell G W, Golder J P et al. Screening and monitoring coeliac disease: multicentre trial of a new serum antibody test kit. *Disease Markers* 1994;12(1):71-80. Improper control group

Dewar D, Pereira S P, Ciclitira P J. The pathogenesis of coeliac disease. *Int J Biochem Cell Biol* 2004;36(1):17-24. Not sensitivity or specificity of an identified test

Dezi R, Niveloni S, Sugai E et al. Gluten sensitivity in the rectal mucosa of first-degree relatives of celiac disease patients. *American Journal of Gastroenterology* 1997;92(8):1326-1330. Not sensitivity or specificity of an identified test

Dhar A, Goenka M K. Endomysial antibody and celiac disease. *Indian Journal of Gastroenterology - Official Journal of the Indian Society of Gastroenterology* 1993;12(4):157-158. Not sensitivity or specificity of an identified test

Dhesi I, Marsh M N, Kelly C et al. Morphometric analysis of small intestinal mucosa. II. Determination of lamina propria volumes; plasma cell and neutrophil populations within control and coeliac disease mucosae. *Virchows Archiv.A, Pathological Anatomy and Histopathology* 1984;403(2):173-180. Not sensitivity or specificity of an identified test

Di Mario U, Anastasi E, Mariani P et al. Diabetes-related autoantibodies do appear in children with coeliac disease. *Acta Paediatrica (Oslo, Norway - 1992)* 1992;81(8):593-597. Not sensitivity or specificity of an identified test

- Di Sabatino A, Bertrandi E, Casadei Maldini M et al. Phenotyping of peripheral blood lymphocytes in adult coeliac disease. *Immunology* 1998;95(4):572-576. Not sensitivity or specificity of an identified test
- Di Sabatino A, Ciccocioppo R, D'Alo S et al. Intraepithelial and lamina propria lymphocytes show distinct patterns of apoptosis whereas both populations are active in Fas based cytotoxicity in coeliac disease. *Gut* 2001;49(3):380-386. Not sensitivity or specificity of an identified test
- Di Stefano M, Jorizzo R A, Veneto G et al. Bone mass and metabolism in dermatitis herpetiformis. *Digestive Diseases and Sciences* 1999;44(10):2139-2143. Not sensitivity or specificity of an identified test
- Diamanti A, Maino C, Niveloni S et al. Characterization of gastric mucosal lesions in patients with celiac disease: a prospective controlled study. *American Journal of Gastroenterology* 1999;94(5):1313-1319. Not sensitivity or specificity of an identified test
- Dias J, Unsworth D J, Walker-Smith J A. Antigliadin and antireticulin antibodies in screening for coeliac disease. *Lancet* 1987;2(8551):157-158. Not sensitivity or specificity of an identified test
- Dickey W. Diagnosis of coeliac disease at open-access endoscopy. *Scandinavian Journal of Gastroenterology* 1998;33(6):612-615. Not sensitivity or specificity of an identified test
- Dickey W. Endoscopy, serology and histology in the diagnosis of coeliac disease. *Digestive and Liver Disease - Official Journal of the Italian Society of Gastroenterology and the Italian Association for the Study of the Liver* 2002;34(3):172-174. Not sensitivity or specificity of an identified test
- Dickey W. Epilepsy, cerebral calcifications, and coeliac disease. *Lancet* 1994;344(8937):1585-1586. Not sensitivity or specificity of an identified test
- Dickey W, Hughes D. Disappointing sensitivity of endoscopic markers for villous atrophy in a high-risk population: implications for celiac disease diagnosis during routine endoscopy. *American Journal of Gastroenterology* 2001;96(7):2126-2128. Not sensitivity or specificity of an identified test
- Dickey W, Hughes D. Prevalence of celiac disease and its endoscopic markers among patients having routine upper gastrointestinal endoscopy. *American Journal of Gastroenterology* 1999;94(8):2182-2186. Not sensitivity or specificity of an identified test
- Dickey W, McConnell J B. How many hospital visits does it take before celiac sprue is diagnosed?. *Journal of Clinical Gastroenterology* 1996;23(1):21-23. Not sensitivity or specificity of an identified test
- Dickey W, Hughes D F, McMillan S A. Disappearance of endomysial antibodies in treated celiac disease does not indicate histological recovery. *American Journal of Gastroenterology* 2000;95(3):712-714. Not sensitivity or specificity of an identified test
- Dickey W, Hughes D F, McMillan S A. Reliance on serum endomysial antibody testing underestimates the true prevalence of coeliac disease by one fifth. *Scandinavian Journal of Gastroenterology* 2000;35(2):181-183. Unable to extract data
- Dickey W, Kenny B D, McMillan S A et al. Gastric as well as duodenal biopsies may be useful in the investigation of iron deficiency anaemia. *Scandinavian Journal of Gastroenterology* 1997;32(5):469-472. Not sensitivity or specificity of an identified test
- Dickey W, McMillan S A, Callender M E. High prevalence of celiac sprue among patients with primary biliary cirrhosis. *Journal of Clinical Gastroenterology* 1997;25(1):328-329. Not sensitivity or specificity of an identified test
- Dickey W, McMillan S A, Hughes D F. Identification of coeliac disease in primary care. *Scandinavian Journal of Gastroenterology* 1998;33(5):491-493. Not sensitivity or specificity of an identified test
- Dickey W, McMillan S A, Bharucha C et al. Antigliadin antibodies in blood donors in Northern Ireland. *European Journal of Gastroenterology & Hepatology* 1992;4(9):739-741. Not sensitivity or specificity of an identified test
- Dickey W, McMillan S A, McCrum E E et al. Association between serum levels of total IgA and IgA class endomysial and antigliadin antibodies: implications for coeliac disease screening. *European Journal of Gastroenterology & Hepatology* 1997;9(6):559-562. Improper control group
- Dickey W, Stewart F, Nelson J et al. Screening for coeliac disease as a possible maternal risk factor for neural tube defect. *Clinical Genetics* 1996;49(2):107-108. Not sensitivity or specificity of an identified test
- Dickey William. Low serum vitamin B12 is common in coeliac disease and is not due to autoimmune gastritis. *European Journal of Gastroenterology & Hepatology* 2002;14(4):425-427. Not sensitivity or specificity of an identified test
- Dieterich W, Ehnis T, Bauer M et al. Identification of tissue transglutaminase as the autoantigen of celiac disease. *Nature Medicine* 1997;3(7):797-801. Not sensitivity or specificity of an identified test
- Dieterich W, Esslinger B, Schuppan D. Pathomechanisms in celiac disease. *Int Arch Allergy Immunol* 2003;132(2):98-108. Not sensitivity or specificity of an identified test
- Dieterich W, Laag E, Bruckner-Tuderman L et al.

- Antibodies to tissue transglutaminase as serologic markers in patients with dermatitis herpetiformis. *Journal of Investigative Dermatology* 1999;113(1):133-136. Not sensitivity or specificity of an identified test
- Dieterich W, Laag E, Schopper H et al. Autoantibodies to tissue transglutaminase as predictors of celiac disease. *Gastroenterology* 1998;115(6):1317-1321. Improper control group
- Dieterich W, Storch W B, Schuppan D. Serum antibodies in celiac disease. *Clinical Laboratory* 2000;46(7-8):361-364. Review article
- Dieterich W, Trapp D, Esslinger B et al. Autoantibodies of patients with coeliac disease are insufficient to block tissue transglutaminase activity. *Gut* 2003;52(11):1562-1566. Not sensitivity or specificity of an identified test
- Dieye A, Diaw M L, Rogier C et al. HLA-A, -B, -C, -DR, -DQ typing in a population group of Senegal: Distribution of HLA antigens and HLA-DRB 1(\*)13 and DRB 1(\*)11 subtyping by PCR using sequence-specific primers (PCR-SSP). *Tissue Antigens* 1996;47(3):194-199. Not sensitivity or specificity of an identified test
- Dinari G, Rosenbach Y, Marcus H et al. IgA anti gliadin antibodies in childhood celiac disease. *Israel Journal of Medical Sciences* 1988;24(6):286-290. Serology <1990
- Dinari G, Zahavi I, Marcus H et al. Placental ferritin in coeliac disease: relation to clinical stage, origin, and possible role in the pathogenesis of malignancy. *Gut* 1991;32(9):999-1003. Not sensitivity or specificity of an identified test
- Dissanayake A S, Truelove S C, Whitehead R. Jejunal mucosal recovery in coeliac disease in relation to the degree of adherence to a gluten-free diet. *Quarterly Journal of Medicine* 1974;43(170):161-185. Not sensitivity or specificity of an identified test
- Dissanayake A S, Truelove S C, Whitehead R. Lack of harmful effect of oats on small-intestinal mucosa in coeliac disease. *British Medical Journal* 1974;4(5938):189-191. Not sensitivity or specificity of an identified test
- Djilali-Saiah I, Benini V, Schmitz J et al. Absence of primary association between DM gene polymorphism and insulin-dependent diabetes mellitus or celiac disease. *Human Immunology* 1996;49(1):22-27. Not sensitivity or specificity of an identified test
- Djilali-Saiah I, Caillat-Zucman S, Schmitz J et al. Polymorphism of antigen processing (TAP, LMP) and HLA class II genes in celiac disease. *Human Immunology* 1994;40(1):8-16. Improper control group
- Djilali-Saiah I, Schmitz J, Harfouch-Hammoud E et al. CTLA-4 gene polymorphism is associated with predisposition to coeliac disease. *Gut* 1998;43(2):187-189. Improper control group
- Djoulah S, Khalil I, Beressi J P et al. The HLA-DRB1\*0405 haplotype is most strongly associated with IDDM in Algerians. *European Journal of Immunogenetics - Official Journal of the British Society for Histocompatibility and Immunogenetics* 1992;19(6):381-389. Not sensitivity or specificity of an identified test
- Dobbins W O, Tomasini J T, Rollins E L. Electron and light microscopic identification of the mast cell of the gastrointestinal tract. *Gastroenterology* 1969;56(2):268-279. Not sensitivity or specificity of an identified test
- Dobru D, Pascu O, Tant cedil et al. The prevalence of coeliac disease at endoscopy units in Romania: Routine biopsies during gastroscopy are mandatory (A multicentre study). *Rom J Gastroenterol* 2003;12(2):97-100. Not sensitivity or specificity of an identified test
- Dohan F C. Schizophrenia, celiac disease, gluten antibodies, and the importance of beta. *Biological Psychiatry* 1981;16(11):1115-1117. Not sensitivity or specificity of an identified test
- Doherty M, Barry R E. Gluten-induced mucosal changes in subjects without overt small-bowel disease. *Lancet* 1981;1(8219):517-520. Not sensitivity or specificity of an identified test
- Dollberg L, Gurevitz M, Freier S. Gastrointestinal mast cells in health, and in coeliac disease and other conditions. *Arch Dis Child* 1980;55(9):702-705. Not sensitivity or specificity of an identified test
- Dolly J O, Fottrell P F. Multiple forms of dipeptidases in normal human intestinal mucosa and in mucosa from children with coeliac disease. *Clinica Chimica Acta* 1969;International Journal of Clinical Chemistry; 26(3):555-558. Not sensitivity or specificity of an identified test
- Dolly J O, Dillon A, Duffy M J et al. Further studies on multiple forms of peptidases in mammalian tissues including intestinal mucosa from children with treated and untreated coeliac disease. *Clinica Chimica Acta* 1971;International Journal of Clinical Chemistry; 31(1):55-62. Not sensitivity or specificity of an identified test
- Dolynchuk K N, Pettigrew N M. Transglutaminase levels in Dupuytren's disease. *Journal of Hand Surgery* 1991;16(5):787-790. Not sensitivity or specificity of an identified test
- Dolynchuk K N, Ziesmann M, Serletti J M. Topical putrescine (Fibrostat) in treatment of hypertrophic scars: phase II study. *Plastic and Reconstructive Surgery* 1996;97(1):117-123. Not sensitivity or specificity of an identified test
- Domenico Sebastiani G, Minisola G, Galeazzi M. HLA class II alleles and genetic predisposition to the antiphospholipid syndrome. *Autoimmun Rev*

- 2003;2(6):387-394. Not sensitivity or specificity of an identified test
- Domschke S, Bloom S R, Adrian T E et al. Abundance of VIP in duodenal mucosa of coeliacs and duodenal ulcer patients. *Peptides* 1984;5(2):411-413. Not sensitivity or specificity of an identified test
- Domschke S, Bloom S R, Adrian T E et al. Coeliac sprue: abnormalities of the hormone profile of gastroduodenal mucosa. *Scandinavian Journal of Gastroenterology.Supplement* 1989;16786-89. Not sensitivity or specificity of an identified test
- Doniach S. The impact of intestinal biopsy on gastroenterology. *Gastroenterology* 1968;54(4):SupplNot sensitivity or specificity of an identified test
- Donner H, Seidl C, Braun J et al. CTLA4 gene haplotypes cannot protect from IDDM in the presence of high-risk HLA DQ8 or DQ2 alleles in German families. *Diabetes* 1998;47(7):1158-1160. Not sensitivity or specificity of an identified test
- Donohoue P A, Guethlein L, Collins M M et al. The HLA-A3,Cw6,B47,DR7 extended haplotypes in salt losing 21-hydroxylase deficiency and in the Old Order Amish: Identical class I antigens and class II alleles with at least two crossover sites in the class III region. *Tissue Antigens* 1995;46(3 I):163-172. Not sensitivity or specificity of an identified test
- Douglas A P, Crabbe P A, Hobbs J R. Immunochemical studies on the serum, intestinal secretions and intestinal mucosa in patients with adult celiac disease and other forms of the celiac syndrome. *Gastroenterology* 1970;59(3):414-425. Not sensitivity or specificity of an identified test
- Douthwaite J A, Johnson T S, Haylor J L et al. Effects of transforming growth factor-beta1 on renal extracellular matrix components and their regulating proteins. *Journal of the American Society of Nephrology - Jasn* 1999;10(10):2109-2119. Not sensitivity or specificity of an identified test
- Douvin C, Simon D, Charles M-A et al. Hepatitis B vaccination in diabetic patients: Randomized trial comparing recombinant vaccines containing and not containing pre-S2 antigen. *Diabetes Care* 1997;20(2):148-151. Not sensitivity or specificity of an identified test
- Drago S, Di Piero M, Catassi C et al. Recent developments in the pathogenesis, diagnosis and treatment of celiac disease. *Expert Opin Ther Pat* 2002;12(1):45-51. Not sensitivity or specificity of an identified test
- Drossman D A. Irritable bowel syndrome: how far do you go in the workup?. *Gastroenterology* 2001;121(6):1512-1515. Not sensitivity or specificity of an identified test
- Drover S, Karr R W, Fu X T et al. Analysis of monoclonal antibodies specific for unique and shared determinants on HLA-DR4 molecules. *Human Immunology* 1994;40(1):51-60. Not sensitivity or specificity of an identified test
- Drukker A, Goldstein R, Maer D M et al. Disaccharidase activity in the rectal mucosa. *Israel Journal of Medical Sciences* 1972;8(4):502-507. Not sensitivity or specificity of an identified test
- Drut R, Rua E C. The histopathology of pediatric celiac disease: order must prevail out of chaos. *International Journal of Surgical Pathology* 2001;9(4):261-264. Not sensitivity or specificity of an identified test
- Duggan J M. Recent developments in our understanding of adult coeliac disease. *Medical Journal of Australia* 1997;166(6):312-315. Not sensitivity or specificity of an identified test
- Dugoujon J M, Cambon-Thomsen A. Immunoglobulin allotypes (GM and KM) and their interactions with HLA antigens in autoimmune diseases: a review. *Autoimmunity* 1995;22(4):245-260. Not sensitivity or specificity of an identified test
- Dumic M, Mardesic D, Plavsic V et al. Coincidence of pseudohypoadosteronism with gluten-enteropathy. *Journal of Endocrinological Investigation* 1984;7(4):395-398. Not sensitivity or specificity of an identified test
- Duncan A, Park R P, Lee F D et al. A retrospective assessment of the clinical value of jejunal disaccharidase analysis. *Scandinavian Journal of Gastroenterology* 1994;29(12):1111-1116. Not sensitivity or specificity of an identified test
- Dutz W, Asvadi S, Sadri S et al. Intestinal lymphoma and sprue: a systematic approach. *Gut* 1971;12(10):804-810. Not sensitivity or specificity of an identified test
- Duvic M, Nelson D C, Annarella M et al. Keratinocyte transglutaminase expression varies in squamous cell carcinomas. *Journal of Investigative Dermatology* 1994;102(4):462-469. Not sensitivity or specificity of an identified test
- Dvorcakova M, Macejova D, Pallet V et al. Transglutamines and endocrine system (minireview). *Endocrine Regulations* 2002;36(1):31-36. Not sensitivity or specificity of an identified test
- Dwinell M B, Kagnoff M F. Mucosal immunity. *Curr Opin Gastroenterol* 1999;15(1):33-38. Not sensitivity or specificity of an identified test
- Dyduch A, Karczewska K, Grzybek H et al. Transmission electron microscopy of microvilli of intestinal epithelial cells in celiac disease in remission and transient gluten enteropathy in children after a gluten-free diet. *Journal of Pediatric Gastroenterology and Nutrition* 1993;16(3):269-272. Not sensitivity or specificity of an identified test

- Eade O E, Lloyd R S, Lang C et al. IgA and IgG reticulin antibodies in coeliac and non-coeliac patients. *Gut* 1977;18(12):991-993. Not sensitivity or specificity of an identified test
- Eckert R L, Welter J F. Epidermal keratinocytes - genes and their regulation. *Cell Death Differ* 1996;3(4):373-383. Not sensitivity or specificity of an identified test
- Ectors N. Infectious disorders of the duodenum: MALADIES INFECTIEUSES DU DUODENUM. *Acta Endosc* 2002;32(2):133-156. Not sensitivity or specificity of an identified test
- Egan C A, O'Loughlin S, Gormally S et al. Dermatitis Herpetiformis: a review of fifty-four patients. *Irish Journal of Medical Science* 1997;166(4):241-244. Not sensitivity or specificity of an identified test
- Egyud L G, Lipinski B. Significance of fibrin formation and dissolution in the pathogenesis and treatment of cancer. *Medical Hypotheses* 1991;36(4):336-340. Not sensitivity or specificity of an identified test
- Ehrmann Jiri, Kolek Antonin, Kod'ousek Rostislav et al. Immunohistochemical study of the apoptotic mechanisms in the intestinal mucosa during children's coeliac disease. *Virchows Archiv - an International Journal of Pathology* 2003;442(5):453-461. Not sensitivity or specificity of an identified test
- Eichler I, Frisch H, Granditsch G. Growth failure and insulin-like growth factor (IGF-I) in childhood coeliac disease. *Klinische Wochenschrift* 1991;69(18):825-829. Not sensitivity or specificity of an identified test
- Eiermann T H, Vejbaesya S, Prestel H et al. Association and linkage of human leukocyte antigens with psoriasis - Revisited. *Infusther Transfusionsmed* 2002;29(6):326-330. Not sensitivity or specificity of an identified test
- Eiras P, Roldan E, Camarero C et al. Flow cytometry description of a novel CD3-/CD7+ intraepithelial lymphocyte subset in human duodenal biopsies: potential diagnostic value in coeliac disease. *Cytometry - the Journal of the Society for Analytical Cytology* 1998;34(2):95-102. Not sensitivity or specificity of an identified test
- Ejderhamn J, Samuelson K, Strandvik B. Serum primary bile acids in the course of coeliac disease in children. *Journal of Pediatric Gastroenterology and Nutrition* 1992;14(4):443-449. Not sensitivity or specificity of an identified test
- Ek J, Albrechtsen D, Solheim B G et al. Strong association between the HLA-Dw3-related B cell alloantigen -DRw3 and coeliac disease. *Scandinavian Journal of Gastroenterology* 1978;13(2):229-233. Not sensitivity or specificity of an identified test
- el Alaoui S, Legastelois S, Roch A M et al. Transglutaminase activity and N epsilon (gamma glutamyl) lysine isopeptide levels during cell growth: an enzymic and immunological study. *International Journal of Cancer.Journal International Du Cancer* 1991;48(2):221-226. Not sensitivity or specificity of an identified test
- El Gabalawy H S, Goldbach-Mansky R, Smith D et al. Association of HLA alleles and clinical features in patients with synovitis of recent onset. *Arthritis Rheum* 1999;42(8):1696-1705. Not sensitivity or specificity of an identified test
- el Salhy M. The nature and implication of intestinal endocrine cell changes in coeliac disease. *Histology and Histopathology* 1998;13(4):1069-1075. Not sensitivity or specificity of an identified test
- Elewaut A, Dacremont G, Robberecht E et al. IgA isotyping of anti gliadin antibodies. A possible clue for a less invasive diagnosis of coeliac disease. *Clinica Chimica Acta* 1989;International Journal of Clinical Chemistry; 183(3):285-294. Serology <1990
- Elia C, Carneiro A J, Carvalho A T P et al. Small intestinal morphology in dermatitis herpetiformis: Experience of the Federal University Hospital of Rio de Janeiro, Brazil. *An Bras Dermatol* 1998;73(2):87-90. Not sensitivity or specificity of an identified test
- Eliakim R, Heyman S, Kornberg A. Celiac disease and keratoconjunctivitis. Occurrence with thrombocytopenic purpura. *Archives of Internal Medicine* 1982;142(5):1037 Not sensitivity or specificity of an identified test
- Ellis A. The genetic epidemiology of coeliac disease. *Genetic Epidemiology.Supplement* 1986;1267-269. Not sensitivity or specificity of an identified test
- Ellis A, Taylor C J, Dillon-Remmy M et al. HLA-DR typing in coeliac disease: evidence for genetic heterogeneity. *British Medical Journal (Clinical Research Ed.)* 1984;289(6458):1571-1573. Not sensitivity or specificity of an identified test
- Ellis H J, Ciclitira P J. In vivo gluten challenge in coeliac disease. *Canadian Journal of Gastroenterology = Journal Canadien De Gastroenterologie* 2001;15(4):243-247. Not sensitivity or specificity of an identified test
- Ellis H J, Pollock E L, Engel W et al. Investigation of the putative immunodominant T cell epitopes in coeliac disease. *Gut* 2003;52(2):212-217. Not sensitivity or specificity of an identified test
- Elmes M E, Jones J G, Stanton M R. Changes in the Paneth cell population of human small intestine assessed by image analysis of the secretory granule area. *Journal of Clinical Pathology* 1983;36(8):867-872. Not sensitivity or specificity of an identified test
- Elms M J, Bunce I H, Bundesen P G et al. Rapid detection of cross-linked fibrin degradation products in plasma using

- monoclonal antibody-coated latex particles. *American Journal of Clinical Pathology* 1986;85(3):360-364. Not sensitivity or specificity of an identified test
- Elsasser H P, MacDonald R, Dienst M et al. Characterization of a transglutaminase expressed in human pancreatic adenocarcinoma cells. *European Journal of Cell Biology* 1993;61(2):321-328. Not sensitivity or specificity of an identified test
- Enderlin V, Alfos S, Pallet V et al. Aging decreases the abundance of retinoic acid (RAR) and triiodothyronine (TR) nuclear receptor mRNA in rat brain: Effect of the administration of retinoids. *Febs Lett* 1997;412(3):629-632. Not sensitivity or specificity of an identified test
- Enderlin V, Pallet V, Alfos S et al. Age-related decreases in mRNA for brain nuclear receptors and target genes are reversed by retinoic acid treatment. *Neurosci Lett* 1997;229(2):125-129. Not sensitivity or specificity of an identified test
- Engstrom J, Hellstrom K. Microflora of the small intestine and the incidence of liver disease, steatorrhoea, and indicanuria in patients subjected to partial gastrectomy. *Acta Chirurgica Scandinavica* 1973;139(6):539-545. Not sensitivity or specificity of an identified test
- Engstrom J, Hellstrom K, Lundh G et al. Microflora of small intestine, incidence of steatorrhoea and indicanuria before and after conversion of billroth II to billroth I type of gastric resection. *Acta Chirurgica Scandinavica* 1973;139(6):546-550. Not sensitivity or specificity of an identified test
- Engstrom P E, Sundin U, Lavo B et al. Class and subclass-associated specificity differences of anti-gliadin antibodies from mucosa and serum. *Immunology* 1992;77(4):604-608. Not sensitivity or specificity of an identified test
- Ensari A, Marsh M N, Loft D E et al. Morphometric analysis of intestinal mucosa. V. Quantitative histological and immunocytochemical studies of rectal mucosae in gluten sensitivity. *Gut* 1993;34(9):1225-1229. Not sensitivity or specificity of an identified test
- Ensari A, Marsh M N, Morgan S et al. Diagnosing coeliac disease by rectal gluten challenge: a prospective study based on immunopathology, computerized image analysis and logistic regression analysis. *Clinical Science (London, England - 1979)* 2001;101(2):199-207. Not sensitivity or specificity of an identified test
- Eriksson M-O, Hagforsen E, Lundin I P et al. Palmoplantar pustulosis: A clinical and immunohistological study. *Br J Dermatol* 1998;138(3):390-398. Not sensitivity or specificity of an identified test
- Erkan T, Kutlu T, Yilmaz E et al. Human leukocyte antigens in Turkish pediatric celiac patients. *Turkish Journal of Pediatrics* 1999;41(2):181-188. Improper control group
- Ermacorà E, Prampolini L, Tribbia G. Long-term follow-up of dermatitis herpetiformis in children. *J Am Acad Dermatol* 1986;15(1):24-30. Not sensitivity or specificity of an identified test
- Ertem D, Tuney D, Baloglu H et al. Superior mesenteric artery blood flow in children with celiac disease. *Journal of Pediatric Gastroenterology and Nutrition* 1998;26(2):140-145. Not sensitivity or specificity of an identified test
- Esposito C, Lombardi M L, Ruocco V et al. Implication of tissue transglutaminase and desmoplakin in cell adhesion mechanism in human epidermis. *Molecular and Cellular Biochemistry* 2000;206(1-2):57-65. Not sensitivity or specificity of an identified test
- Esposito C, Paparo F, Caputo I et al. Anti-tissue transglutaminase antibodies from coeliac patients inhibit transglutaminase activity both in vitro and in situ. *Gut* 2002;51(2):177-181. Not sensitivity or specificity of an identified test
- Esposito Carla, Marra Monica, Giuberti Gaia et al. Ubiquitination of tissue transglutaminase is modulated by interferon alpha in human lung cancer cells. *Biochemical Journal* 2003;370(Pt 1):205-212. Not sensitivity or specificity of an identified test
- Esposito Carla, Paparo Francesco, Caputo Ivana et al. Expression and enzymatic activity of small intestinal tissue transglutaminase in celiac disease. *American Journal of Gastroenterology* 2003;98(8):1813-1820. Not sensitivity or specificity of an identified test
- Esterre P, Risteli L, Ricard-Blum S. Immunohistochemical study of type I collagen turn-over and of matrix metalloproteinases in chromoblastomycosis before and after treatment by terbinafine. *Pathology, Research and Practice* 1998;194(12):847-853. Not sensitivity or specificity of an identified test
- Eterman K P, Nefkens M J J, Van Der et al. Failure to detect specific gluten antigens associated with the immune aggregates in the skin in dermatitis herpetiformis. *Arch Dermatol Res* 1977;260(3):247-252. Not sensitivity or specificity of an identified test
- Euler A R, Ament M E. Celiac sprue and Crohn's disease: an association causing severe growth retardation. *Gastroenterology* 1977;72(4 \$U1):729-731. Not sensitivity or specificity of an identified test
- Evans D J, Patey A L. Chemistry of wheat proteins and the nature of the damaging substances. *Clinics in Gastroenterology* 1974;3(1):199-211. Not sensitivity or specificity of an identified test
- Evans Mark J, Harris Heather A, Miller Chris P et al. Estrogen receptors alpha and beta have similar activities in multiple endothelial cell pathways. *Endocrinology* 2002;143(10):3785-3795. Not sensitivity or specificity of an identified test

an identified test

Evans P C, Smith S, Hirschfield G et al. Recipient HLA-DR3, tumour necrosis factor-alpha promoter allele-2 (tumour necrosis factor-2) and cytomegalovirus infection are interrelated risk factors for chronic rejection of liver grafts. *J Hepatol* 2001;34(5):711-715. Not sensitivity or specificity of an identified test

Fabbi M, Marimpietri D, Martini S et al. Tissue transglutaminase is a caspase substrate during apoptosis. Cleavage causes loss of transamidating function and is a biochemical marker of caspase 3 activation. *Cell Death and Differentiation* 1999;6(10):992-1001. Not sensitivity or specificity of an identified test

Fabiani E, Catassi C. The serum IgA class anti-tissue transglutaminase antibodies in the diagnosis and follow up of coeliac disease. Results of an international multi-centre study. International Working Group on Eu-tTG. *European Journal of Gastroenterology & Hepatology* 2001;13(6):659-665. Improper control group

Fabiani E, Catassi C, De Rosa S et al. The serum IgA class anti-tissue transglutaminase antibodies in the diagnosis and follow up of coeliac disease. Results of an international multi-centre study. *Pediatrics* 2001;21(10):13-21. Improper control group

Fabiani E, Catassi C, Villari A et al. Dietary compliance in screening-detected coeliac disease adolescents. *Acta Paediatrica (Oslo, Norway - 1992). Supplement* 1996;41265-67. Not sensitivity or specificity of an identified test

Fabiani E, Taccari L M, Ratsch I M et al. Compliance with gluten-free diet in adolescents with screening-detected celiac disease: a 5-year follow-up study. *Journal of Pediatrics* 2000;136(6):841-843. Not sensitivity or specificity of an identified test

Fabris L, Strazzabosco M, Crosby H A et al. Characterization and isolation of ductular cells coexpressing neural cell adhesion molecule and Bcl-2 from primary cholangiopathies and ductal plate malformations. *American Journal of Pathology* 2000;156(5):1599-1612. Not sensitivity or specificity of an identified test

Failla P, Ruberto C, Pagano M C et al. Celiac disease in Down Syndrome with HLA serological and molecular studies. *Journal of Pediatric Gastroenterology and Nutrition* 1996;23(3):303-306. Improper control group

Fairman M J, Scott B B, Toothill C et al. Jejunal mucosal gamma glutamyl transferase activity in coeliac disease. *Gut* 1977;18(6):484-487. Not sensitivity or specificity of an identified test

Fais S, Maiuri L, Pallone F et al. Gliadin induced changes in the expression of MHC-class II antigens by human small intestinal epithelium. Organ culture studies with coeliac disease mucosa. *Gut* 1992;33(4):472-475. Not sensitivity or

specificity of an identified test

Falchuk K R, Falchuk Z M. Selective immunoglobulin a deficiency, ulcerative colitis, and gluten-sensitive enteropathy--a unique association. *Gastroenterology* 1975;69(2):503-506. Not sensitivity or specificity of an identified test

Falchuk Z M. Update on gluten-sensitive enteropathy. *American Journal of Medicine* 1979;67(6):1085-1096. Not sensitivity or specificity of an identified test

Falchuk Z M. Gluten-sensitive enteropathy. *Clin Gastroenterol* 1983;12(2):475-494. Not sensitivity or specificity of an identified test

Falchuk Z M, Strober W. Gluten-sensitive enteropathy: synthesis of antigliadin antibody in vitro. *Gut* 1974;15(12):947-952. Not sensitivity or specificity of an identified test

Falchuk Z M, Gebhard R L, Sessoms C et al. An in vitro model of gluten-sensitive enteropathy. Effect of gliadin on intestinal epithelial cells of patients with gluten-sensitive enteropathy in organ culture. *Journal of Clinical Investigation* 1974;53(2):487-500. Not sensitivity or specificity of an identified test

Falchuk Z M, Katz A J, Shwachman H et al. Gluten-sensitive enteropathy: genetic analysis and organ culture study in 35 families. *Scandinavian Journal of Gastroenterology* 1978;13(7):839-843. Not sensitivity or specificity of an identified test

Falchuk Z M, Nelson D L, Katz A J et al. Gluten-sensitive enteropathy. Influence of histocompatibility type on gluten sensitivity in vitro. *Journal of Clinical Investigation* 1980;66(2):227-233. Not sensitivity or specificity of an identified test

Falk M C, NG G, Zhang G Y et al. Predominance of T cell receptor V delta 3 in small bowel biopsies from coeliac disease patients. *Clinical and Experimental Immunology* 1994;98(1):78-82. Not sensitivity or specificity of an identified test

Fallstrom S P, Kristiansson B, Ryd W. Histological studies of small-intestinal biopsies from infants with low rate of weight gain. *Acta Pathol Microbiol Scand Sect A Pathol* 1981;89(6):431-438. Not sensitivity or specificity of an identified test

Falorni A, Laureti S. Adrenal autoimmunity and correlation with adrenal dysfunction. *Endocrinologist* 2000;10(3):145-154. Not sensitivity or specificity of an identified test

Falorni A, Kockum I, Sanjeevi C B et al. Pathogenesis of insulin-dependent diabetes mellitus. *Bailliere's Clin Endocrinol Metab* 1995;9(1):25-46. Not sensitivity or specificity of an identified test

Falth-Magnusson K, Jansson G, Stenhammar L et al.

- Intestinal permeability assessed with different-sized polyethylene glycols in children undergoing small-intestinal biopsy for suspected celiac disease. *Scandinavian Journal of Gastroenterology* 1989;24(1):40-46. Not sensitivity or specificity of an identified test
- Farkas G, Buday L, Csermely P et al. Lipocortin I is not accessible for protein kinase C bound to the cytoplasmic surface of the plasma membrane in streptolysin-O-permeabilized pig granulocytes. *Biochimica Et Biophysica Acta* 1994;1220(3):315-322. Not sensitivity or specificity of an identified test
- Farre C, Esteve M, Curcoy A et al. Hypertransaminasemia in pediatric celiac disease patients and its prevalence as a diagnostic clue. *American Journal of Gastroenterology* 2002;97(12):3176-3181. Not sensitivity or specificity of an identified test
- Farre C, Humbert P, Vilar P et al. Serological markers and HLA-DQ2 haplotype among first-degree relatives of celiac patients. *Catalonian Coeliac Disease Study Group. Digestive Diseases and Sciences* 1999;44(11):2344-2349. Improper control group
- Farrell R J, Kelly C P. Diagnosis of celiac sprue. *American Journal of Gastroenterology* 2001;96(12):3237-3246. Review article
- Farrell Richard J, Kelly Ciaran P. Celiac sprue. *New England Journal of Medicine* 2002;346(3):180-188. Not sensitivity or specificity of an identified test
- Farstad I N, Johansen F-E, Vlatkovic L et al. Heterogeneity of intraepithelial lymphocytes in refractory sprue: Potential implications of CD30 expression. *Gut* 2002;51(3):372-378. Not sensitivity or specificity of an identified test
- Farthing M J, Rees L H, Dawson A M. Male gonadal function in coeliac disease: III. Pituitary regulation. *Clinical Endocrinology* 1983;19(6):661-671. Not sensitivity or specificity of an identified test
- Fasano A. Tissue transglutaminase: the Holy Grail for the diagnosis of celiac disease, at last?. *Journal of Pediatrics* 1999;134(2):134-135. Review article
- Fasano A. Where have all the American celiacs gone?. *Acta paediatrica (Oslo, Norway : 1992).Supplement.* 1996;41220-24. Not sensitivity or specificity of an identified test
- Fasano A, Catassi C. Current approaches to diagnosis and treatment of celiac disease: an evolving spectrum. *Gastroenterology* 2001;120(3):636-651. Not sensitivity or specificity of an identified test
- Fasano Alessio. Celiac disease--how to handle a clinical chameleon. *New England Journal of Medicine* 2003;348(25):2568-2570. Not sensitivity or specificity of an identified test
- Fasano Alessio, Berti Irene, Gerarduzzi Tania et al. Prevalence of celiac disease in at-risk and not-at-risk groups in the United States: a large multicenter study. *Archives of Internal Medicine* 2003;163(3):286-292. Not sensitivity or specificity of an identified test
- Faulkner-Hogg K B, Selby W S, Loblay R H. Dietary analysis in symptomatic patients with coeliac disease on a gluten-free diet: the role of trace amounts of gluten and non-gluten food intolerances. *Scandinavian Journal of Gastroenterology* 1999;34(8):784-789. Not sensitivity or specificity of an identified test
- Fausa D, Thune P. Gastrointestinal dysfunction in dermatitis herpetiformis. *Scandinavian Journal of Gastroenterology* 1974;9(27 sup.):No 27 Not sensitivity or specificity of an identified test
- Fausa O, Eeg Larsen T, Husby G et al. Gastrointestinal investigations in dermatitis herpetiformis. *Acta Derm-Venerol* 1975;55(3):203-206. Not sensitivity or specificity of an identified test
- Favatier F, Bornman L, Hightower L E et al. Variation in hsp gene expression and Hsp polymorphism: Do they contribute to differential disease susceptibility and stress tolerance?. *Cell Stress Chaperones* 1997;2(3):141-155. Not sensitivity or specificity of an identified test
- Fedrick J A, Pandey J P, Verkasalo M et al. Immunoglobulin allotypes and the immune response to wheat gliadin in a Finnish population with celiac disease. *Experimental and Clinical Immunogenetics* 1985;2(4):185-190. Not sensitivity or specificity of an identified test
- Feeley K M, Heneghan M A, Stevens F M et al. Lymphocytic gastritis and coeliac disease: evidence of a positive association. *Journal of Clinical Pathology* 1998;51(3):207-210. Not sensitivity or specificity of an identified test
- Feighery C. Coeliac disease. *Br Med J* 1999;319(7204):236-239. Not sensitivity or specificity of an identified test
- Feighery C. Coeliac disease, auto-immunity and thyroid disease. *Ital J Gastroenterol Hepatol* 1999;31(4):288-289. Not sensitivity or specificity of an identified test
- Feighery C F. Coeliac disease: How much of what is toxic to whom?. *Gut* 1998;43(2):164-165. Not sensitivity or specificity of an identified test
- Feighery C, Abuzakouk M, Liddy C et al. Endomysial antibody detection using human umbilical cord tissue as substrate: reactivity of cells in Wharton's jelly. *British Journal of Biomedical Science* 1998;55(2):107-110. Improper control group
- Feighery C, Weir DG, Whelan A et al. Diagnosis of gluten-sensitive enteropathy: is exclusive reliance on histology

- appropriate? *Eur J Gastroenterol Hepatol* 1998; 10(11):919-925. Unable to obtain full article
- Feighery C, Whelan A, Weir D G. Endomysium: Autoantigen in coeliac disease. *European Journal of Gastroenterology & Hepatology* 1997;9(7):655-656. Not sensitivity or specificity of an identified test
- Feighery L, Collins C, Feighery C et al. Anti-transglutaminase antibodies and the serological diagnosis of coeliac disease. *British Journal of Biomedical Science* 2003;60(1):14-18. Not sensitivity or specificity of an identified test
- Feighery L, Lynch S, Kilmartin C et al. Flow-cytometric detection of lactase expression in normal and coeliac intestinal epithelium. *European Journal of Gastroenterology & Hepatology* 2001;13(8):897-902. Not sensitivity or specificity of an identified test
- Feng J F, Rhee S G, Im M J. Evidence that phospholipase delta1 is the effector in the Gh (transglutaminase II)-mediated signaling. *Journal of Biological Chemistry* 1996;271(28):16451-16454. Not sensitivity or specificity of an identified test
- Fennessy M, Metcalfe K, Hitman G A et al. A gene in the HLA class I region contributes to susceptibility to IDDM in the Finnish population. Childhood Diabetes in Finland (DiMe) Study Group. *Diabetologia* 1994;37(9):937-944. Not sensitivity or specificity of an identified test
- Ferfoglia G, Pulitano R, Sategna-Guidetti C. Do dietary antibodies still play a role in the diagnosis and follow-up of coeliac disease? A comparison among different serological tests. *Panminerva Medica* 1995;37(2):55-59. Improper control group
- Ferguson A. Coeliac disease, an eminently treatable condition, may be underdiagnosed in the United States. *American Journal of Gastroenterology* 1997;92(8):1252-1254. Not sensitivity or specificity of an identified test
- Ferguson A. Coeliac disease. *Prescr J* 1997;37(4):206-212. Not sensitivity or specificity of an identified test
- Ferguson A. Coeliac disease research and clinical practice: Maintaining momentum into the twenty-first century. *Bailliere's Clin Gastroenterol* 1995;9(2):395-412. Not sensitivity or specificity of an identified test
- Ferguson A. The immune system and mucosal transformation - Historical perspective. *Digestion* 1990;46(Suppl 2):255-261. Not sensitivity or specificity of an identified test
- Ferguson A. Intraepithelial lymphocytes of the small intestine. Part I: Morphology and experimental immunology of intraepithelial lymphocytes. *Gut* 1977;18(11):921-937. Not sensitivity or specificity of an identified test
- Ferguson A, Kingstone K. Coeliac disease and malignancies. *Acta Paediatrica (Oslo, Norway - 1992). Supplement* 1996;41278-81. Not sensitivity or specificity of an identified test
- Ferguson A, Murray D. Quantitation of intraepithelial lymphocytes in human jejunum. *Gut* 1971;12(12):988-994. Not sensitivity or specificity of an identified test
- Ferguson A, Ziegler K. Intraepithelial lymphocyte mitosis in a jejunal biopsy correlates with intraepithelial lymphocyte count, irrespective of diagnosis. *Gut* 1986;27(6):675-679. Not sensitivity or specificity of an identified test
- Ferguson A, Arranz E, O'Mahony S. Spectrum of expression of intestinal cellular immunity: proposal for a change in diagnostic criteria of celiac disease. *Annals of Allergy* 1993;71(1):29-32. Not sensitivity or specificity of an identified test
- Ferguson A, Arranz E, O'Mahony S. Clinical and pathological spectrum of coeliac disease - active, silent, latent, potential. *Gut* 1993;34(2):150-151. Not sensitivity or specificity of an identified test
- Ferguson A, Blackwell J N, Barnetson R S. Effects of additional dietary gluten on the small-intestinal mucosa of volunteers and of patients with dermatitis herpetiformis. *Scandinavian Journal of Gastroenterology* 1987;22(5):543-549. Not sensitivity or specificity of an identified test
- Ferguson A, Gillett H, Humphreys K et al. Heterogeneity of celiac disease: clinical, pathological, immunological, and genetic. *Annals of the New York Academy of Sciences* 1998;859:112-120. Not sensitivity or specificity of an identified test
- Ferguson A, MacDonald T T, McClure J P et al. Cell-mediated immunity to gliadin within the small-intestinal mucosa in coeliac disease. *Lancet* 1975;1(7912):895-897. Not sensitivity or specificity of an identified test
- Ferguson A, McClure J P, Townley R R. Intraepithelial lymphocyte counts in small intestinal biopsies from children with diarrhoea. *Acta Paediatrica Scandinavica* 1976;65(5):541-546. Unable to extract data
- Ferguson A, Mowat A M, Strobel S et al. T-cell mediated immunity in food allergy. *Annals of Allergy* 1983;51(2 Pt 2):246-248. Not sensitivity or specificity of an identified test
- Ferguson A, Ziegler K, Strobel S. Gluten intolerance (coeliac disease). *Annals of Allergy* 1984;53(6 Pt 2):637-642. Not sensitivity or specificity of an identified test
- Ferguson M M, Wray D, Carmichael H A. Coeliac disease associated with recurrent aphthae. *Gut* 1980;21(3):223-226. Not sensitivity or specificity of an identified test
- Ferguson R, Asquith P, Cooke W T. The cellular infiltrate

of the jejunum in coeliac patients with complicating lymphoma. *Gut* 1974;15(4):338-339. Not sensitivity or specificity of an identified test

Ferguson R, Asquith P, Cooke W T. The jejunal cellular infiltrate in coeliac disease complicated by lymphoma. *Gut* 1974;15(6):458-461. Not sensitivity or specificity of an identified test

Ferguson R, Basu M K, Asquith P et al. Jejunal mucosal abnormalities in patients with recurrent aphthous ulceration. *British Medical Journal* 1976;1(6000):11-13. Not sensitivity or specificity of an identified test

Fernandez L, Fernandez-Arquero M, Gual L et al. Triplet repeat polymorphism in the transmembrane region of the MICA gene in celiac disease. *Tissue Antigens* 2002;59(3):219-222. Not sensitivity or specificity of an identified test

Fernandez N, Hitman G A, Festenstein H et al. Novel HLA class II-associated structural patterns in coeliac disease and type I diabetes. *Clinical and Experimental Immunology* 1988;72(3):362-366. Not sensitivity or specificity of an identified test

Fernandez-Arquero M, Caldes T, Casado E et al. Polymorphism within the HLA-DQB1\*02 promoter associated with susceptibility to coeliac disease. *European Journal of Immunogenetics - Official Journal of the British Society for Histocompatibility and Immunogenetics* 1998;25(1):1-3. Not sensitivity or specificity of an identified test

Fernandez-Arquero M, Figueredo M A, Maluenda C et al. HLA-linked genes acting as additive susceptibility factors in celiac disease. *Human Immunology* 1995;42(4):295-300. Improper control group

Fernandez-Arquero M, Polanco I, Escobar H et al. HLA-DQ alleles and susceptibility to celiac disease in Spanish children. *Tissue Antigens* 1995;45(2):145-147. Improper control group

Fernandez-Calle P, Codoceo R, Polanco I et al. Is an intestinal permeability test a valid marker for slight dietary transgressions in adolescents with coeliac disease?. *Gut* 1993;34(6):774-777. Not sensitivity or specificity of an identified test

Ferrante P, Petronzelli F, Mariani P et al. Oligotyping of Italian celiac patients with the 11th International Histocompatibility Workshop reagents. *Tissue Antigens* 1992;39(1):38-39. Improper control group

Ferreira M, Davies S L, Butler M et al. Endomysial antibody: is it the best screening test for coeliac disease?. *Gut* 1992;33(12):1633-1637. Improper control group

Festenstein H, Nyulassy S. Workshop on HLA and disease. *Transplantation Proceedings* 1979;11(1):1183-1185. Not sensitivity or specificity of an identified test

Festoff B W, Suo Z, Citron B A. Plasticity and stabilization of neuromuscular and CNS synapses: interactions between thrombin protease signaling pathways and tissue transglutaminase. *International Review of Cytology* 2001;211:153-177. Not sensitivity or specificity of an identified test

Festoff B W, Suo Z, Citron B A. Prospects for the pharmacotherapy of amyotrophic lateral sclerosis: Old strategies and new paradigms for the third millennium. *Cns Drugs* 2003;17(10):699-717. Not sensitivity or specificity of an identified test

Fesus L. Transglutaminase-catalyzed protein cross-linking in the molecular program of apoptosis and its relationship to neuronal processes. *Cellular and Molecular Neurobiology* 1998;18(6):683-694. Not sensitivity or specificity of an identified test

Fesus L, Arato G. Quantitation of tissue transglutaminase by a sandwich ELISA system. *Journal of Immunological Methods* 1986;94(1-2):131-136. Not sensitivity or specificity of an identified test

Fesus L, Thomazy V. Searching for the function of tissue transglutaminase: its possible involvement in the biochemical pathway of programmed cell death. *Advances in Experimental Medicine and Biology* 1988;231:119-134. Not sensitivity or specificity of an identified test

Fesus L, Erdei A, Sandor M et al. The influence of tissue transglutaminase on the function of Fc receptors. *Molecular Immunology* 1982;19(1):39-43. Not sensitivity or specificity of an identified test

Fesus L, Falus A, Erdei A et al. Human beta 2-microglobulin is a substrate of tissue transglutaminase: polymerization in solution and on the cell surface. *Journal of Cell Biology* 1981;89(3):706-710. Not sensitivity or specificity of an identified test

Fesus L, Metsis M L, Muszbek L et al. Transglutaminase-sensitive glutamine residues of human plasma fibronectin revealed by studying its proteolytic fragments. *European Journal of Biochemistry / Febs* 1986;154(2):371-374. Not sensitivity or specificity of an identified test

Fesus L, Nagy L, Basilion J P et al. Retinoic acid receptor transcripts in human umbilical vein endothelial cells. *Biochemical and Biophysical Research Communications* 1991;179(1):32-38. Not sensitivity or specificity of an identified test

Fesus L, Tarcsa E, Kedei N et al. Degradation of cells dying by apoptosis leads to accumulation of epsilon(gamma-glutamyl)lysine isodipeptide in culture fluid and blood. *Febs Lett* 1991;284(1):109-112. Not sensitivity or specificity of an identified test

Fesus Laszlo, Piacentini Mauro. Transglutaminase 2: an enigmatic enzyme with diverse functions. *Trends in*

- Biochemical Sciences 2002;27(10):534-539. Not sensitivity or specificity of an identified test
- Feurle G E. Pathophysiology of diarrhea in patients with familial amyloid neuropathy. *Digestion* 1987;36(1):13-17. Not sensitivity or specificity of an identified test
- Fielding J F, Doyle G D. Coeliac disease amongst adolescents previously labelled as coeliacs on clinical grounds. *J Ir Coll Phys Surg* 1978;7(3):89-91. Not sensitivity or specificity of an identified test
- Fine K D. The prevalence of occult gastrointestinal bleeding in celiac sprue. *New England Journal of Medicine* 1996;334(18):1163-1167. Not sensitivity or specificity of an identified test
- Fine K D, Do K, Schulte K et al. High prevalence of celiac sprue-like HLA-DQ genes and enteropathy in patients with the microscopic colitis syndrome. *American Journal of Gastroenterology* 2000;95(8):1974-1982. Improper control group
- Fine K D, Lee E L, Meyer R L. Colonic histopathology in untreated celiac sprue or refractory sprue: is it lymphocytic colitis or colonic lymphocytosis?. *Human Pathology* 1998;29(12):1433-1440. Not sensitivity or specificity of an identified test
- Fine K D, Meyer R L, Lee E L. The prevalence and causes of chronic diarrhea in patients with celiac sprue treated with a gluten-free diet. *Gastroenterology* 1997;112(6):1830-1838. Not sensitivity or specificity of an identified test
- Fine K D, Ogunji F, Saloum Y et al. Celiac sprue: another autoimmune syndrome associated with hepatitis C. *American Journal of Gastroenterology* 2001;96(1):138-145. Not sensitivity or specificity of an identified test
- Finney S, Seale L, Sawyer R T et al. Tridegin, a new peptidic inhibitor of factor XIIIa, from the blood-sucking leech *Haementeria ghilianii*. *Biochemical Journal* 1997;324(Pt 3):797-805. Not sensitivity or specificity of an identified test
- Fischer G F, Mayr W R. Molecular genetics of the HLA complex. *Wiener Klinische Wochenschrift* 2001;113(20-21):814-824. Not sensitivity or specificity of an identified test
- Fitzpatrick K P, Sherman P M, Ipp M et al. Screening for celiac disease in children with recurrent abdominal pain. *Journal of Pediatric Gastroenterology and Nutrition* 2001;33(3):250-252. Not sensitivity or specificity of an identified test
- Fivenson D P, Douglass M C, Nickoloff B J. Cutaneous expression of Thy-1 in mycosis fungoides. *American Journal of Pathology* 1992;141(6):1373-1380. Not sensitivity or specificity of an identified test
- Fladby T, Kampman M T, Loseth S et al. Human leukocyte antigen class I in polymyositis: Leukocyte infiltrates, regeneration, and impulse block. *Muscle Nerve* 1997;20(12):1534-1540. Not sensitivity or specificity of an identified test
- Fleckenstein Burkhard, Molberg Oyvind, Qiao Shuo et al. Gliadin T cell epitope selection by tissue transglutaminase in celiac disease. Role of enzyme specificity and pH influence on the transamidation versus deamidation process. *Journal of Biological Chemistry* 2002;277(37):34109-34116. Not sensitivity or specificity of an identified test
- Fleming S C, Duncan A, Russell R I et al. Measurement of sugar probes in serum: an alternative to urine measurement in intestinal permeability testing. *Clinical Chemistry* 1996;42(3):445-448. Not sensitivity or specificity of an identified test
- Flint A, McCoy J P, Schade W J et al. Cervical carcinoma antigen: distribution in neoplastic lesions of the uterine cervix and comparison to other tumor markers. *Gynecologic Oncology* 1988;30(1):63-70. Not sensitivity or specificity of an identified test
- Floreani A, Betterle C, Baragiotta A et al. Prevalence of celiac disease in primary biliary cirrhosis and of antimitochondrial antibodies in adult coeliac disease patients in Italy. *Digestive and Liver Disease - Official Journal of the Italian Society of Gastroenterology and the Italian Association for the Study of the Liver* 2002;34(4):258-261. Not sensitivity or specificity of an identified test
- Floreani A, Chiaramonte M, Venturini R et al. Antigliadin antibody classes in chronic liver disease. *Italian Journal of Gastroenterology* 1992;24(8):457-460. Not sensitivity or specificity of an identified test
- Floren C H, Alm P. Defective synthesis of apolipoprotein A-I in jejunal mucosa in coeliac disease. *Scandinavian Journal of Gastroenterology* 1988;23(7):856-860. Not sensitivity or specificity of an identified test
- Fluge G, Aksnes L. Autoradiographic localization of a gluten peptide during organ culture of human duodenal mucosa. *Journal of Pediatric Gastroenterology and Nutrition* 1983;2(3):452-458. Not sensitivity or specificity of an identified test
- Fluge G, Aksnes L. Influence of cow's milk proteins and gluten on human duodenal mucosa in organ culture. *Journal of Pediatric Gastroenterology and Nutrition* 1990;11(4):481-488. Not sensitivity or specificity of an identified test
- Fluge G, Aksnes L. Labelling indices after 3H-thymidine incorporation during organ culture of duodenal mucosa in coeliac disease. *Scandinavian Journal of Gastroenterology* 1981;16(7):921-928. Not sensitivity or specificity of an identified test

Fluge G, Aksnes L. Mitotic rate and mitotic time in coeliac and non-coeliac duodenal biopsies maintained in organ culture. *Virchows Archiv.B, Cell Pathology Including Molecular Pathology* 1981;38(2):159-167. Not sensitivity or specificity of an identified test

Fluge G, Aksnes L. Morphological and morphometric assessment of human duodenal biopsies maintained in organ culture. In vitro influences of gluten in coeliac disease. *Scandinavian Journal of Gastroenterology* 1981;16(4):555-567. Not sensitivity or specificity of an identified test

Fluge G, Aksnes L. Quantification of immunoglobulins after organ culture of human duodenal mucosa. *Journal of Pediatric Gastroenterology and Nutrition* 1983;2(1):62-70. Not sensitivity or specificity of an identified test

Fluge G, Andersen K J, Aksnes L et al. Brush border and lysosomal marker enzyme profiles in duodenal mucosa from coeliac patients before and after organ culture. *Scandinavian Journal of Gastroenterology* 1982;17(4):465-472. Not sensitivity or specificity of an identified test

Fluge O, Sletten K, Fluge G et al. In vitro toxicity of purified gluten peptides tested by organ culture. *Journal of Pediatric Gastroenterology and Nutrition* 1994;18(2):186-192. Not sensitivity or specificity of an identified test

Flynn J C, Wan Q, Panos J C et al. Coexpression of susceptible and resistant HLA class II transgenes in murine experimental autoimmune thyroiditis: DQ8 molecules downregulate DR3-mediated thyroiditis. *J Autoimmun* 2002;18(3):213-220. Not sensitivity or specificity of an identified test

Fois A, Vascotto M, Di Bartolo R M et al. Celiac disease and epilepsy in pediatric patients. *Child's Nervous System - Chns - Official Journal of the International Society for Pediatric Neurosurgery* 1994;10(7):450-454. Not sensitivity or specificity of an identified test

Foldes-Papp Zeno, Demel Ulrike, Berry Desiree et al. Tissue transglutaminase antibody determination in celiac disease. Analysis of diagnostic specificity of anti-human IgA-type assays. *Journal of Immunoassay & Immunochemistry* 2002;23(2):211-227. Improper control group

Fontana M, Boldorini R, Zuin G et al. Ultrastructural changes in the duodenal mucosa of HIV-infected children. *Journal of Pediatric Gastroenterology and Nutrition* 1993;17(3):255-259. Not sensitivity or specificity of an identified test

Fonti R, Limite G, Sodano A et al. Sentinel lymph node identification in breast cancer patients. *La Radiologia Medica* 2002;103(4):370-377. Not sensitivity or specificity of an identified test

Fordtran J S, Rector F C, Locklear T W et al. Water and

solute movement in the small intestine of patients with sprue. *Journal of Clinical Investigation* 1967;46(3):287-298. Not sensitivity or specificity of an identified test

Foreman K E, Bacon P E, Hsi E D et al. In situ polymerase chain reaction-based localization studies support role of human herpesvirus-8 as the cause of two AIDS-related neoplasms: Kaposi's sarcoma and body cavity lymphoma. *Journal of Clinical Investigation* 1997;99(12):2971-2978. Not sensitivity or specificity of an identified test

Forget P, Grandfils C, Van Cutsem J L et al. Diamine oxidase in serum and small intestinal biopsy tissue in childhood celiac disease. *Journal of Pediatric Gastroenterology and Nutrition* 1986;5(3):379-383. Not sensitivity or specificity of an identified test

Forgeur A, Willems F, Winand J et al. Natriuretic peptide receptors of type A in human neuroblastomas. *Neuroendocrinology* 1999;70(4):288-294. Not sensitivity or specificity of an identified test

Fornasieri A, Sinico R A, Maldifassi P et al. IgA-antigliadin antibodies in IgA mesangial nephropathy (Berger's disease). *British Medical Journal (Clinical Research Ed.)* 1987;295(6590):78-80. Not sensitivity or specificity of an identified test

Forsberg Gote, Hernell Olle, Melgar Silvia et al. Paradoxical coexpression of proinflammatory and down-regulatory cytokines in intestinal T cells in childhood celiac disease. *Gastroenterology* 2002;123(3):667-678. Not sensitivity or specificity of an identified test

Fotherby K J, Wraight E P, Neale G. 51Cr-EDTA/14C-mannitol intestinal permeability test. Clinical use in screening for coeliac disease. *Scandinavian Journal of Gastroenterology* 1988;23(2):171-177. Not sensitivity or specificity of an identified test

Fotoulaki M, Nousia-Arvanitakis S, Augoustidou-Savvopoulou P et al. Clinical application of immunological markers as monitoring tests in celiac disease. *Digestive Diseases and Sciences* 1999;44(10):2133-2138. Not sensitivity or specificity of an identified test

Fottrell P F. Intestinal peptide transport and hydrolysis in health and disease. *Ir J Med Sci* 1979;148(4):123-134. Not sensitivity or specificity of an identified test

Fraga M, Brousset P, Schlaifer D et al. Bone marrow involvement in anaplastic large cell lymphoma. Immunohistochemical detection of minimal disease and its prognostic significance. *American Journal of Clinical Pathology* 1995;103(1):82-89. Not sensitivity or specificity of an identified test

Fraij B M. GTP hydrolysis by human tissue transglutaminase homologue. *Biochemical and Biophysical Research Communications* 1996;218(1):45-49. Not sensitivity or specificity of an identified test

- Fraj B M, Gonzales R A. Organization and structure of the human tissue transglutaminase gene. *Biochimica Et Biophysica Acta* 1997;1354(1):65-71. Not sensitivity or specificity of an identified test
- Fraj B M, Gonzales R A. A third human tissue transglutaminase homologue as a result of alternative gene transcripts. *Biochimica Et Biophysica Acta* 1996;1306(1):63-74. Not sensitivity or specificity of an identified test
- Fraj B M, Birckbichler P J, Patterson M K et al. A retinoic acid-inducible mRNA from human erythroleukemia cells encodes a novel tissue transglutaminase homologue. *Journal of Biological Chemistry* 1992;267(31):22616-22623. Not sensitivity or specificity of an identified test
- Francis James, Carty John E, Scott Brian B. The prevalence of coeliac disease in rheumatoid arthritis. *European Journal of Gastroenterology & Hepatology* 2002;14(12):1355-1356. Not sensitivity or specificity of an identified test
- Franklin J L, Asquith P, Rosenberg I H. The occurrence of cystic fibrosis and celiac sprue within a single sibship. *American Journal of Digestive Diseases* 1974;19(2):149-155. Not sensitivity or specificity of an identified test
- Fraser J S, Ciclitira P J. Pathogenesis of coeliac disease: implications for treatment. *World Journal of Gastroenterology - Wjg* 2001;7(6):772-776. Not sensitivity or specificity of an identified test
- Fraser-Reynolds K A, Butzner J D, Stepure D K et al. Use of immunoglobulin A-antiendomysial antibody to screen for celiac disease in North American children with type 1 diabetes. *Diabetes Care* 1998;21(11):1985-1989. Improper control group
- Frazzoni M, Lonardo A, Grisendi A et al. Are routine duodenal and antral biopsies useful in the management of "functional" dyspepsia? A diagnostic and therapeutic study. *Journal of Clinical Gastroenterology* 1993;17(2):101-108. Not sensitivity or specificity of an identified test
- Freedman A R, Macartney J C, Nelufer J M et al. Timing of infiltration of T lymphocytes induced by gluten into the small intestine in coeliac disease. *Journal of Clinical Pathology* 1987;40(7):741-745. Not sensitivity or specificity of an identified test
- Freeman H J. Failure of added dietary gluten to induce small intestinal histopathological changes in patients with watery diarrhea and lymphocytic colitis. *Canadian Journal of Gastroenterology = Journal Canadien De Gastroenterologie* 1996;10(7):436-439. Not sensitivity or specificity of an identified test
- Freeman H J. Small intestinal mucosal biopsy for investigation of diarrhea and malabsorption in adults. *Gastrointestinal Endoscopy Clinics of North America* 2000;10(4):739-53, Vii. Not sensitivity or specificity of an identified test
- Freeman H J. Solid-phase ELISA for tissue transglutaminase, an endomysial target for possible serological diagnosis of celiac disease. *Canadian Journal of Gastroenterology = Journal Canadien De Gastroenterologie* 1998;12(5):323-324. Not sensitivity or specificity of an identified test
- Freeman H J. Biopsy-defined adult celiac disease in Asian-Canadians. *Canadian Journal of Gastroenterology = Journal Canadien De Gastroenterologie* 2003;17(7):433-436. Not sensitivity or specificity of an identified test
- Freeman H J. Celiac-associated autoimmune thyroid disease: A study of 16 patients with overt hypothyroidism: MALADIE THYROIDIENNE AUTO-IMMUNE DE NATURE COELIAQUE: ETUDE PORTANT SUR 16 PATIENTS ATTEINTS D'HYPOTHYROIDIE AVEREE. *Canadian Journal of Gastroenterology = Journal Canadien De Gastroenterologie* 1995;9(5):242-246. Not sensitivity or specificity of an identified test
- Freeman H J. Clinical spectrum of biopsy defined celiac disease in the elderly. *Canadian Journal of Gastroenterology = Journal Canadien De Gastroenterologie* 1995;9(1):42-46. Not sensitivity or specificity of an identified test
- Freeman H J. Free perforation due to intestinal lymphoma in biopsy-defined or suspected celiac disease. *Journal of Clinical Gastroenterology* 2003;37(4):299-302. Not sensitivity or specificity of an identified test
- Freeman H J. Survey of gastroenterologists on the diagnosis and treatment of adult patients with celiac disease in British Columbia. *Canadian Journal of Gastroenterology = Journal Canadien De Gastroenterologie* 1998;12(2):149-152. Not sensitivity or specificity of an identified test
- Freeman H J. Topography of lectin binding sites in celiac sprue. *Canadian Journal of Gastroenterology = Journal Canadien De Gastroenterologie* 1992;6(5):271-276. Not sensitivity or specificity of an identified test
- Freemark M, Levitsky L L. Screening for celiac disease in children with type 1 diabetes: Two views of the controversy. *Diabetes Care* 2003;26(6):1932-1939. Not sensitivity or specificity of an identified test
- Freier S. Paediatric gastrointestinal allergy. *Clin Allergy* 1973;3(Suppl):597-618. Not sensitivity or specificity of an identified test
- Frew A J, Bright S, Shewry P R et al. Proliferative response of lymphocytes of normal individuals to wheat proteins (Gliadins). *Int Arch Allergy Appl Immunol* 1980;62(2):162-167. Not sensitivity or specificity of an identified test
- Frezal J, Rey J. Genetics of disorders of intestinal digestion and absorption. *Advances in Human Genetics* 1970;1275-336. Not sensitivity or specificity of an identified test

Fric P, Lojda Z, Jodl J. Heterogeneity of enzymes of small-intestinal mucosa in malabsorption syndrome. *Ceskoslovenska Gastroenterologie a Vyziva* 1968;22(4):235-249. Not sensitivity or specificity of an identified test

Fric P, Lojda Z, Jodl J et al. Analysis of peroral jejunal biopsies in clinically asymptomatic parents of children with celiac sprue. *Digestion* 1969;2(1):35-42. Not sensitivity or specificity of an identified test

Friedrich M, Villena-Heinsen C, He J et al. Correlation between immunoreactivity for transglutaminase K and for markers of proliferation and differentiation in normal breast tissue and breast carcinomas. *European Journal of Gynaecological Oncology* 1998;19(5):444-448. Not sensitivity or specificity of an identified test

Friedrich M, Villena-Heinsen C, He J et al. Expression of transglutaminase K in normal cervix tissue and cervix carcinomas. *Histochem J* 1999;31(1):13-18. Not sensitivity or specificity of an identified test

Friedrichs B, Riedmiller H, Goebel H W et al. Immunological characterization and activity of transglutaminases in human normal and malignant prostate and in prostate cancer cell lines. *Urological Research* 1995;23(5):301-310. Not sensitivity or specificity of an identified test

Friis B, Karup Pedersen F, Schiodt M. Immunological studies in two children with recurrent parotitis. *Acta Paediatr Scand* 1983;72(2):265-268. Not sensitivity or specificity of an identified test

Friis S U, Gudmand-Hoyer E. Screening for coeliac disease in adults by simultaneous determination of IgA and IgG gliadin antibodies. *Scandinavian Journal of Gastroenterology* 1986;21(9):1058-1062. Improper control group

Friis S U, Larsen K, Boserup J et al. Gliadin antibody titers in coeliac patients during short-term provocations with bread made from wheat flour and enzymatic digested wheat flour. *European Journal of Gastroenterology & Hepatology* 1990;2(5):361-365. Not sensitivity or specificity of an identified test

Friis S U, Noren O, Sjostrom H et al. Patients with coeliac disease have a characteristic gliadin antibody pattern. *Clinica Chimica Acta* 1986; *International Journal of Clinical Chemistry*; 155(2):133-141. Not sensitivity or specificity of an identified test

Friis S, Dabelsteen E, Sjostrom H et al. Gliadin uptake in human enterocytes. Differences between coeliac patients in remission and control individuals. *Gut* 1992;33(11):1487-1492. Not sensitivity or specificity of an identified test

Frisman D M, McCarthy W F, Schleiff P et al. Immunocytochemistry in the differential diagnosis of

effusions: use of logistic regression to select a panel of antibodies to distinguish adenocarcinomas from mesothelial proliferations. *Modern Pathology - an Official Journal of the United States and Canadian Academy of Pathology, Inc* 1993;6(2):179-184. Not sensitivity or specificity of an identified test

Frisoni G B, Carabellese N, Longhi M et al. Is celiac disease associated with Alzheimer's disease?. *Acta Neurologica Scandinavica* 1997;95(3):147-151. Not sensitivity or specificity of an identified test

Frisoni M, Volta U, Valentini R A et al. Antigliadin antibody levels in symptomless celiac disease. *Digestive Diseases and Sciences* 1989;34(10):1639-1640. Review article

Fritz P, Mischlinski A, Mulhaupt H et al. Application of a new electrophoresis technique (2D cryostat section electrophoresis) to synovial tissue of RA patients and comparison with immunohistochemical staining methods. *Acta Histochemica. Supplementband* 1990;40:121-126. Not sensitivity or specificity of an identified test

Fronek Z, Cheung M M, Hanbury A M et al. Molecular analysis of HLA DP and DQ genes associated with dermatitis herpetiformis. *Journal of Investigative Dermatology* 1991;97(5):799-802. Not sensitivity or specificity of an identified test

Frustaci Andrea, Cuoco Lucio, Chimenti Cristina et al. Celiac disease associated with autoimmune myocarditis. *Circulation* 2002;105(22):2611-2618. Not sensitivity or specificity of an identified test

Fry L. Dermatitis herpetiformis. *Bailliere's Clinical Gastroenterology* 1995;9(2):371-393. Not sensitivity or specificity of an identified test

Fry L. Dermatitis herpetiformis: Problems, progress and prospects. *Eur J Dermatol* 2002;12(6):523-531. Not sensitivity or specificity of an identified test

Fry L, McMinn R M. Morphology and functional cytology of the small intestinal mucosa in malabsorptive disorders and other diseases. *Journal of Clinical Pathology* 1966;19(3):260-265. Not sensitivity or specificity of an identified test

Fry L, Seah P P, Hoffbrand A V. Dermatitis herpetiformis. *Clin Gastroenterol* 1974;3(1):145-157. Not sensitivity or specificity of an identified test

Fry L, Seah P P, McMinn R M et al. Lymphocytic infiltration of epithelium in diagnosis of gluten-sensitive enteropathy. *British Medical Journal* 1972;3(823):371-374. Not sensitivity or specificity of an identified test

Frye M, Bargon J, Lembcke B et al. Differential expression of human alpha- and beta-defensins mRNA in gastrointestinal epithelia. *European Journal of Clinical Investigation* 2000;30(8):695-701. Not sensitivity or

specificity of an identified test

Fugger L, Svejgaard A. The HLA-DQ7 and -DQ8 associations in DR4-positive rheumatoid arthritis patients. *Tissue Antigens* 1997;50(5):494-500. Not sensitivity or specificity of an identified test

Fujimoto M, Kanzaki H, Nakayama H et al. Requirement for transglutaminase in progesterone-induced decidualization of human endometrial stromal cells. *Endocrinology* 1996;137(3):1096-1101. Not sensitivity or specificity of an identified test

Fujimoto N, Tajima S, Ishibashi A. Elastin peptides induce migration and terminal differentiation of cultured keratinocytes via 67 kDa elastin receptor in vitro: 67 kDa elastin receptor is expressed in the keratinocytes eliminating elastic materials in elastosis perforans serpiginosa. *Journal of Investigative Dermatology* 2000;115(4):633-639. Not sensitivity or specificity of an identified test

Fujisaku A, Frank M B, Neas B et al. HLA-DQ gene complementation and other histocompatibility relationships in man with the anti-Ro/SSA autoantibody response of systemic lupus erythematosus. *J Clin Invest* 1990;86(2):606-611. Not sensitivity or specificity of an identified test

Fujita K, Naito S, Okabe N et al. Immunological studies in Crohn's disease. I. Association with HLA systems in the Japanese. *J Clin Lab Immunol* 1984;14(2):99-102. Not sensitivity or specificity of an identified test

Fukayama M, Koike M. So-called sclerosing hemangioma of the lung. An immunohistochemical, histochemical and ultrastructural study. *Acta Pathologica Japonica* 1988;38(5):627-642. Not sensitivity or specificity of an identified test

Fukuda K. Induction of tissue transglutaminase expression by propionate and n-butyrate in colon cancer cell lines. *J Nutr Biochem* 1999;10(7):397-404. Not sensitivity or specificity of an identified test

Fullen D R, Reed J A, Finnerty B et al. S100A6 expression in fibrohistiocytic lesions. *Journal of Cutaneous Pathology* 2001;28(5):229-234. Not sensitivity or specificity of an identified test

Furuya Y, Lundmo P, Short A D et al. The role of calcium, pH, and cell proliferation in the programmed (apoptotic) death of androgen-independent prostatic cancer cells induced by thapsigargin. *Cancer Research* 1994;54(23):6167-6175. Not sensitivity or specificity of an identified test

Gaboardi F, Perletti L, Cambie M et al. Dermatitis herpetiformis and nephrotic syndrome. *Clinical Nephrology* 1983;20(1):49-51. Not sensitivity or specificity of an identified test

Gabrielli Maurizio, Cremonini Filippo, Fiore Giuseppe et al. Association between migraine and Celiac disease: results from a preliminary case-control and therapeutic study. *American Journal of Gastroenterology* 2003;98(3):625-629. Not sensitivity or specificity of an identified test

Gale L, Wimalaratna H, Brotodiharjo A et al. Down Syndrome is strongly associated with coeliac disease. *Gut* 1997;40(4):492-496. Not sensitivity or specificity of an identified test

Gallagher R B, Cervi P, Kelly J et al. The subclass profile and complement activating potential of anti-alpha-gliadin antibodies in coeliac disease. *Journal of Clinical & Laboratory Immunology* 1989;28(3):115-121. Not sensitivity or specificity of an identified test

Gallagher R B, Feighery C, Weir D G et al. Studies on the interaction between alpha-gliadin and HLA and T cell receptor molecules in coeliac disease. *Clinical and Experimental Immunology* 1988;74(3):413-418. Not sensitivity or specificity of an identified test

Gallagher R B, Kelly C P, Neville S et al. Complement activation within the coeliac small intestine is localised to Brunner's glands. *Gut* 1989;30(11):1568-1573. Not sensitivity or specificity of an identified test

Gambelungho G, Falorni A, Ghaderi M et al. Microsatellite polymorphism of the MHC class I chain-related (MIC-A and MIC-B) genes marks the risk for autoimmune Addison's disease. *J Clin Endocrinol Metab* 1999;84(10):3701-3707. Not sensitivity or specificity of an identified test

Gambelungho G, Forini F, Laureti S et al. Increased risk for endocrine autoimmunity in Italian type 2 diabetic patients with GAD65 autoantibodies. *Clin Endocrinol* 2000;52(5):565-573. Not sensitivity or specificity of an identified test

Gambelungho G, Ghaderi M, Cosentino A et al. Association of MHC Class I chain-related A (MIC-A) gene polymorphism with Type I diabetes. *Diabetologia* 2000;43(4):507-514. Not sensitivity or specificity of an identified test

Gandolfi L, Catassi C, Garcia S et al. Antiendomysial antibody test reliability in children with frequent diarrhea and malnutrition: is it celiac disease?. *Journal of Pediatric Gastroenterology and Nutrition* 2001;33(4):483-487. Improper control group

Gandolfi L, Pratesi R, Cordoba J C et al. Prevalence of celiac disease among blood donors in Brazil. *American Journal of Gastroenterology* 2000;95(3):689-692. Not sensitivity or specificity of an identified test

Garcia Vilela E, De Lourdes, de Abreu et al. Agreement between pathologists concerning assessment of intestinal biopsies from adult celiac disease patients. *Gastroenterol*

- Int 2002;15(1-2):1-8. Improper control group
- Garcia-Buey L, Garcia-Monzon C, Rodriguez S et al. Latent autoimmune hepatitis triggered during interferon therapy in patients with chronic hepatitis C. *Gastroenterology* 1995;108(6):1770-1777. Not sensitivity or specificity of an identified test
- Gardas A, Bauer A, Rujner J et al. An enzyme-linked immunosorbent assay for the detection of serum antibodies to alpha-gliadin. *Pol J Immunol* 1994;19(1):49-60. Not sensitivity or specificity of an identified test
- Gardiner A J, Mutton K J, Walker Smith J A. A family study of coeliac disease. *Aust Paediatr J* 1973;9(1):18-24. Not sensitivity or specificity of an identified test
- Garrote J A, Arranz E, Blanco-Quiros A. The HLA-DRB4 gene is present in half of the Spanish HLA-DQ2-negative celiac patients. *Immunogenetics* 2000;51(12):1045-1046. Not sensitivity or specificity of an identified test
- Garrote J A, Sorell L, Alfonso P et al. A novel visual immunoassay for coeliac disease screening. *European Journal of Clinical Investigation* 1999;29(8):697-699. Not sensitivity or specificity of an identified test
- Garrote Jose A, Arranz Eduardo, Telleria Juan J et al. TNF alpha and LT alpha gene polymorphisms as additional markers of celiac disease susceptibility in a DQ2-positive population. *Immunogenetics* 2002;54(8):551-555. Not sensitivity or specificity of an identified test
- Gasbarrini Antonio, Ojetti Veronica, Cuoco Lucio et al. Lack of endoscopic visualization of intestinal villi with the "immersion technique" in overt atrophic celiac disease. *Gastrointestinal Endoscopy* 2003;57(3):348-351. Not sensitivity or specificity of an identified test
- Gasbarrini G, Miglio F, Serra M A et al. Immunological studies of the jejunal mucosa in normal subjects and adult celiac patients. *Digestion* 1974;10(2):122-128. Not sensitivity or specificity of an identified test
- Gasparini M, Brucato A, Riccobono S et al. Congenital complete heart block (CCHB), cardiac Purkinje cells antibodies (CPCA) and HLA typing: Long term follow-up. *New Trends Arrhythmias* 1991;7(4):969-974. Not sensitivity or specificity of an identified test
- Gasset A R, Richman A V, Frias J L. HLA antigens and keratoconus. *Ann Ophthalmol* 1977;9(6):767-768. Not sensitivity or specificity of an identified test
- Gaudry C A, Verderio E, Jones R A et al. Tissue transglutaminase is an important player at the surface of human endothelial cells: evidence for its externalization and its colocalization with the beta(1) integrin. *Experimental Cell Research* 1999;252(1):104-113. Not sensitivity or specificity of an identified test
- Gawkrodger D J, Blackwell J N, Gilmour H M et al. Dermatitis herpetiformis: diagnosis, diet and demography. *Gut* 1984;25(2):151-157. Not sensitivity or specificity of an identified test
- Gawkrodger D J, McDonald C, O'Mahony S et al. Small intestinal function and dietary status in dermatitis herpetiformis. *Gut* 1991;32(4):377-382. Not sensitivity or specificity of an identified test
- Gawkrodger D J, Sweeting V M, Edwards C R et al. Male sex hormone status in dermatitis herpetiformis. *British Journal of Dermatology* 1985;112(1):57-61. Not sensitivity or specificity of an identified test
- Gay G J, Delmotte J-S. Enteroscopy in small intestinal inflammatory diseases. *Gastrointest Endosc Clin North Am* 1999;9(1):115-123. Not sensitivity or specificity of an identified test
- Gaze H, Rolles C, Signer E et al. Premedication for jejunal biopsy in childhood using intravenous diazepam and metoclopramide. *Archives of Disease in Childhood* 1974;49(4):322-324. Not sensitivity or specificity of an identified test
- Gazit E, Avigad S, Zfat Z et al. The association of HL-A-B8 and childhood celiac disease in an Israeli population. *Israel Journal of Medical Sciences* 1977;13(4):400-404. Not sensitivity or specificity of an identified test
- Ge J, Hannestad K. A cytotoxic human hybridoma monoclonal antibody (TrJ6) defining an epitope expressed by HLA-DQ4 and -DQ5. *Hum Immunol* 1994;39(2):106-112. Not sensitivity or specificity of an identified test
- Ge J, Bartnes K, Hannestad K. A human monoclonal hybridoma antibody (TrJ1) specific for HLA-DQ2. *Tissue Antigens* 1993;41(2):81-85. Not sensitivity or specificity of an identified test
- Gebhard R L, Katz S I, Marks J. HL-A antigen type and small intestinal disease in dermatitis herpetiformis. *Lancet* 1973;2(7832):760-762. Not sensitivity or specificity of an identified test
- Gebhard R L, Stone B G, Prigge W F. 3-Hydroxy-3-methylglutaryl coenzyme A reductase activity in the human gastrointestinal tract. *Journal of Lipid Research* 1985;26(1):47-53. Not sensitivity or specificity of an identified test
- Geboes K, Ectors N, Desmet V J. Coeliac disease "anatomic pathology". *Acta Gastro-Enterologica Belgica* 1992;55(2):190-199. Not sensitivity or specificity of an identified test
- Geboes K, Ray M B, Rutgeerts P et al. Morphological identification of alpha-I-antitrypsin in the human small intestine. *Histopathology* 1982;6(1):55-60. Not sensitivity or specificity of an identified test
- Gebuhrer L, Adami N, Javaux F et al. Sequence of a new

- HLA-DR4 allele with an unusual residue at position 88 that does not seem to affect T-cell allo recognition. *Hum Immunol* 1996;51(1):60-62. Not sensitivity or specificity of an identified test
- Gedde-Dahl I I, Spurkland A, Eriksen J A et al. Memory T cells of a patient with follicular thyroid carcinoma recognize peptides derived from mutated p21 ras (Gln not <= Leu61). *Int Immunol* 1992;4(11):1331-1337. Not sensitivity or specificity of an identified test
- Gelfand M D, Spiro H M, Herskovic T. Small intestine glutaminase deficiency in celiac disease. *American Journal of Digestive Diseases* 1968;13(7):638-642. Not sensitivity or specificity of an identified test
- Gelmetti C, Bonifazi E, Cavalli R et al. Dermatitis herpetiformis. *Eur J Pediatr Dermatol* 1995;5(2):95-110. Not sensitivity or specificity of an identified test
- Gentile V, Davies P J, Baldini A. The human tissue transglutaminase gene maps on chromosome 20q12 by in situ fluorescence hybridization. *Genomics* 1994;20(2):295-297. Not sensitivity or specificity of an identified test
- Gentile V, Porta R, Chiosi E et al. tTGase/G alpha h protein expression inhibits adenylate cyclase activity in Balb-C 3T3 fibroblasts membranes. *Biochimica Et Biophysica Acta* 1997;1357(1):115-122. Not sensitivity or specificity of an identified test
- Gentile V, Saydak M, Chiocca E A et al. Isolation and characterization of cDNA clones to mouse macrophage and human endothelial cell tissue transglutaminases. *J Biol Chem* 1991;266(1):478-483. Not sensitivity or specificity of an identified test
- Gentile V, Sepe C, Calvani M et al. Tissue transglutaminase-catalyzed formation of high-molecular-weight aggregates in vitro is favored with long polyglutamine domains: a possible mechanism contributing to CAG-triplet diseases. *Archives of Biochemistry and Biophysics* 1998;352(2):314-321. Not sensitivity or specificity of an identified test
- Gentile Vittorio, Violante Vittorio, D'Amico Bonifacio et al. Tissue transglutaminase and coeliac disease pathogenesis: potential molecular mechanisms for other human diseases. *Neurochemistry International* 2002;40(1):79-83. Not sensitivity or specificity of an identified test
- George E K, Hertzberger-ten Cate R, Suijlekom-Smit L W et al. Juvenile chronic arthritis and coeliac disease in The Netherlands. *Clinical and Experimental Rheumatology* 1996;14(5):571-575. Not sensitivity or specificity of an identified test
- George E K, Jansen T L T A, Mearin M L et al. Epidemiology of celiac disease in the Netherlands. *Journal of Pediatric Gastroenterology and Nutrition* 1997;24(5):S7-S9. Not sensitivity or specificity of an identified test
- George E K, Mearin M L, Bouquet J et al. High frequency of celiac disease in Down syndrome. *Journal of Pediatrics* 1996;128(4):555-557. Not sensitivity or specificity of an identified test
- George E K, Mearin M L, Bouquet J et al. Screening for coeliac disease in Dutch children with associated diseases. *Acta paediatrica (Oslo, Norway : 1992).Supplement.* 1996;41252-53. Not sensitivity or specificity of an identified test
- George E K, Mearin M L, Franken H C et al. Twenty years of childhood coeliac disease in The Netherlands: a rapidly increasing incidence?. *Gut* 1997;40(1):61-66. Not sensitivity or specificity of an identified test
- George E K, Mearin M L, van der V et al. Low incidence of childhood celiac disease in The Netherlands. *Pediatric Research* 1995;37(2):213-218. Not sensitivity or specificity of an identified test
- George M D, Vollberg T M, Floyd E E et al. Regulation of transglutaminase type II by transforming growth factor-beta 1 in normal and transformed human epidermal keratinocytes. *Journal of Biological Chemistry* 1990;265(19):11098-11104. Not sensitivity or specificity of an identified test
- Gerbase-DeLima M, Gallo C A, Daher S et al. HLA antigens in asthmatic children. *Pediatr Allergy Immunol* 1997;8(3):150-152. Not sensitivity or specificity of an identified test
- Gheorghe C, Gheorghe L, Constantinescu A et al. The association between primary sclerosing cholangitis and adult celiac disease. *Genomics* 2000;67(2):43-48. Not sensitivity or specificity of an identified test
- Gheorghe L, Gheorghe C, Aposteanu G et al. Clinical spectrum of adult celiac disease in a referral center for Southern Romania. Associated disorders and short-term survival. *Rom J Gastroenterol* 1996;5(4):223-228. Not sensitivity or specificity of an identified test
- Ghezzi A, Zaffaroni M. Neurological manifestations of gastrointestinal disorders, with particular reference to the differential diagnosis of multiple sclerosis. *Neurological Sciences - Official Journal of the Italian Neurological Society and of the Italian Society of Clinical Neurophysiology* 2001;22(Suppl 2):s117-s122. Not sensitivity or specificity of an identified test
- Ghoos Y F, Vantrappen G R, Rutgeerts P J et al. A mixed-triglyceride breath test for intraluminal fat digestive activity. *Digestion* 1981;22(5):239-247. Not sensitivity or specificity of an identified test
- Giachino C, Rocci M P, De Libero G et al. An alternative approach to the assessment of gamma delta T-cell clonality in celiac disease intestinal lesions through cDNA heteroduplex analysis of T-cell receptor VJ junctions.

- Human Immunology 1994;40(4):303-311. Not sensitivity or specificity of an identified test
- Gianfrani Carmen, Troncone Riccardo, Mugione Patrizia et al. Celiac disease association with CD8+ T cell responses: identification of a novel gliadin-derived HLA-A2-restricted epitope. *Journal of Immunology* (Baltimore, Md.- 1950) 2003;170(5):2719-2726. Not sensitivity or specificity of an identified test
- Giannotti A, Tiberio G, Castro M et al. Coeliac disease in Williams syndrome. *Journal of Medical Genetics* 2001;38(11):767-768. Not sensitivity or specificity of an identified test
- Gibran N S, Heimbach D M, Holbrook K A. Immunolocalization of FXIIIa+ dendritic cells in human burn wounds. *Journal of Surgical Research* 1995;59(3):378-386. Not sensitivity or specificity of an identified test
- Gibran N S, Nickoloff B J, Holbrook K A. Ontogeny and characterization of factor XIIIa+ cells in developing human skin. *Anatomy and Embryology* 1996;193(1):35-41. Not sensitivity or specificity of an identified test
- Gilchrist J M, Thompson G C, Medina J E. Markers of keratinocyte differentiation in snuff-induced leukoplakia. *American Journal of Surgery* 1992;164(6):563-566. Not sensitivity or specificity of an identified test
- Gill S S, Heuman D M, Mihás A A. Small intestinal neoplasms. *Journal of Clinical Gastroenterology* 2001;33(4):267-282. Not sensitivity or specificity of an identified test
- Gillberg R, Ahren C. Coeliac disease diagnosed by means of duodenoscopy and endoscopic duodenal biopsy. *Scandinavian Journal of Gastroenterology* 1977;12(8):911-916. Not sensitivity or specificity of an identified test
- Gillberg R, Dotevall G, Kastrup W et al. Conventional malabsorption tests: do they detect the adult patient with villous atrophy?. *Scandinavian Journal of Clinical and Laboratory Investigation* 1984;44(1):91-98. Not sensitivity or specificity of an identified test
- Gillberg R, Kastrup W, Mobacken H. Endoscopic duodenal biopsy compared with biopsy with the Watson capsule from the upper jejunum in patients with dermatitis herpetiformis. *Scandinavian Journal of Gastroenterology* 1982;17(2):305-308. Not sensitivity or specificity of an identified test
- Gillberg R, Kastrup W, Mobacken H et al. Gastric morphology and function in dermatitis herpetiformis and in coeliac disease. *Scandinavian Journal of Gastroenterology* 1985;20(2):133-140. Not sensitivity or specificity of an identified test
- Gillet H, Ferguson A, Frier B. Coeliac disease often co-exists with Type 1 diabetes mellitus. *Pract Diabetes Int* 1998;15(4):117-120. Not sensitivity or specificity of an identified test
- Gillett H R, Freeman H J. Prevalence of celiac disease in collagenous and lymphocytic colitis. *Canadian Journal of Gastroenterology = Journal Canadien De Gastroenterologie* 2000;14(11):919-921. Not sensitivity or specificity of an identified test
- Gillett H R, Freeman H J. Serological testing in screening for adult celiac disease. *Canadian Journal of Gastroenterology = Journal Canadien De Gastroenterologie* 1999;13(3):265-269. Not sensitivity or specificity of an identified test
- Gillett H R, Cauch-Dudek K, Jenny E et al. Prevalence of IgA antibodies to endomysium and tissue transglutaminase in primary biliary cirrhosis. *Canadian Journal of Gastroenterology = Journal Canadien De Gastroenterologie* 2000;14(8):672-675. Not sensitivity or specificity of an identified test
- Gillett P M, Israel D M. Tissue transglutaminase: does the key fit the celiac lock?. *Journal of Pediatric Gastroenterology and Nutrition* 2000;30(2):222-223. Not sensitivity or specificity of an identified test
- Gillett P M, Gillett H R, Israel D M et al. High prevalence of celiac disease in patients with type 1 diabetes detected by antibodies to endomysium and tissue transglutaminase. *Canadian Journal of Gastroenterology = Journal Canadien De Gastroenterologie* 2001;15(5):297-301. Not sensitivity or specificity of an identified test
- Gillett P M, Gillett H R, Israel D M et al. Increased prevalence of celiac disease in girls with Turner syndrome detected using antibodies to endomysium and tissue transglutaminase. *Canadian Journal of Gastroenterology = Journal Canadien De Gastroenterologie* 2000;14(11):915-918. Not sensitivity or specificity of an identified test
- Giomi B, Cardinali C, Caproni M et al. Immunological markers in dermatitis herpetiformis: Anti-endomysium and anti-transglutaminase in association with increased myeloperoxidase and eosinophil cationic protein serum levels. *Int J Med Biol Environ* 2001;29(2):149-153. Not sensitivity or specificity of an identified test
- Giordano M, Bolognesi E, D'Alfonso S et al. Linkage disequilibrium between intra-locus variants in the aminopeptidase n gene and test of their association with coeliac disease. *Annals of Human Genetics* 1999;63(Pt 3):207-215. Not sensitivity or specificity of an identified test
- Giovannini C, Sanchez M, Straface E et al. Induction of apoptosis in caco-2 cells by wheat gliadin peptides. *Toxicology* 2000;145(1):63-71. Not sensitivity or specificity of an identified test
- Girdwood R H, Williams A W, McManus J P et al. Jejunal biopsy in patients with malabsorptive disease. *Scottish*

Medical Journal 1966;11(10):343-355. Not sensitivity or specificity of an identified test

Gjertsen H A, Lundin K E, Sollid L M et al. T cells recognize a peptide derived from alpha-gliadin presented by the celiac disease-associated HLA-DQ (alpha 1\*0501, beta 1\*0201) heterodimer. *Human Immunology* 1994;39(4):243-252. Not sensitivity or specificity of an identified test

Gjertsen H A, Sollid L M, Ek J et al. T cells from the peripheral blood of coeliac disease patients recognize gluten antigens when presented by HLA-DR, -DQ, or -DP molecules. *Scandinavian Journal of Immunology* 1994;39(6):567-574. Not sensitivity or specificity of an identified test

Gjone E, Oyri A. Protein-losing enteropathy in dermatitis herpetiformis. *Scandinavian Journal of Gastroenterology* 1970;5(1):13-15. Not sensitivity or specificity of an identified test

Glasgow J F, Corkey C W, Molla A. Critical assessment of small bowel biopsy in children. *Archives of Disease in Childhood* 1979;54(8):604-608. Unable to extract data

Gobbi G, Ambrosetto P, Zaniboni M G et al. Celiac disease, posterior cerebral calcifications and epilepsy. *Brain & Development* 1992;14(1):23-29. Not sensitivity or specificity of an identified test

Gobbi G, Bouquet F, Greco L et al. Coeliac disease, epilepsy, and cerebral calcifications. The Italian Working Group on Coeliac Disease and Epilepsy. *Lancet* 1992;340(8817):439-443. Not sensitivity or specificity of an identified test

Godkin A, Jewell D. The pathogenesis of celiac disease. *Gastroenterology* 1998;115(1):206-210. Not sensitivity or specificity of an identified test

Godkin A J, Davenport M P, Willis A et al. Use of complete eluted peptide sequence data from HLA-DR and -DQ molecules to predict T cell epitopes, and the influence of the nonbinding terminal regions of ligands in epitope selection. *Journal of Immunology (Baltimore, Md. - 1950)* 1998;161(2):850-858. Not sensitivity or specificity of an identified test

Godkin A, Friede T, Davenport M et al. Use of eluted peptide sequence data to identify the binding characteristics of peptides to the insulin-dependent diabetes susceptibility allele HLA-DQ8 (DQ 3.2). *International Immunology* 1997;9(6):905-911. Not sensitivity or specificity of an identified test

Godot V, Harraga S, Beurton I et al. Resistance/susceptibility to *Echinococcus multilocularis* infection and cytokine profile in humans. II. Influence of the HLA B8, DR3, DQ2 haplotype. *Clinical and Experimental Immunology* 2000;121(3):491-498. Not sensitivity or specificity of an identified test

Goggins M, Kelleher D. Celiac disease and other nutrient related injuries to the gastrointestinal tract. *American Journal of Gastroenterology* 1994;89(8 Suppl):S2-17. Not sensitivity or specificity of an identified test

Goggins M, Whelan A, Kelleher D. The immunology of coeliac disease. *Annales De Medecine Interne* 1996;147(1):40-48. Not sensitivity or specificity of an identified test

Goldblum J R, Tuthill R J. CD34 and factor-XIIIa immunoreactivity in dermatofibrosarcoma protuberans and dermatofibroma. *American Journal of Dermatopathology* 1997;19(2):147-153. Not sensitivity or specificity of an identified test

Goldsmith L A. Human epidermal transglutaminase. *Journal of Investigative Dermatology* 1983;80(Suppl):39s-41s. Not sensitivity or specificity of an identified test

Goldstein F, Wirts C W, Salen G et al. Diverticulosis of the small intestine. Clinical, bacteriologic, and metabolic observations in a group of seven patients. *American Journal of Digestive Diseases* 1969;14(3):170-181. Not sensitivity or specificity of an identified test

Goldstein N S, Underhill J. Morphologic features suggestive of gluten sensitivity in architecturally normal duodenal biopsy specimens. *American Journal of Clinical Pathology* 2001;116(1):63-71. Improper control group

Goldstein R, Sengar D P S. Comparative studies of the major histocompatibility complex in French Canadian and non-French Canadian Caucasians with systemic lupus erythematosus. *Arthritis Rheum* 1993;36(8):1121-1127. Not sensitivity or specificity of an identified test

Goldstein R, Moulds J M, Smith C D et al. MHC studies of the primary antiphospholipid antibody syndrome and of antiphospholipid antibodies in systemic lupus erythematosus. *J Rheumatol* 1996;23(7):1173-1179. Not sensitivity or specificity of an identified test

Gomez J C, Selvaggio G S, Viola M et al. Prevalence of celiac disease in Argentina: screening of an adult population in the La Plata area. *American Journal of Gastroenterology* 2001;96(9):2700-2704. Not sensitivity or specificity of an identified test

Gomez Juan C, Selvaggio Gisella, Pizarro Bibiana et al. Value of a screening algorithm for celiac disease using tissue transglutaminase antibodies as first level in a population-based study. *American Journal of Gastroenterology* 2002;97(11):2785-2790. Not sensitivity or specificity of an identified test

Goncz J, Skerritt J H, Mitchell J D. Differentiation of coeliac disease and other malabsorption diseases using specific serum antigliadin IgG subclass profiles and IgA1 levels. *International Archives of Allergy and Immunology* 1992;98(4):377-385. Not sensitivity or specificity of an

identified test

Gonzalez D, Sugai E, Gomez J C et al. Is it necessary to screen for celiac disease in postmenopausal osteoporotic women?. *Calcified Tissue International* 2002;71(2):141-144. Not sensitivity or specificity of an identified test

Gonzalez-Crussi F, Reyes-Mugica M. Cellular hemangiomas ("hemangioendotheliomas") in infants. Light microscopic, immunohistochemical, and ultrastructural observations. *American Journal of Surgical Pathology* 1991;15(8):769-778. Not sensitivity or specificity of an identified test

Gonzalez-Trevin tilde, Yamamoto-Furusho J K, Cutin tilde et al. HLA study on two Mexican mestizo families with autoimmune thyroid disease. *Autoimmunity* 2002;35(4):265-269. Not sensitivity or specificity of an identified test

Goodchild M C, Nelson R, Anderson C M. Cystic fibrosis and coeliac disease: coexistence in two children. *Arch Dis Child* 1973;48(9):684-691. Not sensitivity or specificity of an identified test

Goossens J F, Manechez D, Pommery N et al. VIP potentiates retinoic-acid effect on tissue transglutaminase activity in human neuroblastoma, the SK-N-SH cells. *Neuropeptides* 1993;24(2):99-103. Not sensitivity or specificity of an identified test

Gorczyca Wojciech, Tsang Patricia, Liu Zach et al. CD30-positive T-cell lymphomas co-expressing CD15: an immunohistochemical analysis. *International Journal of Oncology* 2003;22(2):319-324. Not sensitivity or specificity of an identified test

Gorkun O V, Veklich Y I, Weisel J W et al. The conversion of fibrinogen to fibrin: recombinant fibrinogen typifies plasma fibrinogen. *Blood* 1997;89(12):4407-4414. Not sensitivity or specificity of an identified test

Gorski J, Niven M J, Sachs J A et al. HLA-DR alpha, -DX alpha, and DR beta III gene association studies in DR3 individuals. *Hum Immunol* 1987;20(4):273-278. Not sensitivity or specificity of an identified test

Gorza L, Menabo R, Di Lisa F et al. Troponin T cross-linking in human apoptotic cardiomyocytes. *American Journal of Pathology* 1997;150(6):2087-2097. Not sensitivity or specificity of an identified test

Gorza L, Menabo R, Vitadello M et al. Cardiomyocyte troponin T immunoreactivity is modified by cross-linking resulting from intracellular calcium overload. *Circulation* 1996;93(10):1896-1904. Not sensitivity or specificity of an identified test

Gosiewska A, Yi C F, Blanc-Brude O et al. Characterization of a macrophage-based system for studying the activation of latent TGF-beta. *Methods in Cell Science - an Official Journal of the Society for in Vitro*

*Biology* 1999;21(1):47-56. Not sensitivity or specificity of an identified test

Gottardis M M, Lamph W W, Shalinsky D R et al. The efficacy of 9-cis retinoic acid in experimental models of cancer. *Breast Cancer Research and Treatment* 1996;38(1):85-96. Not sensitivity or specificity of an identified test

Gottschalk J, Jautzke G, Schreiner C. Epithelial and melanoma antigens in gliosarcoma. An immunohistochemical study. *Pathology, Research and Practice* 1992;188(1-2):182-190. Not sensitivity or specificity of an identified test

Gottschalk J, Jautzke G, Marzheuser-Brands S et al. Factor XIIIa immunoreactivity in primary and secondary tumours of the meninges. *Zentralblatt Fur Pathologie* 1993;139(4-5):343-349. Not sensitivity or specificity of an identified test

Goulet O, Keding M, Brousse N et al. Intractable diarrhea of infancy with epithelial and basement membrane abnormalities. *Journal of Pediatrics* 1995;127(2):212-219. Not sensitivity or specificity of an identified test

Goulston K, Bhanthumnavin K, Harrison D. Investigation of steatorrhea. *Medical Journal of Australia* 1968;2(11):462-466. Not sensitivity or specificity of an identified test

Grabarek Jerzy, Ardelt Barbara, Kunicki Jan et al. Detection of in situ activation of transglutaminase during apoptosis: correlation with the cell cycle phase by multiparameter flow and laser scanning cytometry. *Cytometry - the Journal of the Society for Analytical Cytology* 2002;49(2):83-89. Not sensitivity or specificity of an identified test

Graff Ronald D, Picher Maryse, Lee Greta M. Extracellular nucleotides, cartilage stress, and calcium crystal formation. *Current Opinion in Rheumatology* 2003;15(3):315-320. Not sensitivity or specificity of an identified test

Graham J, Kockum I, Sanjeevi C B et al. Negative association between type 1 diabetes and HLA DQB1\*0602-DQA1\*0102 is attenuated with age at onset. *Eur J Immunogenet* 1999;26(2-3):117-127. Not sensitivity or specificity of an identified test

Graham Jinko, Hagopian William A, Kockum Ingrid et al. Genetic effects on age-dependent onset and islet cell autoantibody markers in type 1 diabetes. *Diabetes* 2002;51(5):1346-1355. Not sensitivity or specificity of an identified test

Grainger D J, Frow E K. Thrombospondin 1 does not activate transforming growth factor beta1 in a chemically defined system or in smooth-muscle-cell cultures. *Biochem J* 2000;350(1):291-298. Not sensitivity or specificity of an identified test

- Granados J, Vargas-Alarcon G, Drenkard C et al. Relationship of anticardiolipin antibodies and antiphospholipid syndrome to HLA-DR7 in Mexican patients with systemic lupus erythematosus (SLE). *Lupus* 1997;6(1):57-62. Not sensitivity or specificity of an identified test
- Granditsch G, Deutsch J, Tsarmaklis G et al. Exposure to X-rays during small bowel biopsies in children. *European Journal of Pediatrics* 1981;137(2):165-169. Not sensitivity or specificity of an identified test
- Granditsch G, Ludwig H, Polymenidis Z et al. Letter: Coeliac disease and HL-A8. *Lancet* 1973;2(7834):908-909. Not sensitivity or specificity of an identified test
- Grando S A, Horton R M, Mauro T M et al. Activation of keratinocyte nicotinic cholinergic receptors stimulates calcium influx and enhances cell differentiation. *Journal of Investigative Dermatology* 1996;107(3):412-418. Not sensitivity or specificity of an identified test
- Granot E, Korman S M, Sallon S et al. "Early" vs. "late" diagnosis of celiac disease in two ethnic groups living in the same geographic area. *Israel Journal of Medical Sciences* 1994;30(4):271-275. Not sensitivity or specificity of an identified test
- Gravinghoff J, Huetter H J. The activities of alanine aminopeptidase, leucine aminopeptidase, proline dipeptidase and prolyl dipeptidase in the mucosa of the small intestine. Investigations on normal children and patients with the malabsorption syndrome. *European Journal of Pediatrics* 1977;127(1):57-62. Not sensitivity or specificity of an identified test
- Gray M H, Smoller B R, McNutt N S et al. Immunohistochemical demonstration of factor XIIIa expression in neurofibromas. A practical means of differentiating these tumors from neurotized melanocytic nevi and schwannomas. *Archives of Dermatology* 1990;126(4):472-476. Not sensitivity or specificity of an identified test
- Gray M H, Trimble C L, Zirn J et al. Relationship of factor XIIIa-positive dermal dendrocytes to Kaposi's sarcoma. *Archives of Pathology & Laboratory Medicine* 1991;115(8):791-796. Not sensitivity or specificity of an identified test
- Greco L, Babron M C, Corazza G R et al. Existence of a genetic risk factor on chromosome 5q in Italian Coeliac disease families. *Ann Hum Genet* 2001;-(1):35-41. Not sensitivity or specificity of an identified test
- Greco L, Corazza G, Babron M C et al. Genome search in celiac disease. *American Journal of Human Genetics* 1998;62(3):669-675. Not sensitivity or specificity of an identified test
- Greco L, D'Adamo G, Trusculli A et al. Intestinal permeability after single dose gluten challenge in coeliac disease. *Archives of Disease in Childhood* 1991;66(7):870-872. Not sensitivity or specificity of an identified test
- Greco L, Percopo S, Clot F et al. Lack of correlation between genotype and phenotype in celiac disease. *Journal of Pediatric Gastroenterology and Nutrition* 1998;26(3):286-290. Not sensitivity or specificity of an identified test
- Greco L, Romino R, Coto I et al. The first large population based twin study of coeliac disease. *Gut* 2002;50(5):624-628. Not sensitivity or specificity of an identified test
- Greco L, Troncone R, De Vizia B et al. Discriminant analysis for the diagnosis of childhood celiac disease. *Journal of Pediatric Gastroenterology and Nutrition* 1987;6(4):538-542. Improper control group
- Green Peter H R, Jabri Bana. Coeliac disease. *Lancet* 2003;362(9381):383-391. Not sensitivity or specificity of an identified test
- Green J R, Chiew M K, Low H C et al. The association between HLA antigens and the presence of certain diseases. *Statistics in Medicine* 1983;2(1):79-85. Not sensitivity or specificity of an identified test
- Green J R, Goble H L, Edwards C R et al. Reversible insensitivity to androgens in men with untreated gluten enteropathy. *Lancet* 1977;1(8006):280-282. Not sensitivity or specificity of an identified test
- Green P H R, Stavropoulos S N, Panagi S G et al. Characteristics of adult celiac disease in the USA: results of a national survey. *American Journal of Gastroenterology* 2001;96(1):126-131. Not sensitivity or specificity of an identified test
- Green P H, Shane E, Rotterdam H et al. Significance of unsuspected celiac disease detected at endoscopy. *Gastrointestinal Endoscopy* 2000;51(1):60-65. Not sensitivity or specificity of an identified test
- Greenberg C S, Achyuthan K E, Borowitz M J et al. The transglutaminase in vascular cells and tissues could provide an alternate pathway for fibrin stabilization. *Blood* 1987;70(3):702-709. Not sensitivity or specificity of an identified test
- Greenberg C S, Birckbichler P J, Rice R H. Transglutaminases: multifunctional cross-linking enzymes that stabilize tissues. *Faseb Journal - Official Publication of the Federation of American Societies for Experimental Biology* 1991;5(15):3071-3077. Not sensitivity or specificity of an identified test
- Greenberg D A, Lange K L. A maximum likelihood test of the two locus model for coeliac disease. *American Journal of Medical Genetics* 1982;12(1):75-82. Not sensitivity or specificity of an identified test
- Greenberg D A, Rotter J I. Two locus models for gluten

sensitive enteropathy: population genetic considerations. *American Journal of Medical Genetics* 1981;8(2):205-214. Not sensitivity or specificity of an identified test

Greenberg D A, Hodge S E, Rotter J I. Evidence for recessive and against dominant inheritance at the HLA-"linked" locus in coeliac disease. *American Journal of Human Genetics* 1982;34(2):263-277. Not sensitivity or specificity of an identified test

Greenhouse J P, Monier-Williams M. Geophysical monitoring of ground water contamination around waste disposal sites. *Ground Water Monit Rev* 1985;5(4):63-69. Not sensitivity or specificity of an identified test

Greenwald A J, Johnson D S, Oskvig R M et al. Alpha-1-antitrypsin deficiency, emphysema, cirrhosis, and intestinal mucosal atrophy. *Jama - the Journal of the American Medical Association* 1975;231(3):273-276. Not sensitivity or specificity of an identified test

Grefte J M, Bouman J G, Grond J et al. Slow and incomplete histological and functional recovery in adult gluten sensitive enteropathy. *Journal of Clinical Pathology* 1988;41(8):886-891. Not sensitivity or specificity of an identified test

Grehn S, Fridell K, Lilliecreutz M et al. Dietary habits of Swedish adult coeliac patients treated by a gluten-free diet for 10 years. *Scand J Nutr Naringsforsk* 2001;45(4):178-182. Not sensitivity or specificity of an identified test

Grenard P, Bates M K, Aeschlimann D. Evolution of transglutaminase genes: identification of a transglutaminase gene cluster on human chromosome 15q15. Structure of the gene encoding transglutaminase X and a novel gene family member, transglutaminase Z. *Journal of Biological Chemistry* 2001;276(35):33066-33078. Not sensitivity or specificity of an identified test

Grierson A J, Johnson G V, Miller C C. Three different human tau isoforms and rat neurofilament light, middle and heavy chain proteins are cellular substrates for transglutaminase. *Neuroscience Letters* 2001;298(1):9-12. Not sensitivity or specificity of an identified test

Griffin Martin, Casadio Rita, Bergamini Carlo M. Transglutaminases: nature's biological glues. *Biochemical Journal* 2002;368(Pt 2):377-396. Not sensitivity or specificity of an identified test

Griffiths C E, Barrison I G, Leonard J N et al. Preferential activation of CD4 T lymphocytes in the lamina propria of gluten-sensitive enteropathy. *Clinical and Experimental Immunology* 1988;72(2):280-283. Not sensitivity or specificity of an identified test

Grigoriev M Y, Suspitsin E N, Togo A V et al. Tissue transglutaminase expression in breast carcinomas. *Journal of Experimental & Clinical Cancer Research - Cr* 2001;20(2):265-268. Not sensitivity or specificity of an identified test

Grillo R, Petronzelli F, Ferrante P et al. Unusual HLA typing in celiac disease. *Disease Markers* 1996;13(1):61-64. Not sensitivity or specificity of an identified test

Grodzinsky E. Screening for coeliac disease in apparently healthy blood donors. *Acta paediatrica (Oslo, Norway : 1992).Supplement.* 1996;41236-38. Improper control group

Grodzinsky E, Franzen L, Hed J et al. High prevalence of celiac disease in healthy adults revealed by antigliadin antibodies. *Annals of Allergy* 1992;69(1):66-70. Improper control group

Grodzinsky E, Hed J, Skogh T. IgA antiendomysium antibodies have a high positive predictive value for celiac disease in asymptomatic patients. *Allergy* 1994;49(8):593-597. Improper control group

Grodzinsky E, Hed J, Lieden G et al. Presence of IgA and IgG antigliadin antibodies in healthy adults as measured by micro-ELISA. Effect of various cutoff levels on specificity and sensitivity when diagnosing coeliac disease. *International Archives of Allergy and Applied Immunology* 1990;92(2):119-123. Improper control group

Grodzinsky E, Ivarsson A, Juto P et al. New automated immunoassay measuring immunoglobulin A antigliadin antibodies for prediction of celiac disease in childhood. *Clinical and Diagnostic Laboratory Immunology* 2001;8(3):564-570. Improper control group

Grodzinsky E, Jansson G, Skogh T et al. Anti-endomysium and anti-gliadin antibodies as serological markers for coeliac disease in childhood: a clinical study to develop a practical routine. *Acta Paediatrica (Oslo, Norway - 1992)* 1995;84(3):294-298. Improper control group

Groisman G M, Sabo E, Meir A et al. Enterocyte apoptosis and proliferation are increased in microvillous inclusion disease (familial microvillous atrophy). *Human Pathology* 2000;31(11):1404-1410. Not sensitivity or specificity of an identified test

Groisman Gabriel M, Amar Mary, Livne Erella. CD10: a valuable tool for the light microscopic diagnosis of microvillous inclusion disease (familial microvillous atrophy). *American Journal of Surgical Pathology* 2002;26(7):902-907. Not sensitivity or specificity of an identified test

Groll A. Symposium on diarrhea. 3. Investigation of chronic diarrhea. *Canadian Medical Association Journal* 1977;116(7):742-744. Not sensitivity or specificity of an identified test

Groll A, Candy D C, Preece M A et al. Short stature as the primary manifestation of coeliac disease. *Lancet* 1980;2(8204):1097-1099. Not sensitivity or specificity of an identified test

Gross Stephane R, Balklava Zita, Griffin Martin.

- Importance of tissue transglutaminase in repair of extracellular matrices and cell death of dermal fibroblasts after exposure to a solarium ultraviolet A source. *Journal of Investigative Dermatology* 2003;121(2):412-423. Not sensitivity or specificity of an identified test
- Grunewald J, Olerup O, Persson U et al. T-cell receptor variable region gene usage by CD4sup + and CD8sup + T cells in bronchoalveolar lavage fluid and peripheral blood of sarcoidosis patients. *Proc Natl Acad Sci U S A* 1994;91(11):4965-4969. Not sensitivity or specificity of an identified test
- Grunewald J, Shigematsu M, Nagai S et al. T-cell receptor V gene expression in HLA-typed Japanese patients with pulmonary sarcoidosis. *Am J Respir Crit Care Med* 1995;151(1):151-156. Not sensitivity or specificity of an identified test
- Gryboski J. False security of a gluten-free diet. *American Journal of Diseases of Children* (1960) 1981;135(2):110-111. Not sensitivity or specificity of an identified test
- Grzybowski J, Antos M, Sakiel S et al. Antidietary antigen antibodies in the sera of patients with burns as a potential marker of gut mucosa integrity failure. *Journal of Burn Care & Rehabilitation* 1992;13(2 Pt 1):194-197. Not sensitivity or specificity of an identified test
- Guadiz G, Sporn L A, Simpson-Haidaris P J. Thrombin cleavage-independent deposition of fibrinogen in extracellular matrices. *Blood* 1997;90(7):2644-2653. Not sensitivity or specificity of an identified test
- Guandalini S. Celiac disease in the new world. *Journal of Pediatric Gastroenterology and Nutrition* 2000;31(4):362-364. Not sensitivity or specificity of an identified test
- Guandalini S, Ventura A, Ansaldi N et al. Diagnosis of coeliac disease: time for a change?. *Archives of Disease in Childhood* 1989;64(9):1320-1324. Not sensitivity or specificity of an identified test
- Guarino A, Spagnuolo M I, Russo S et al. Etiology and risk factors of severe and protracted diarrhea. *Journal of Pediatric Gastroenterology and Nutrition* 1995;20(2):173-178. Not sensitivity or specificity of an identified test
- Guariso G, Messina C, Gazzola M V et al. Transient erythoblastopenia in coeliac disease. *Haematologica* 2001;86(8):E23 Not sensitivity or specificity of an identified test
- Guglielmino C R, De Silvestri A, Martinetti M. HLA class I and II genes in relation to the genetic structure and epidemiology of an Italian province. *Experimental and Clinical Immunogenetics* 1997;14(2):149-159. Not sensitivity or specificity of an identified test
- Guiraldes E, Gutierrez C, Castillo C. Letter: Coeliac disease. *Medical Journal of Australia* 1975;1(10):322 Not sensitivity or specificity of an identified test
- Guix M, Skinner J M, Whitehead R. Morphometric electron and light microscope analysis of lymphoid cells in coeliac disease. *Scandinavian Journal of Gastroenterology* 1979;14(3):261-265. Not sensitivity or specificity of an identified test
- Guix M, Skinner J M, Whitehead R. Ultrastructural analysis of plasma cells in celiac patients. *Gut* 1979;20(6):504-508. Not sensitivity or specificity of an identified test
- Gumurdulu Derya, Zeren E, Handan Cagle et al. Specificity of MOC-31 and HBME-1 immunohistochemistry in the differential diagnosis of adenocarcinoma and malignant mesothelioma: a study on environmental malignant mesothelioma cases from Turkish villages. *Pathology Oncology Research - Por* 2003;8(3):188-193. Not sensitivity or specificity of an identified test
- Gupta M, Nikitina-Zake L, Landin-Olsson M et al. Coxsackie virus B antibodies are increased in HLA DR3-MICA5.1 positive type 1 diabetes patients in the Linkoping region of Sweden. *Hum Immunol* 2003;64(9):874-879. Not sensitivity or specificity of an identified test
- Gupta M, Nikitina-Zake L, Zarghami M et al. Association between the transmembrane region polymorphism of MHC class I chain related gene-A and type 1 diabetes mellitus in Sweden. *Hum Immunol* 2003;64(5):553-561. Not sensitivity or specificity of an identified test
- Gupta M, Tandon N, Shtauvere-Brameus A et al. ICA12 autoantibodies are associated with Non-DR3/Non-DR4 in patients with latent autoimmune diabetes in adults from Northern India. *Ann New York Acad Sci* 2002;958(-):329-332. Not sensitivity or specificity of an identified test
- Gupte S. Changing concepts in celiac disease. *Jk Science* 2001;3(3):103-104. Not sensitivity or specificity of an identified test
- Guvenc cedil, Kaymakog caron, Gurel N et al. The prevalence of manifest and latent celiac disease in type 1 diabetes mellitus. *Turk J Gastroenterol* 2002;13(2):103-107. Not sensitivity or specificity of an identified test
- Guzman J, Bross K J, Wurtemberger G et al. Immunocytology in malignant pleural mesothelioma. Expression of tumor markers and distribution of lymphocyte subsets. *Chest* 1989;95(3):590-595. Not sensitivity or specificity of an identified test
- Haas L, Petit-Phar M, Terzidis H et al. IgA subclass distribution of IgA anti-gliadin antibodies in feces of patients with coeliac disease. *Advances in Experimental Medicine and Biology* 1995;371b1349-1353. Not sensitivity or specificity of an identified test
- Habior Andrzej, Lewartowska Aleksandra, Orłowska Janina et al. Association of coeliac disease with primary biliary cirrhosis in Poland. *European Journal of*

- Gastroenterology & Hepatology 2003;15(2):159-164. Not sensitivity or specificity of an identified test
- Hadjivassiliou M, Boscolo S, Davies-Jones G A B et al. The humoral response in the pathogenesis of gluten ataxia. *Neurology* 2002;58(8):1221-1226. Not sensitivity or specificity of an identified test
- Hadjivassiliou M, Chattopadhyay A K, Davies-Jones G A B et al. Neuromuscular disorder as a presenting feature of coeliac disease. *J Neurol Neurosurg Psychiatry* 1997;63(6):770-775. Not sensitivity or specificity of an identified test
- Hadjivassiliou M, Davies-Jones G A B, Sanders D S et al. Dietary treatment of gluten ataxia. *Journal of Neurology, Neurosurgery, and Psychiatry* 2003;74(9):1221-1224. Not sensitivity or specificity of an identified test
- Hadjivassiliou M, Gibson A, Davies-Jones G A et al. Does cryptic gluten sensitivity play a part in neurological illness?. *Lancet* 1996;347(8998):369-371. Not sensitivity or specificity of an identified test
- Hadjivassiliou M, Grunewald R A, Davies-Jones G A B. Gluten sensitivity: A many headed hydra. *Br Med J* 1999;318(7200):1710-1711. Not sensitivity or specificity of an identified test
- Hadjivassiliou M, Grunewald R A, Davies-Jones G A B. Gluten sensitivity as a neurological illness. *J Neurol Neurosurg Psychiatry* 2002;72(5):560-563. Not sensitivity or specificity of an identified test
- Hadjivassiliou M, Grunewald R A, Chattopadhyay A K et al. Clinical, radiological, neurophysiological, and neuropathological characteristics of gluten ataxia. *Lancet* 1998;352(9140):1582-1585. Not sensitivity or specificity of an identified test
- Hadjivassiliou Marios, Grunewald Richard, Sharrack Basil et al. Gluten ataxia in perspective: epidemiology, genetic susceptibility and clinical characteristics. *Brain* 2003;A *Journal of Neurology*; 126(Pt 3):685-691. Not sensitivity or specificity of an identified test
- Hadziselimovic F, Emmons L R, Schaub U et al. Occurrence of large granular lymphocytes and natural killer cells in the epithelium of the gut distinguishes two different coeliac diseases. *Gut* 1992;33(6):767-772. Not sensitivity or specificity of an identified test
- Hafeez A, Ali S, Hassan M. An audit of pediatric upper gastrointestinal endoscopies. *J Coll Phys Surg Pak* 2000;10(1):13-15. Not sensitivity or specificity of an identified test
- Hafstrom I, Ringertz B, Spangberg A et al. A vegan diet free of gluten improves the signs and symptoms of rheumatoid arthritis: The effects on arthritis correlate with a reduction in antibodies to food antigens. *Rheumatology (Uk)* 2001;40(10):1175-1179. Not sensitivity or specificity of an identified test
- of an identified test
- Haga P. Plasma ferritin concentrations in preterm infants in cord blood and during the early anaemia of prematurity. *Acta Paediatrica Scandinavica* 1980;69(5):637-641. Not sensitivity or specificity of an identified test
- Hager H, Gliemann J, Hamilton-Dutoit S et al. Developmental regulation of tissue transglutaminase during human placentation and expression in neoplastic trophoblast. *Journal of Pathology* 1997;181(1):106-110. Not sensitivity or specificity of an identified test
- Hager H, Jensen P H, Hamilton-Dutoit S et al. Expression of tissue transglutaminase in human bladder carcinoma. *Journal of Pathology* 1997;183(4):398-403. Not sensitivity or specificity of an identified test
- Hagopian W A, Sanjeevi C B, Kockum I et al. Glutamate decarboxylase-, insulin-, and islet cell-antibodies and HLA typing to detect diabetes in a general population-based study of Swedish children. *Journal of Clinical Investigation* 1995;95(4):1505-1511. Not sensitivity or specificity of an identified test
- Hahn-Zoric M, Hytonen A M, Hanson L A et al. Association of -1087 IL10 and -308 TNFA gene polymorphisms with serological markers of coeliac disease. *J Clin Immunol* 2003;23(4):291-296. Not sensitivity or specificity of an identified test
- Hahnel A C, Eddy E M. Cell surface markers of mouse primordial germ cells defined by two monoclonal antibodies. *Gamete Res* 1986;15(1):25-34. Not sensitivity or specificity of an identified test
- Hahnel A C, Eddy E M. The distribution of two cell surface determinants of mouse embryonal carcinoma and early embryonic cells. *J Reprod Immunol* 1987;10(2):89-110. Not sensitivity or specificity of an identified test
- Hajjar E T, Vincenti F, Salti I S. Gluten induced enteropathy. Osteomalacia as its principal manifestation. *Arch Intern Med* 1974;134(3):565-566. Not sensitivity or specificity of an identified test
- Hakeem V, Fifield R, al Bayaty H F et al. Salivary IgA anti gliadin antibody as a marker for coeliac disease. *Archives of Disease in Childhood* 1992;67(6):724-727. Test-specific exclusion
- Hall M A, Lanchbury J S, Ciclitira P J. HLA class II region genes and susceptibility to dermatitis herpetiformis: DPB1 and TAP2 associations are secondary to those of the DQ subregion. *European Journal of Immunogenetics - Official Journal of the British Society for Histocompatibility and Immunogenetics* 1996;23(4):285-296. Not sensitivity or specificity of an identified test
- Hall M A, Lanchbury J S, Bolsover W J et al. Celiac disease is associated with an extended HLA-DR3 haplotype which includes HLA-DPw1. *Hum Immunol*

- 1990;27(3):220-228. Not sensitivity or specificity of an identified test
- Hall M A, Lanchbury J S, Bolsover W J et al. HLA association with dermatitis herpetiformis is accounted for by a cis or transassociated DQ heterodimer. *Gut* 1991;32(5):487-490. Not sensitivity or specificity of an identified test
- Hall M A, Lanchbury J S, Lee J S et al. HLA-DQ2 second-domain polymorphisms may explain increased trans-associated risk in celiac disease and dermatitis herpetiformis. *Human Immunology* 1993;38(4):284-292. Improper control group
- Hall M A, Lanchbury J S, Sturgess R P et al. TCR Vbeta usage in peripheral blood and small intestinal biopsies of treated and untreated celiac disease patients. *Eur J Immunogenet* 1992;19(6):439. Not sensitivity or specificity of an identified test
- Hall P A, d'Ardenne A J, Stansfeld A G. Paraffin section immunohistochemistry. I. Non-Hodgkin's lymphoma. *Histopathology* 1988;13(2):149-160. Not sensitivity or specificity of an identified test
- Hall R P. Dermatitis herpetiformis and the mucosal immune response. *Journal of Autoimmunity* 1991;4(1):47-58. Not sensitivity or specificity of an identified test
- Hall R P. The pathogenesis of dermatitis herpetiformis: recent advances. *Journal of the American Academy of Dermatology* 1987;16(6):1129-1144. Not sensitivity or specificity of an identified test
- Hall R P, Waldbauer G V. Characterization of the mucosal immune response to dietary antigens in patients with dermatitis herpetiformis. *Journal of Investigative Dermatology* 1988;90(5):658-663. Not sensitivity or specificity of an identified test
- Hall R P, Lawley T J, Katz S I. Dermatitis herpetiformis. *Springer Seminars in Immunopathology* 1981;4(1):33-43. Not sensitivity or specificity of an identified test
- Hall R P, Owen S, Smith A et al. TCR Vbeta expression in the small bowel of patients with dermatitis herpetiformis and gluten sensitive enteropathy. Limited expression in dermatitis herpetiformis and treated asymptomatic gluten sensitive enteropathy. *Experimental Dermatology* 2000;9(4):275-282. Not sensitivity or specificity of an identified test
- Hall R P, Ward F E, Wenstrup R J. An HLA class II region restriction fragment length polymorphism (RFLP) in patients with dermatitis herpetiformis: association with HLA-DP phenotype. *Journal of Investigative Dermatology* 1990;95(2):172-177. Not sensitivity or specificity of an identified test
- Hallert C, Granno C, Grant C et al. Quality of life of adult celiac patients treated for 10 years. *Scandinavian Journal of Gastroenterology* 1998;33(9):933-938. Not sensitivity or specificity of an identified test
- Hallert C, Tobiasson P, Walan A. Serum folate determinations in tracing adult coeliacs. *Scandinavian Journal of Gastroenterology* 1981;16(2):263-267. Not sensitivity or specificity of an identified test
- Hallgren J, Knutson F, Lavo B et al. Increased mucosal synthesis of rheumatoid factor (RF) in celiac disease. *Clinical and Experimental Immunology* 1996;103(1):94-98. Not sensitivity or specificity of an identified test
- Hallgren R, Colombel J F, Dahl R et al. Neutrophil and eosinophil involvement of the small bowel in patients with celiac disease and Crohn's disease: studies on the secretion rate and immunohistochemical localization of granulocyte granule constituents. *American Journal of Medicine* 1989;86(1):56-64. Not sensitivity or specificity of an identified test
- Halsted C H, Reisenauer A M, Romero J J. Jejunal perfusion of simple and conjugated folates in celiac sprue. *J Clin Invest* 1977;59(5):933-940. Not sensitivity or specificity of an identified test
- Halstensen T S, Hvatum M, Scott H et al. Association of subepithelial deposition of activated complement and immunoglobulin G and M response to gluten in celiac disease. *Gastroenterology* 1992;102(3):751-759. Not sensitivity or specificity of an identified test
- Halstensen T S, Scott H, Brandtzaeg P. Human CD8+ intraepithelial T lymphocytes are mainly CD45RA-RB+ and show increased co-expression of CD45R0 in celiac disease. *European Journal of Immunology* 1990;20(8):1825-1830. Not sensitivity or specificity of an identified test
- Halstensen T S, Scott H, Fausa O et al. Gluten stimulation of coeliac mucosa in vitro induces activation (CD25) of lamina propria CD4+ T cells and macrophages but no crypt-cell hyperplasia. *Scandinavian Journal of Immunology* 1993;38(6):581-590. Not sensitivity or specificity of an identified test
- Halter S A, Greene H L, Helinek G. Gluten-sensitive enteropathy: sequence of villous regrowth as viewed by scanning electron microscopy. *Human Pathology* 1982;13(9):811-818. Not sensitivity or specificity of an identified test
- Halter S A, Greene H L, Helinek G. Scanning electron microscopy of small intestinal repair following treatment for gluten sensitive enteropathy. *Scanning Electron Microscopy* 1980;3(3):155-161. Not sensitivity or specificity of an identified test
- Halttunen T, Maki M. Serum immunoglobulin A from patients with celiac disease inhibits human T84 intestinal crypt epithelial cell differentiation. *Gastroenterology* 1999;116(3):566-572. Not sensitivity or specificity of an identified test

identified test

Hamilton I, Cobden I, Rothwell J et al. Intestinal permeability in coeliac disease: the response to gluten withdrawal and single-dose gluten challenge. *Gut* 1982;23(3):202-210. Not sensitivity or specificity of an identified test

Hamilton I, Fairris G M, Rothwell J et al. Small intestinal permeability in dermatological disease. *Quarterly Journal of Medicine* 1985;56(221):559-567. Not sensitivity or specificity of an identified test

Hamilton I, Hill A, Bose B et al. Small intestinal permeability in pediatric clinical practice. *Journal of Pediatric Gastroenterology and Nutrition* 1987;6(5):697-701. Not sensitivity or specificity of an identified test

Hamilton J D, Chambers R A, Wynn Williams A. Role of gluten, prednisone, and azathioprine in non responsive coeliac disease. *Lancet* 1976;1(7971):1213-1216. Not sensitivity or specificity of an identified test

Hamilton J R, McNeill L K. Childhood coeliac disease: response of treated patients to a small uniform daily dose of wheat gluten. *Journal of Pediatrics* 1972;81(5):885-893. Not sensitivity or specificity of an identified test

Hamilton J R, Lynch M J, Reilly B J. Active coeliac disease in childhood. Clinical and laboratory findings of forty-two cases. *Quarterly Journal of Medicine* 1969;38(150):135-158. Not sensitivity or specificity of an identified test

Hand D, Campoy F J, Clark S et al. Activity and distribution of tissue transglutaminase in association with nerve-muscle synapses. *J Neurochem* 1993;61(3):1064-1072. Not sensitivity or specificity of an identified test

Hansen D, Bennedbaek F N, Hansen L K et al. High prevalence of coeliac disease in Danish children with type I diabetes mellitus. *Acta Paediatrica (Oslo, Norway - 1992)* 2001;90(11):1238-1243. Not sensitivity or specificity of an identified test

Hansen T, Lundin K E A, Markussen G et al. T cell receptor usage by HLA-DQ8 specific T cell clones. *Eos Riv Immunol Immunofarmacol* 1993;13(1):70-71. Not sensitivity or specificity of an identified test

Hansson T, Anneren G, Sjoberg O et al. Celiac disease in relation to immunologic serum markers, trace elements, and HLA-DR and DQ antigens in Swedish children with Down syndrome. *Journal of Pediatric Gastroenterology and Nutrition* 1999;29(3):286-292. Improper control group

Hansson T, Dannaeus A, Klareskog L. Cytokine-producing cells in peripheral blood of children with coeliac disease secrete cytokines with a type 1 profile. *Clinical and Experimental Immunology* 1999;116(2):246-250. Not sensitivity or specificity of an identified test

Hansson T, Dannaeus A, Kraaz W et al. Production of antibodies to gliadin by peripheral blood lymphocytes in children with celiac disease: the use of an enzyme-linked immunospot technique for screening and follow-up. *Pediatric Research* 1997;41(4 Pt 1):554-559. Improper control group

Hansson T, Ulfgren A-K, Lindroos E et al. Transforming growth factor-beta (TGF-beta) and tissue transglutaminase expression in the small intestine in children with coeliac disease. *Scandinavian Journal of Immunology* 2002;56(5):530-537. Not sensitivity or specificity of an identified test

Hansson Tony, Dahlbom Ingrid, Rogberg Siv et al. Recombinant human tissue transglutaminase for diagnosis and follow-up of childhood coeliac disease. *Pediatric Research* 2002;51(6):700-705. Improper control group

Hanukoglu A, Mizrahi A, Dalal I et al. Extraprostatic autoimmune manifestations in type 1 diabetes patients and their first-degree relatives: A multicenter study. *Diabetes Care* 2003;26(4):1235-1240. Not sensitivity or specificity of an identified test

Harbeck N, Untch M, Pache L et al. Tumour cell detection in the bone marrow of breast cancer patients at primary therapy: results of a 3-year median follow-up. *British Journal of Cancer* 1994;69(3):566-571. Not sensitivity or specificity of an identified test

Hardman C M, Garioch J J, Leonard J N et al. Absence of toxicity of oats in patients with dermatitis herpetiformis. *New England Journal of Medicine* 1997;337(26):1884-1887. Not sensitivity or specificity of an identified test

Hardoff D, Levanon D, Gitay H et al. Evaluation of microvillin in gluten-sensitive enteropathy by means of scanning and transmission electron microscopy. *Journal of Pediatric Gastroenterology and Nutrition* 1986;5(4):560-564. Not sensitivity or specificity of an identified test

Harewood G C, Murray J A. Diagnostic approach to a patient with suspected celiac disease: a cost analysis. *Digestive Diseases and Sciences* 2001;46(11):2510-2514. Not sensitivity or specificity of an identified test

Harley J B, Reichlin M, Arnett F C. Gene interaction at HLA-DQ enhances autoantibody production in primary Sjogren's syndrome. *Science* 1986;232(4754):1145-1147. Not sensitivity or specificity of an identified test

Harley J B, Sestak A L, Willis L G et al. A model for disease heterogeneity in systemic lupus erythematosus. Relationships between histocompatibility antigens, autoantibodies, and lymphopenia or renal disease. *Arthritis Rheum* 1989;32(7):826-836. Not sensitivity or specificity of an identified test

Haroon Z A, Lai T-S, Hettasch J M et al. Tissue transglutaminase is expressed as a host response to tumor invasion and inhibits tumor growth. *Lab Invest*

- 1999;79(12):1679-1686. Not sensitivity or specificity of an identified test
- Haroon Z A, Wannenburg T, Gupta M et al. Localization of tissue transglutaminase in human carotid and coronary artery atherosclerosis: implications for plaque stability and progression. *Laboratory Investigation* 2001;A *Journal of Technical Methods and Pathology*; 81(1):83-93. Not sensitivity or specificity of an identified test
- Harper G D, Wheeler D C, Wicks A C B. Butterfat absorption - a valuable screening test in malabsorption. *Postgrad Med J* 1994;70(819):23-26. Not sensitivity or specificity of an identified test
- Harrison L C, Honeyman M C. Cow's milk and type 1 diabetes: the real debate is about mucosal immune function. *Diabetes* 1999;48(8):1501-1507. Not sensitivity or specificity of an identified test
- Haslam N, Probert C S. An audit of the investigation and treatment of folic acid deficiency. *Journal of the Royal Society of Medicine* 1998;91(2):72-73. Not sensitivity or specificity of an identified test
- Haslam N, Lock R J, Unsworth D J. Coeliac disease, anaemia and pregnancy. *Clinical Laboratory* 2001;47(9-10):467-469. Not sensitivity or specificity of an identified test
- Hathout E H, Hartwick N, Fagoaga O R et al. Clinical, autoimmune, and HLA characteristics of children diagnosed with type 1 diabetes before 5 years of age. *Pediatrics* 2003;111(4):860-863. Not sensitivity or specificity of an identified test
- Hattevig G, Kjellman B, Fallstrom S P. Congenital permanent diabetes mellitus and celiac disease. *Journal of Pediatrics* 1982;101(6):955-957. Not sensitivity or specificity of an identified test
- Hauert J, Patston P A, Schapira M. C1 inhibitor cross-linking by tissue transglutaminase. *Journal of Biological Chemistry* 2000;275(19):14558-14562. Not sensitivity or specificity of an identified test
- Hauri H P, Kedinger M, Haffen K et al. Re-evaluation of the technique of organ culture for studying gluten toxicity in coeliac disease. *Gut* 1978;19(12):1090-1098. Not sensitivity or specificity of an identified test
- Hausch Felix, Shan Lu, Santiago Nilda A et al. Intestinal digestive resistance of immunodominant gliadin peptides. *American Journal of Physiology. Gastrointestinal and Liver Physiology* 2002;283(4):G996-G1003. Not sensitivity or specificity of an identified test
- Hayat M, Arora D S, Dixon M F et al. Effects of *Helicobacter pylori* eradication on the natural history of lymphocytic gastritis. *Gut* 1999;45(4):495-498. Not sensitivity or specificity of an identified test
- Hayat M, Arora D S, Wyatt J I et al. The pattern of involvement of the gastric mucosa in lymphocytic gastritis is predictive of the presence of duodenal pathology. *Journal of Clinical Pathology* 1999;52(11):815-819. Not sensitivity or specificity of an identified test
- Hayat M, Cairns A, Dixon M F et al. Quantitation of intraepithelial lymphocytes in human duodenum: what is normal?. *Journal of Clinical Pathology* 2002;55(5):393-394. Not sensitivity or specificity of an identified test
- Haycock G B. Screening test for coeliac disease. *Archives of Disease in Childhood* 1976;51(5):401. Not sensitivity or specificity of an identified test
- Hazama H, Omagari K, Masuda J et al. Serial changes in enzyme inhibitory antibody to pyruvate dehydrogenase complex during the course of primary biliary cirrhosis. *Journal of Clinical Laboratory Analysis* 2000;14(5):208-213. Not sensitivity or specificity of an identified test
- Hazama Hiroaki, Omagari Katsuhisa, Masuda Jun et al. Automated enzymatic mitochondrial antibody assay for the diagnosis of primary biliary cirrhosis: applications of a routine diagnostic tool for the detection of antimitochondrial antibodies. *Journal of Gastroenterology and Hepatology* 2002;17(3):316-323. Not sensitivity or specificity of an identified test
- Heath D J, Downes S, Verderio E et al. Characterization of tissue transglutaminase in human osteoblast-like cells. *Journal of Bone and Mineral Research - the Official Journal of the American Society for Bone and Mineral Research* 2001;16(8):1477-1485. Not sensitivity or specificity of an identified test
- Heath Deborah J, Christian Paul, Griffin Martin. Involvement of tissue transglutaminase in the stabilisation of biomaterial/tissue interfaces important in medical devices. *Biomaterials* 2002;23(6):1519-1526. Not sensitivity or specificity of an identified test
- Hed J, Lieden G, Ottosson E. IgA anti-gliadin antibodies and jejunal mucosal lesions in healthy blood donors. *Lancet* 1986;2(8500):215. Not sensitivity or specificity of an identified test
- Hedin C A, Gerner L, Larsson A. The retrocuspid papilla and factor XIIIa: an epidemiologic and histomorphologic study. *Scandinavian Journal of Dental Research* 1994;102(5):290-294. Not sensitivity or specificity of an identified test
- Heine R G, Catto-Smith A G. Antibodies in the diagnosis and management of coeliac disease. *J Paediatr Child Health* 1993;29(5):331-334. Not sensitivity or specificity of an identified test
- Hekimgil M, Soydan S, Nart D et al. Histopathologic and immunophenotypic features of childhood and adult anaplastic large-cell lymphomas. *Turk J Haematol* 2001;18(4):265-274. Not sensitivity or specificity of an identified test

identified test

Hellesen C, Friis T, Larsen E et al. Small intestinal histology, radiology and absorption in hyperthyroidism. *Scandinavian Journal of Gastroenterology* 1969;4(2):169-175. Not sensitivity or specificity of an identified test

Helm K F, Peters M S. Immunodermatology update: the immunologically mediated vesiculobullous diseases. *Mayo Clinic Proceedings* 1991;66(2):187-202. Not sensitivity or specificity of an identified test

Hendrick D J, Faux J A, Anand B et al. Is bird fancier's lung associated with coeliac disease?. *Thorax* 1978;33(4):425-428. Not sensitivity or specificity of an identified test

Hendrix T R. Interpretation of intestinal biopsies. *Gastroenterology* 1968;54(5):976-978. Not sensitivity or specificity of an identified test

Heneghan M A, Kearns M, Goulding J et al. Secretor status and human leucocyte antigens in coeliac disease. *Scandinavian Journal of Gastroenterology* 1996;31(10):973-976. Not sensitivity or specificity of an identified test

Heneghan M A, McHugh P, Stevens F M et al. Addison's disease and selective IgA deficiency in two coeliac patients. *Scandinavian Journal of Gastroenterology* 1997;32(5):509-511. Not sensitivity or specificity of an identified test

Heneghan M A, Stevens F M, Cryan E M et al. Celiac sprue and immunodeficiency states: a 25-year review. *Journal of Clinical Gastroenterology* 1997;25(2):421-425. Not sensitivity or specificity of an identified test

Henriksson P, Becker S, Lynch G et al. Identification of intracellular factor XIII in human monocytes and macrophages. *Journal of Clinical Investigation* 1985;76(2):528-534. Not sensitivity or specificity of an identified test

Herlinger H, Maglinte D D. Jejunal fold separation in adult celiac disease: relevance of enteroclysis. *Radiology* 1986;158(3):605-611. Not sensitivity or specificity of an identified test

Herman A E, Tisch R M, Patel S D et al. Determination of glutamic acid decarboxylase 65 peptides presented by the type I diabetes-associated HLA-DQ8 class II molecule identifies an immunogenic peptide motif. *J Immunol* 1999;163(11):6275-6282. Not sensitivity or specificity of an identified test

Hermann R, Soltesz G. Prevalence and HLA association of GAD65 antibodies in Hungarian schoolchildren. *Hum Immunol* 2003;64(1):152-155. Not sensitivity or specificity of an identified test

Hermann R, Mijovic C H, Rayner M et al. HLA alleles and

IDDM in children in Hungary: a comparison with Finland. *Human Immunology* 2001;62(4):391-398. Not sensitivity or specificity of an identified test

Hernandez J L, Michalski J P, McCombs C C et al. Evidence for a dominant gene mechanism underlying coeliac disease in the west of Ireland. *Genetic Epidemiology* 1991;8(1):13-27. Not sensitivity or specificity of an identified test

Hernandez M A, Colina G, Ortigosa L. Epilepsy, cerebral calcifications and clinical or subclinical coeliac disease. Course and follow up with gluten-free diet. Seizure - the *Journal of the British Epilepsy Association* 1998;7(1):49-54. Not sensitivity or specificity of an identified test

Hernandez M, Argente J, Navarro A et al. Growth in malnutrition related to gastrointestinal diseases: Coeliac disease. *Horm Res* 1992;38(Suppl 1):79-84. Not sensitivity or specificity of an identified test

Hernanz A, Polanco I, Codoceo R. Gastrointestinal peptide profile in children with celiac disease. *Journal of Pediatric Gastroenterology and Nutrition* 1987;6(3):341-345. Not sensitivity or specificity of an identified test

Herrera M, Chertkoff L, Palavecino E et al. Restriction fragment length polymorphism in HLA class II genes of Latin-American Caucasian celiac disease patients. *Human Immunology* 1989;26(4):272-280. Not sensitivity or specificity of an identified test

Herrera M, Theiler G, Augustovski F et al. Molecular characterization of HLA class II genes in celiac disease patients of Latin American Caucasian origin. *Tissue Antigens* 1994;43(2):83-87. Improper control group

Herron M D, Zone J J. Treatment of dermatitis herpetiformis and linear IgA bullous dermatosis. *Dermatol Ther* 2002;15(4):374-381. Not sensitivity or specificity of an identified test

Hertvig E, Wieslander J, Johansson C et al. Anti-neutrophil cytoplasmic antibodies in chronic inflammatory bowel disease. Prevalence and diagnostic role. *Scandinavian Journal of Gastroenterology* 1995;30(7):693-698. Not sensitivity or specificity of an identified test

Herulf M, Blomquist L, Ljung T et al. Increased rectal nitric oxide in coeliac disease after local challenge with gluten. *Scandinavian Journal of Gastroenterology* 2001;36(2):169-173. Not sensitivity or specificity of an identified test

Hervonen K, Karell K, Holopainen P et al. Concordance of dermatitis herpetiformis and celiac disease in monozygous twins. *Journal of Investigative Dermatology* 2000;115(6):990-993. Not sensitivity or specificity of an identified test

Hessels J, Eidhof H H M, Steggink J et al. Assessment of hypolactasia and site-specific intestinal permeability of

- differential sugar absorption of raffinose, lactose, sucrose and mannitol. *Clin Chem Lab Med* 2003;41(8):1056-1063. Not sensitivity or specificity of an identified test
- Hettasch J M, Bandarenko N, Burchette J L et al. Tissue transglutaminase expression in human breast cancer. *Laboratory Investigation* 1996;75(5):637-645. Not sensitivity or specificity of an identified test
- Hettasch J M, Peoples K A, Greenberg C S. Analysis of factor XIII substrate specificity using recombinant human factor XIII and tissue transglutaminase Chimeras. *J Biol Chem* 1997;272(40):25149-25156. Not sensitivity or specificity of an identified test
- Hetzel P A, Bennett G D, Sheldon A B et al. Genetic markers in Australian Caucasian subjects with coeliac disease. *Tissue Antigens* 1987;30(1):18-22. Not sensitivity or specificity of an identified test
- Heurkens A H, Hiemstra P S, Lafeber G J et al. Anti-endothelial cell antibodies in patients with rheumatoid arthritis complicated by vasculitis. *Clinical and Experimental Immunology* 1989;78(1):7-12. Not sensitivity or specificity of an identified test
- Hevessy Z, Patthy A, Karpati L et al. alpha(2)-plasmin inhibitor is a substrate for tissue transglutaminase: an in vitro study. *Thrombosis Research* 2000;99(4):399-406. Not sensitivity or specificity of an identified test
- Heward J M, Mijovic C H, Kelly M A et al. HLA-DQ and DRB1 polymorphism and susceptibility to type 1 diabetes in Jamaica. *European Journal of Immunogenetics - Official Journal of the British Society for Histocompatibility and Immunogenetics* 2002;29(1):47-52. Not sensitivity or specificity of an identified test
- Hidasi V, Adany R, Muszbek L. Localization of transglutaminase in human lenses. *Journal of Histochemistry and Cytochemistry - Official Journal of the Histochemistry Society* 1995;43(11):1173-1177. Not sensitivity or specificity of an identified test
- Hide D W, Burman D. An infant with both cystic fibrosis and coeliac disease. *Archives of Disease in Childhood* 1969;44(236):533-535. Not sensitivity or specificity of an identified test
- Higounenc I, Demarchez M, Regnier M et al. Improvement of epidermal differentiation and barrier function in reconstructed human skin after grafting onto athymic nude mice. *Archives of Dermatological Research* 1994;286(2):107-114. Not sensitivity or specificity of an identified test
- Hiiragi T, Sasaki H, Nagafuchi A et al. Transglutaminase type 1 and its cross-linking activity are concentrated at adherens junctions in simple epithelial cells. *Journal of Biological Chemistry* 1999;274(48):34148-34154. Not sensitivity or specificity of an identified test
- Hill A V S. Immunogenetics and genomics. *Lancet* 2001;357(9273):2037-2041. Not sensitivity or specificity of an identified test
- Hill I D. Celiac disease - A never-ending story?. *Journal of Pediatrics* 2003;143(3):289-291. Not sensitivity or specificity of an identified test
- Hill I, Fasano A, Schwartz R et al. The prevalence of celiac disease in at-risk groups of children in the United States. *Journal of Pediatrics* 2000;136(1):86-90. Not sensitivity or specificity of an identified test
- Hill P G, Thompson S P, Holmes G K. IgA anti-gliadin antibodies in adult celiac disease. *Clinical Chemistry* 1991;37(5):647-650. Improper control group
- Hill R, Cutz E, Cherian G et al. An evaluation of D-xylose absorption measurements in children suspected of having small intestinal disease. *Journal of Pediatrics* 1981;99(2):245-247. Not sensitivity or specificity of an identified test
- Hill S M, Phillips A D, Mearns M et al. Cows' milk sensitive enteropathy in cystic fibrosis. *Archives of Disease in Childhood* 1989;64(9):1251-1255. Not sensitivity or specificity of an identified test
- Hillert J, Kall T, Olerup O et al. Distribution of HLA-Dw2 in optic neuritis and multiple sclerosis indicates heterogeneity. *Acta Neurol Scand* 1996;94(3):161-166. Not sensitivity or specificity of an identified test
- Hilton D A, Love S, Barber R. Increased endothelial expression of transglutaminase in glioblastomas. *Neuropathology and Applied Neurobiology* 1997;23(6):507-511. Not sensitivity or specificity of an identified test
- Hin H, Bird G, Fisher P et al. Coeliac disease in primary care: case finding study. *Bmj (Clinical Research Ed.)* 1999;318(7177):164-167. Not sensitivity or specificity of an identified test
- Hines M D, Jin H C, Wheelock M J et al. Inhibition of cadherin function differentially affects markers of terminal differentiation in cultured human keratinocytes. *Journal of Cell Science* 1999;112(Pt 24):4569-4579. Not sensitivity or specificity of an identified test
- Hinks L J, Inwards K D, Lloyd B et al. Body content of selenium in coeliac disease. *Br Med J* 1984;288(6434):1862-1863. Not sensitivity or specificity of an identified test
- Hirao T, Denda M, Takahashi M. Identification of immature cornified envelopes in the barrier-impaired epidermis by characterization of their hydrophobicity and antigenicities of the components. *Experimental Dermatology* 2001;10(1):35-44. Not sensitivity or specificity of an identified test

- Hitman G A, Niven M J, Festenstein H et al. HLA class II alpha chain gene polymorphisms in patients with insulin-dependent diabetes mellitus, dermatitis herpetiformis, and celiac disease. *Journal of Clinical Investigation* 1987;79(2):609-615. Not sensitivity or specificity of an identified test
- Hitomi K, Presland R B, Nakayama T et al. Analysis of epidermal-type transglutaminase (transglutaminase 3) in human stratified epithelia and cultured keratinocytes using monoclonal antibodies. *J Dermatol Sci* 2003;32(2):95-103. Not sensitivity or specificity of an identified test
- Hjelmstrom P, Giscombe R, Lefvert A K et al. TAP polymorphisms in Swedish myasthenia gravis patients. *Tissue Antigens* 1997;49(2):176-179. Not sensitivity or specificity of an identified test
- Ho G J, Gregory E J, Smirnova I V et al. Cross-linking of beta-amyloid protein precursor catalyzed by tissue transglutaminase. *Febs Letters* 1994;349(1):151-154. Not sensitivity or specificity of an identified test
- Ho K C, Quarmby V E, French F S et al. Molecular cloning of rat prostate transglutaminase complementary DNA. The major androgen-regulated protein DP1 of rat dorsal prostate and coagulating gland. *Journal of Biological Chemistry* 1992;267(18):12660-12667. Not sensitivity or specificity of an identified test
- Hodges J R, Isaacson P, Smith C L et al. Malignant histiocytosis of the intestine. *Digestive Diseases and Sciences* 1979;24(8):631-638. Not sensitivity or specificity of an identified test
- Hodges S, Lobo-Yeo A, Donaldson P et al. Autoimmune chronic active hepatitis in a family. *Gut* 1991;32(3):299-302. Not sensitivity or specificity of an identified test
- Hoey J. Irritable bowel syndrome: Could it be celiac disease?. *Can Med Assoc J* 2002;166(4):479-480. Not sensitivity or specificity of an identified test
- Hoffbrand A V. Anaemia in adult coeliac disease. *Clin Gastroenterol* 1974;3(1):71-89. Not sensitivity or specificity of an identified test
- Hoffenberg E J, Bao F, Eisenbarth G S et al. Transglutaminase antibodies in children with a genetic risk for celiac disease. *Journal of Pediatrics* 2000;137(3):356-360. Unable to extract data
- Hoffenberg E J, Haas J, Drescher A et al. A trial of oats in children with newly diagnosed celiac disease. *Journal of Pediatrics* 2000;137(3):361-366. Not sensitivity or specificity of an identified test
- Hoffenberg E J, Mackenzie T, Barriga K J et al. A prospective study of the incidence of childhood celiac disease. *Journal of Pediatrics* 2003;143(3):308-314. Not sensitivity or specificity of an identified test
- Hoffmann M, Vogelsang H, Kletter K et al. 18F-fluoro-deoxy-glucose positron emission tomography (18F-FDG-PET) for assessment of enteropathy-type T cell lymphoma. *Gut* 2003;52(3):347-351. Not sensitivity or specificity of an identified test
- Hogberg L, Falth-Magnusson K, Grodzinsky E et al. Familial prevalence of coeliac disease: A twenty-year follow-up study. *Scandinavian Journal of Gastroenterology* 2003;38(1):61-65. Not sensitivity or specificity of an identified test
- Hogberg L, Grodzinsky E, Stenhammar L. Better dietary compliance in patients with coeliac disease diagnosed in early childhood. *Scandinavian Journal of Gastroenterology* 2003;38(7):751-754. Not sensitivity or specificity of an identified test
- Hogberg L, Nordwall M, Stenhammar L. One thousand small-bowel biopsies in children. A single-port versus a double-port capsule. *Scandinavian Journal of Gastroenterology* 2001;36(11):1230-1232. Not sensitivity or specificity of an identified test
- Hogberg L, Nordwall M, Stenhammar L. Small bowel capsule biopsy in children: parents' opinions on children's discomfort. *Acta Paediatrica (Oslo, Norway - 1992)* 2001;90(8):876-878. Not sensitivity or specificity of an identified test
- Hohenadl C, Mann K, Mayer U et al. Two adjacent N-terminal glutamines of BM-40 (osteonectin, SPARC) act as amine acceptor sites in transglutaminaseC-catalyzed modification. *Journal of Biological Chemistry* 1995;270(40):23415-23420. Not sensitivity or specificity of an identified test
- Hohl D. Expression patterns of loricrin in dermatological disorders. *American Journal of Dermatopathology* 1993;15(1):20-27. Not sensitivity or specificity of an identified test
- Hohl D, Aeschlimann D, Huber M. In vitro and rapid in situ transglutaminase assays for congenital ichthyoses--a comparative study. *Journal of Investigative Dermatology* 1998;110(3):268-271. Not sensitivity or specificity of an identified test
- Hohl D, de Viragh P A, Amiguet-Barras F et al. The small proline-rich proteins constitute a multigene family of differentially regulated cornified cell envelope precursor proteins. *Journal of Investigative Dermatology* 1995;104(6):902-909. Not sensitivity or specificity of an identified test
- Hohl D, Huber M, Frenk E. Analysis of the cornified cell envelope in lamellar ichthyosis. *Archives of Dermatology* 1993;129(5):618-624. Not sensitivity or specificity of an identified test
- Holdstock D J, Oleesky S. Successful treatment of collagenous sprue with combination of prednisolone and

- gluten free diet. *Postgrad Med J* 1973;49(575):664-667. Not sensitivity or specificity of an identified test
- Holdstock G. Jejunal biopsy without the need for screening. *Lancet* 1978;1(8076):1236-1237. Not sensitivity or specificity of an identified test
- Holdstock G, Eade O E, Isaacson P et al. Endoscopic duodenal biopsies in coeliac disease and duodenitis. *Scandinavian Journal of Gastroenterology* 1979;14(6):717-720. Unable to extract data
- Holl R W, Grabert M, Heinze E et al. Age at onset and long-term metabolic control affect height in type-1 diabetes mellitus. *European Journal of Pediatrics* 1998;157(12):972-977. Not sensitivity or specificity of an identified test
- Hollen E, Hogberg L, Stenhammar L et al. Antibodies to oat prolamines (avenins) in children with coeliac disease. *Scandinavian Journal of Gastroenterology* 2003;38(7):742-746. Not sensitivity or specificity of an identified test
- Holm K, Maki M, Savilahti E et al. Intraepithelial gamma delta T-cell-receptor lymphocytes and genetic susceptibility to coeliac disease. *Lancet* 1992;339(8808):1500-1503. Not sensitivity or specificity of an identified test
- Holm K, Savilahti E, Koskimies S et al. Immunohistochemical changes in the jejunum in first degree relatives of patients with coeliac disease and the coeliac disease marker DQ genes. HLA class II antigen expression, interleukin-2 receptor positive cells and dividing crypt cells. *Gut* 1994;35(1):55-60. Unable to extract data
- Holmes G K. Coeliac disease and Type 1 diabetes mellitus - the case for screening. *Diabetic Medicine - a Journal of the British Diabetic Association* 2001;18(3):169-177. Not sensitivity or specificity of an identified test
- Holmes G K T. Screening for coeliac disease in type 1 diabetes. *Archives of Disease in Childhood* 2002;87(6):495-498. Not sensitivity or specificity of an identified test
- Holmes G K T, Stokes P L, Sorahan T M. Coeliac disease, gluten free diet, and malignancy. *Gut* 1976;17(8):612-619. Not sensitivity or specificity of an identified test
- Holmes G K, Asquith P, Stokes P L et al. Cellular infiltrate of jejunal biopsies in adult coeliac disease (ACD) in relation to gluten withdrawal. *Gut* 1973;14(5):429. Not sensitivity or specificity of an identified test
- Holmes G K, Asquith P, Stokes P L et al. Cellular infiltrate of jejunal biopsies in adult coeliac disease in relation to gluten withdrawal. *Gut* 1974;15(4):278-283. Not sensitivity or specificity of an identified test
- Holmgren Peterson K, Falth-Magnusson K, Magnusson K E et al. Children with coeliac disease express inducible nitric oxide synthase in the small intestine during gluten challenge. *Scandinavian Journal of Gastroenterology* 1998;33(9):939-943. Not sensitivity or specificity of an identified test
- Holmgren Peterson K, Magnusson K E, Stenhammar L et al. Confocal laser scanning microscopy of small-intestinal mucosa in celiac disease. *Scandinavian Journal of Gastroenterology* 1995;30(3):228-234. Not sensitivity or specificity of an identified test
- Holopainen P, Arvas M, Sistonen P et al. CD28/CTLA4 gene region on chromosome 2q33 confers genetic susceptibility to celiac disease. A linkage and family-based association study. *Tissue Antigens* 1999;53(5):470-475. Not sensitivity or specificity of an identified test
- Holopainen P, Mustalahti K, Uimari P et al. Candidate gene regions and genetic heterogeneity in gluten sensitivity. *Gut* 2001;48(5):696-701. Improper control group
- Honeyman M C, Harrison L C, Drummond B et al. Analysis of families at risk for insulin-dependent diabetes mellitus reveals that HLA antigens influence progression to clinical disease. *Molecular Medicine (Cambridge, Mass.)* 1995;1(5):576-582. Not sensitivity or specificity of an identified test
- Horejsi V, Nemeč M, Angelisova P. Characterization of seven new monoclonal antibodies against human DR, DR + DP and DQ1 +DQ3 antigens. *Tissue Antigens* 1986;28(5):288-297. Not sensitivity or specificity of an identified test
- Horikoshi T, Arany I, Rajaraman S et al. Isoforms of cathepsin D and human epidermal differentiation. *Biochimie* 1998;80(7):605-612. Not sensitivity or specificity of an identified test
- Horvath K, Mehta D I. Celiac disease--a worldwide problem. *Indian Journal of Pediatrics* 2000;67(10):757-763. Not sensitivity or specificity of an identified test
- Horvath K, Horn G, Bodanszky H et al. Disaccharidases in coeliac disease. *Acta Paediatrica Hungarica* 1983;24(2):131-136. Not sensitivity or specificity of an identified test
- Horvath K, Nagy L, Horn G et al. Intestinal mast cell and neutrophil chemotactic activity of serum following a single challenge with gluten in celiac children on a gluten-free diet. *Journal of Pediatric Gastroenterology and Nutrition* 1989;9(3):276-280. Not sensitivity or specificity of an identified test
- Horvath Karoly, Hill Ivor D. Anti-tissue transglutaminase antibody as the first line screening for celiac disease: good-bye antigliadin tests?. *American Journal of Gastroenterology* 2002;97(11):2702-2704. Review article
- Hosokawa K, Hosokawa H, Futamura S et al. Proteins of the cornified envelope. *Journal of Dermatology* 1992;19(11):744-748. Not sensitivity or specificity of an identified test

identified test

Houlston R S, Ford D. Genetics of coeliac disease. *Qjm - Monthly Journal of the Association of Physicians* 1996;89(10):737-743. Not sensitivity or specificity of an identified test

Houlston R S, Tomlinson I P, Ford D et al. Linkage analysis of candidate regions for coeliac disease genes. *Human Molecular Genetics* 1997;6(8):1335-1339. Not sensitivity or specificity of an identified test

Housseau F, Rouas-Freiss N, Benifla J-L et al. Reaction of peripheral-blood lymphocytes to the human chorionic gonadotropin beta sub-unit in patients with productive tumors. *Int J Cancer* 1995;63(5):633-638. Not sensitivity or specificity of an identified test

Hovdenak N. Prevalence and clinical picture of adult gluten-induced enteropathy in a Norwegian population. *Scandinavian Journal of Gastroenterology* 1980;15(4):401-404. Not sensitivity or specificity of an identified test

Hovdenak N, Hovlid E, Aksnes L et al. High prevalence of asymptomatic coeliac disease in Norway: a study of blood donors. *European Journal of Gastroenterology & Hepatology* 1999;11(2):185-187. Not sensitivity or specificity of an identified test

Hovell C J, Collett J A, Vautier G et al. High prevalence of coeliac disease in a population-based study from Western Australia: a case for screening?. *Medical Journal of Australia* 2001;175(5):247-250. Not sensitivity or specificity of an identified test

Howard M R, Turnbull A J, Morley P et al. A prospective study of the prevalence of undiagnosed coeliac disease in laboratory defined iron and folate deficiency. *J Clin Pathol* 2002;55(10):754-757. Not sensitivity or specificity of an identified test

Howat A J, Mcphie J L, Smith D A et al. Cavitation of mesenteric lymph nodes: A rare complication of coeliac disease, associated with a poor outcome. *Histopathology* 1995;27(4):349-354. Not sensitivity or specificity of an identified test

Howdle P D, Blair G E. Molecular biology and coeliac disease. *Gut* 1992;33(5):573-575. Not sensitivity or specificity of an identified test

Howdle P D, Bullen A W, Losowsky M S. Cell-mediated immunity to gluten within the small intestinal mucosa in coeliac disease. *Gut* 1982;23(2):115-122. Not sensitivity or specificity of an identified test

Howdle P D, Corazza G R, Bullen A W et al. In vitro diagnosis of coeliac disease: an assessment. *Gut* 1981;22(11):939-947. Not sensitivity or specificity of an identified test

Howell M D, Austin R K, Kelleher D et al. An HLA-D

region restriction fragment length polymorphism associated with celiac disease. *Journal of Experimental Medicine* 1986;164(1):333-338. Not sensitivity or specificity of an identified test

Howell M D, Smith J R, Austin R K et al. An extended HLA-D region haplotype associated with celiac disease. *Proc Natl Acad Sci U S A* 1988;85(1):222-226. Not sensitivity or specificity of an identified test

Howell W M, Jones D B. The role of human leucocyte antigen genes in the development of malignant disease. *J Clin Pathol Clin Mol Pathol* 1995;48(6):M302-M306. Not sensitivity or specificity of an identified test

Howell W M, Calder P C, Grimble R F. Symposium on 'nutrition in the post-genomic era'. Plenary session 4: Genetic variation and diet-related disease: Gene polymorphisms, inflammatory diseases and cancer. *Proc Nutr Soc* 2002;61(4):447-456. Not sensitivity or specificity of an identified test

Howell W M, Leung S T, Jones D B et al. HLA-DRB, -DQA, and -DQB polymorphism in celiac disease and enteropathy-associated T-cell lymphoma. Common features and additional risk factors for malignancy. *Human Immunology* 1995;43(1):29-37. Improper control group

Howell W, Martin Calder, Philip C et al. Gene polymorphisms, inflammatory diseases and cancer. *Proceedings of the Nutrition Society* 2002;61(4):447-456. Not sensitivity or specificity of an identified test

Hozyasz K K. Sex ratio variation in offspring of celiac women - Preliminary report. *Pediatr Wspolczesna* 2002;4(3):253-255. Not sensitivity or specificity of an identified test

Hudson D A, Anderson C M. A new experimental system for the study of the pathogenesis of coeliac disease. *Lancet* 1977;1(8010):511-512. Not sensitivity or specificity of an identified test

Huff Thomas, Otto Angela M, Muller Christian S G et al. Thymosin beta4 is released from human blood platelets and attached by factor XIIIa (transglutaminase) to fibrin and collagen. *Faseb Journal - Official Publication of the Federation of American Societies for Experimental Biology* 2002;16(7):691-696. Not sensitivity or specificity of an identified test

Hummel M, Bonifacio E, Stern M et al. Development of celiac disease-associated antibodies in offspring of parents with type I diabetes. *Diabetologia* 2000;43(8):1005-1011. Not sensitivity or specificity of an identified test

Hummel M, Ziegler A G, Bonifacio E. Type 1 diabetes mellitus, celiac disease and their association - Lessons from antibodies. *J Pediatr Endocrinol Metab* 2001;14(Suppl 1):607-610. Not sensitivity or specificity of an identified test

- Hummel Michael, Bonifacio Ezio, Naserke Heike E et al. Elimination of dietary gluten does not reduce titers of type 1 diabetes-associated autoantibodies in high-risk subjects. *Diabetes Care* 2002;25(7):1111-1116. Not sensitivity or specificity of an identified test
- Hunter I P, Ferguson M M, Scully C et al. Effects of dietary gluten elimination in patients with recurrent minor aphthous stomatitis and no detectable gluten enteropathy. *Oral Surg Oral Med Oral Pathol* 1993;75(5):595-598. Not sensitivity or specificity of an identified test
- Huq M I. A simple laboratory method for the diagnosis of *V. cholerae*. *Transactions of the Royal Society of Tropical Medicine and Hygiene* 1979;73(5):553-556. Not sensitivity or specificity of an identified test
- Huq M I, Sanyal S C, Samadi A R et al. Comparative behaviour of classical and El Tor biotypes of *Vibrio cholerae* 01 isolated in Bangladesh during 1982. *Journal of Diarrhoeal Diseases Research* 1983;1(1):5-9. Not sensitivity or specificity of an identified test
- Husby S. Normal immune responses to ingested foods. *Journal of Pediatric Gastroenterology and Nutrition* 2000;30(Suppl):s13-s19. Not sensitivity or specificity of an identified test
- Hussain G, Ali S, Iqbal M M et al. Study of coeliac disease in children. *J Coll Phys Surg Pak* 1999;9(2):81-84. Not sensitivity or specificity of an identified test
- Hwang K C, Gray C D, Sivasubramanian N et al. Interaction site of GTP binding Gh (transglutaminase II) with phospholipase C. *Journal of Biological Chemistry* 1995;270(45):27058-27062. Not sensitivity or specificity of an identified test
- Hyams J S, Treem W R, Justinich C J et al. Characterization of symptoms in children with recurrent abdominal pain: resemblance to irritable bowel syndrome. *Journal of Pediatric Gastroenterology and Nutrition* 1995;20(2):209-214. Not sensitivity or specificity of an identified test
- Iacono G, Carroccio A, Montalto G et al. Steatorrhea test after a standard fatty meal: a new simple and sensitive test to detect malabsorption. *Journal of Pediatric Gastroenterology and Nutrition* 1991;13(2):161-167. Not sensitivity or specificity of an identified test
- Iancu T, Elian E. The intestinal microvillus. Ultrastructural variability in coeliac disease and cow's milk intolerance. *Acta Paediatrica Scandinavica* 1976;65(1):65-73. Not sensitivity or specificity of an identified test
- Ichikawa S, Hatanaka H, Yuuki T et al. Solution structure of Der f 2, the major mite allergen for atopic diseases. *Journal of Biological Chemistry* 1998;273(1):356-360. Not sensitivity or specificity of an identified test
- Ichinose A, Hendrickson L E, Fujikawa K et al. Amino acid sequence of the a subunit of human factor XIII. *Biochemistry* 1986;25(22):6900-6906. Not sensitivity or specificity of an identified test
- Ide A, Eisenbarth G S. Genetic susceptibility in type 1 diabetes and its associated autoimmune disorders. *Rev Endocr Metab Disord* 2003;4(3):243-253. Not sensitivity or specificity of an identified test
- Ientile R, Merendino R A, Fabiano C et al. Polyamines are involved in retinoic acid-mediated induction of tissue transglutaminase in human peripheral blood monocytes. *Research Communications in Chemical Pathology and Pharmacology* 1992;77(3):313-326. Not sensitivity or specificity of an identified test
- Iijima Junko, Shiina Yoshio, Ohkoudo Mitsuki et al. Usefulness of Auto Cyto Fix (membrane filter method) for the application of immunohistochemistry. *Diagnostic Cytopathology* 2002;26(1):56-60. Not sensitivity or specificity of an identified test
- Iismaa S E. Structure and function of tissue transglutaminase. *Minerva Biotechnol* 2002;14(2):113-119. Not sensitivity or specificity of an identified test
- Ikaheimo I, Silvennoinen-Kassinen S, Tiilikainen A. HLA five-locus haplotypes in Finns. *Eur J Immunogenet* 1996;23(4):321-328. Not sensitivity or specificity of an identified test
- Ikaheimo I, Silvennoinen-Kassinen S, Karvonen J et al. Immunogenetic profile of psoriasis vulgaris: Association with haplotypes A2,B13,Cw6,DR7,DQA1\*0201 and A1,B17,Cw6,DR7,DQA1\*0201. *Arch Dermatol Res* 1996;288(2):63-67. Not sensitivity or specificity of an identified test
- Illingworth A L, Young J A, Johnson G D. Immunofluorescent staining of metastatic carcinoma cells in serous fluid with carcinoembryonic antibody, epithelial membrane antibody, AUA-1 and Ber-EP4. *Cytopathology - Official Journal of the British Society for Clinical Cytology* 1994;5(5):270-281. Not sensitivity or specificity of an identified test
- Illueca C, Llombart-Bosch A, Ferrando Cucarella J. Prognostic factors in Barrett's esophagus: an immunohistochemical and morphometric study of 120 cases. *Revista Espanola De Enfermedades Digestivas - Organo Oficial De La Sociedad Espanola De Patologia Digestiva* 2000;92(11):726-737. Not sensitivity or specificity of an identified test
- Ilonen J, Merivuori H, Reijonen H et al. Tumour necrosis factor-beta gene RFLP alleles in Finnish IDDM haplotypes. *Scand J Immunol* 1992;36(6):779-783. Not sensitivity or specificity of an identified test
- Iltanen S, Collin P, Korpela M et al. Celiac disease and markers of celiac disease latency in patients with primary Sjogren's syndrome. *American Journal of Gastroenterology*

- 1999;94(4):1042-1046. Improper control group
- Iltanen S, Holm K, Ashorn M et al. Changing jejunal gamma delta T cell receptor (TCR)-bearing intraepithelial lymphocyte density in coeliac disease. *Clinical and Experimental Immunology* 1999;117(1):51-55. Not sensitivity or specificity of an identified test
- Iltanen S, Rantala I, Laippala P et al. Expression of HSP-65 in jejunal epithelial cells in patients clinically suspected of coeliac disease. *Autoimmunity* 1999;31(2):125-132. Improper control group
- Indovina P, Megiorni F, Fontemaggi G et al. Absence of in vivo DNA-protein interactions in the DQA2 and DQB2 promoter regions. *Hum Immunol* 2001;62(5):504-508. Not sensitivity or specificity of an identified test
- Isaacson P, Wright D H. Intestinal lymphoma associated with malabsorption. *Lancet* 1978;1(8055):67-70. Not sensitivity or specificity of an identified test
- Isaacson P G. Relation between cryptic intestinal lymphoma and refractory sprue. *Lancet* 2000;356(9225):178-179. Not sensitivity or specificity of an identified test
- Isaacson P G. T-cell lymphoma: The real thing. *Gut* 1999;45(5):638-639. Not sensitivity or specificity of an identified test
- Isbell R G, Carlson H C, Hoffman H N. Roentgenologic-pathologic correlation in malabsorption syndromes. *American Journal of Roentgenology, Radium Therapy, and Nuclear Medicine* 1969;107(1):158-169. Not sensitivity or specificity of an identified test
- Ishido T, Mori N. Primary gastric plasmacytoma: a morphological and immunohistochemical study of five cases. *American Journal of Gastroenterology* 1992;87(7):875-878. Not sensitivity or specificity of an identified test
- Ivarsson A, Persson L A, Juto P et al. High prevalence of undiagnosed coeliac disease in adults: a Swedish population-based study. *Journal of Internal Medicine* 1999;245(1):63-68. Not sensitivity or specificity of an identified test
- Ivarsson S A, Carlsson A, Bredberg A et al. Prevalence of coeliac disease in Turner syndrome. *Acta Paediatrica (Oslo, Norway - 1992)* 1999;88(9):933-936. Not sensitivity or specificity of an identified test
- Iwaki T, Miyazono M, Hitosumatsu T et al. An immunohistochemical study of tissue transglutaminase in gliomas with reference to their cell dying processes. *American Journal of Pathology* 1994;145(4):776-781. Not sensitivity or specificity of an identified test
- Iwanczak F, Iwanczak B, Matusiewicz K et al. Assessment of serum antibodies against gliadin, endomysium and tissue transglutaminase in diagnosis of celiac disease in children. *Gastroenterol Pol* 2003; 10(4):323-328. Unable to obtain full article
- Jabbar A A. HLA and disease associations in Iraq. *Disease Markers* 1993;11(4):161-170. Not sensitivity or specificity of an identified test
- Jabbari M, Wild G, Goresky C A et al. Scalloped valvulae conniventes: an endoscopic marker of celiac sprue. *Gastroenterology* 1988;95(6):1518-1522. Not sensitivity or specificity of an identified test
- Jabri B, de Serre N P, Cellier C et al. Selective expansion of intraepithelial lymphocytes expressing the HLA-E-specific natural killer receptor CD94 in celiac disease. *Gastroenterology* 2000;118(5):867-879. Not sensitivity or specificity of an identified test
- Jackson D, Walker-Smith J A, Phillips A D. Passive diffusion in small intestinal mucosa in childhood. *Histopathology* 1982;6(6):689-702. Not sensitivity or specificity of an identified test
- Jaeger C, Hatziagelaki E, Petzoldt R et al. Comparative analysis of organ-specific autoantibodies and celiac disease--associated antibodies in type 1 diabetic patients, their first-degree relatives, and healthy control subjects. *Diabetes Care* 2001;24(1):27-32. Not sensitivity or specificity of an identified test
- Jafarzadeh A, Shokrgozar M A, Khoshnoodi J et al. Unresponsiveness to recombinant hepatitis B vaccine in healthy Iranian neonates: Association with HLA antigens. *Iran J Med Sci* 2002;27(2):51-55. Not sensitivity or specificity of an identified test
- Jagerstad M, Lindstrand K, Norden A et al. The folate conjugase activity of the intestinal mucosa in celiac disease. *Scandinavian Journal of Gastroenterology* 1974;9(3):255-259. Not sensitivity or specificity of an identified test
- Jalava T, Maki M, Martinen A et al. The in vitro response to human fibroblast-derived extracellular matrix proteins is restricted by specific HLA class II genes. Relevance for coeliac disease. *Hum Immunol* 1996;49(2):106-112. Not sensitivity or specificity of an identified test
- Jalkanen S, Saari S, Kalimo H et al. Lymphocyte migration into the skin: The role of lymphocyte homing receptor (CD44) and endothelial cell antigen (HECA-452). *J Invest Dermatol* 1990;94(6):786-792. Not sensitivity or specificity of an identified test
- James M W, Scott B B. Coeliac disease: the cause of the various associated disorders?. *European Journal of Gastroenterology & Hepatology* 2001;13(9):1119-1121. Not sensitivity or specificity of an identified test
- James M W, Scott B B. Evidence-based clinical medicine: Application of a diagnostic test using the example of

- coeliac disease. *Cme J Gastroenterol Hepatol Nutr* 2001;4(1):28-31. Not sensitivity or specificity of an identified test
- Janatkova I, Malic caron, Fu caron et al. Diagnostic asset of assessment of autoantibodies in gluten-sensitive enteropathy. *Epidemiol Mikrobiol Imunol* 2002;51(3):125-130. Not sensitivity or specificity of an identified test
- Janatuinen E K, Kempainen T A, Julkunen R J K et al. No harm from five year ingestion of oats in coeliac disease. *Gut* 2002;50(3):332-335. Not sensitivity or specificity of an identified test
- Janatuinen E K, Kempainen T A, Pikkarainen P H et al. Lack of cellular and humoral immunological responses to oats in adults with coeliac disease. *Gut* 2000;46(3):327-331. Not sensitivity or specificity of an identified test
- Janatuinen E K, Pikkarainen P H, Kempainen T A et al. A comparison of diets with and without oats in adults with celiac disease. *New England Journal of Medicine* 1995;333(16):1033-1037. Not sensitivity or specificity of an identified test
- Jansen Th T L A, Mulder C J J, Karssen P H Z et al. Epidemiological survey of the Dutch Coeliac Disease Society: An update 1992. *European Journal of Gastroenterology & Hepatology* 1993;5(2):73-78. Not sensitivity or specificity of an identified test
- Jansen J W, Haverkate F, Koopman J et al. Influence of factor XIIIa activity on human whole blood clot lysis in vitro. *Thrombosis and Haemostasis* 1987;57(2):171-175. Not sensitivity or specificity of an identified test
- Jansson Ulf H G, Kristiansson Bengt, Albertsson-Wikland Kerstin et al. Short-term gluten challenge in children with coeliac disease does not impair spontaneous growth hormone secretion. *Journal of Pediatric Endocrinology & Metabolism - Jpem* 2003;16(5):771-778. Not sensitivity or specificity of an identified test
- Jansson U, Johansson C. Down syndrome and celiac disease. *Journal of Pediatric Gastroenterology and Nutrition* 1995;21(4):443-445. Not sensitivity or specificity of an identified test
- Jansson U H, Gudjonsdottir A H, Ryd W et al. Two different doses of gluten show a dose-dependent response of enteropathy but not of serological markers during gluten challenge in children with coeliac disease. *Acta Paediatrica (Oslo, Norway - 1992)* 2001;90(3):255-259. Not sensitivity or specificity of an identified test
- Jarnik M, Kartasova T, Steinert P M et al. Differential expression and cell envelope incorporation of small proline-rich protein 1 in different cornified epithelia. *Journal of Cell Science* 1996;109(Pt 6):1381-1391. Not sensitivity or specificity of an identified test
- Jarvinen Teea T, Kaukinen Katri, Laurila Kaija et al. Intraepithelial lymphocytes in celiac disease. *American Journal of Gastroenterology* 2003;98(6):1332-1337. Unable to extract data
- Jaskowski T D, Schroder C, Martins T B et al. IgA antibodies against endomysium and transglutaminase: a comparison of methods. *Journal of Clinical Laboratory Analysis* 2001;15(3):108-111. Improper control group
- Jeffries G H, Steinberg H, Sleisenger M H. Chronic ulcerative (nongranulomatous) jejunitis. *American Journal of Medicine* 1968;44(1):47-59. Not sensitivity or specificity of an identified test
- Jeitner T M, Bogdanov M B, Matson W R et al. N(epsilon)-(gamma-L-glutamyl)-L-lysine (GGEL) is increased in cerebrospinal fluid of patients with Huntington's disease. *Journal of Neurochemistry* 2001;79(5):1109-1112. Not sensitivity or specificity of an identified test
- Jelinkova L, Tuckova L, Sanchez D et al. Increased levels of circulating ICAM-1, E-selectin, and IL-2 receptors in celiac disease. *Digestive Diseases and Sciences* 2000;45(2):398-402. Not sensitivity or specificity of an identified test
- Jenkins D J A, Taylor R H, Wolever T M S. The diabetic diet, dietary carbohydrate and differences in digestibility. *Diabetologia* 1982;23(6):477-484. Not sensitivity or specificity of an identified test
- Jenkins D, Goodall A, Scott B. T-cell and plasma cell populations in coeliac small intestinal mucosa in relation to dermatitis herpetiformis. *Gut* 1989;30(7):955-958. Not sensitivity or specificity of an identified test
- Jenkins D, Goodall A, Scott B B. T-lymphocyte populations in normal and coeliac small intestinal mucosa defined by monoclonal antibodies. *Gut* 1986;27(11):1330-1337. Not sensitivity or specificity of an identified test
- Jennings J S R, Howdle P D. Celiac disease. *Curr Opin Gastroenterol* 2001;17(2):118-126. Not sensitivity or specificity of an identified test
- Jennings J S R, Howdle P D. New developments in celiac disease. *Curr Opin Gastroenterol* 2003;19(2):118-129. Not sensitivity or specificity of an identified test
- Jennings W, Rowland R, Hecker R. The significance of lowered jejunal disaccharidase levels. *Australian and New Zealand Journal of Medicine* 1976;6(6):556-560. Not sensitivity or specificity of an identified test
- Jensen K, Sollid L M, Scott H et al. Gliadin-specific T cell responses in peripheral blood of healthy individuals involve T cells restricted by the coeliac disease associated DQ2 heterodimer. *Scandinavian Journal of Immunology* 1995;42(1):166-170. Not sensitivity or specificity of an identified test
- Jensen M L, Johansen P. Immunocytochemical staining of

- smears and corresponding cell blocks from serous effusions: a follow-up and comparative investigation. *Diagnostic Cytopathology* 1996;15(1):33-36. Not sensitivity or specificity of an identified test
- Jensen P H, Lorand L, Ebbesen P et al. Type-2 plasminogen-activator inhibitor is a substrate for trophoblast transglutaminase and factor XIIIa. Transglutaminase-catalyzed cross-linking to cellular and extracellular structures. *European Journal of Biochemistry / Febs* 1993;214(1):141-146. Not sensitivity or specificity of an identified test
- Jeong J M, Murthy S N, Radek J T et al. The fibronectin-binding domain of transglutaminase. *Journal of Biological Chemistry* 1995;270(10):5654-5658. Not sensitivity or specificity of an identified test
- Jeppesen P B, Mortensen P B. The influence of a preserved colon on the absorption of medium chain fat in patients with small bowel resection. *Gut* 1998;43(4):478-483. Not sensitivity or specificity of an identified test
- Jessen B A, Phillips M A, Hovnanian A et al. Role of Sp1 response element in transcription of the human transglutaminase 1 gene. *Journal of Investigative Dermatology* 2000;115(1):113-117. Not sensitivity or specificity of an identified test
- Jessurun J, Yardley J H, Giardiello F M et al. Chronic colitis with thickening of the subepithelial collagen layer (collagenous colitis): histopathologic findings in 15 patients. *Human Pathology* 1987;18(8):839-848. Not sensitivity or specificity of an identified test
- Jevon G P, Dimmick J E, Dohil R et al. Spectrum of gastritis in celiac disease in childhood. *Pediatric and Developmental Pathology - the Official Journal of the Society for Pediatric Pathology and the Paediatric Pathology Society* 1999;2(3):221-226. Not sensitivity or specificity of an identified test
- Jewell D P. Celiac disease. *Canadian Journal of Gastroenterology = Journal Canadien De Gastroenterologie* 2000;14(8):665-666. Not sensitivity or specificity of an identified test
- Jiang H, Kochhar D M. Induction of tissue transglutaminase and apoptosis by retinoic acid in the limb bud. *Teratology* 1992;46(4):333-340. Not sensitivity or specificity of an identified test
- Jing Y, Waxman S, Lopez R. The cellular retinoic acid binding protein II is a positive regulator of retinoic acid signaling in breast cancer cells. *Cancer Research* 1997;57(9):1668-1672. Not sensitivity or specificity of an identified test
- Jiskra J, Limanova Z, Vanic caron et al. IgA and IgG antigliadin, IgA anti-tissue transglutaminase and antiendomysial antibodies in patients with autoimmune thyroid diseases and their relationship to thyroidal replacement therapy. *Physiol Res* 2003;52(1):79-88. Not sensitivity or specificity of an identified test
- Jodl J, Stepan J, Lojda Z. Diagnostic significance of determination of serum alkaline phosphatase intestinal isoenzyme activity in coeliac sprue in childhood. *Acta Universitatis Carolinae. Medica. Monographia* 1977;78 Pt 265-70. Not sensitivity or specificity of an identified test
- Johansen B H, Buus S, Vartdal F et al. Binding of peptides to HLA-DQ molecules: peptide binding properties of the disease-associated HLA-DQ(alpha 1\*0501, beta 1\*0201) molecule. *International Immunology* 1994;6(3):453-461. Not sensitivity or specificity of an identified test
- Johansen B H, Gjertsen H A, Vartdal F et al. Binding of peptides from the N-terminal region of alpha-gliadin to the celiac disease-associated HLA-DQ2 molecule assessed in biochemical and T cell assays. *Clinical Immunology and Immunopathology* 1996;79(3):288-293. Not sensitivity or specificity of an identified test
- Johansen B H, Jensen T, Thorpe C J et al. Both alpha and beta chain polymorphisms determine the specificity of the disease-associated HLA-DQ2 molecules, with beta chain residues being most influential. *Immunogenetics* 1996;45(2):142-150. Not sensitivity or specificity of an identified test
- Johansen B H, Vartdal F, Eriksen J A et al. Identification of a putative motif for binding of peptides to HLA-DQ2. *International Immunology* 1996;8(2):177-182. Not sensitivity or specificity of an identified test
- Johansson L, Andersson C, Albin M. Immunohistochemical study of 158 lung carcinomas. *Apmis - Acta Pathologica, Microbiologica, Et Immunologica Scandinavica* 1992;100(10):914-921. Not sensitivity or specificity of an identified test
- Johansson S, Lie B A, Cambon-Thomsen A et al. No evidence of type 1 diabetes susceptibility genes in the region centromeric of the HLA complex. *Hum Immunol* 2003;64(10):951-959. Not sensitivity or specificity of an identified test
- Johansson S, Lie B A, Pociot F et al. HLA associations in type 1 diabetes: DPB1 alleles may act as markers of other HLA-complex susceptibility genes. *Tissue Antigens* 2003;61(5):344-351. Not sensitivity or specificity of an identified test
- Johnson G V W, Bailey C D C, Tucholski J et al. Tissue transglutaminase in neurodegenerative diseases. *Minerva Biotechnol* 2002;14(2):171-176. Not sensitivity or specificity of an identified test
- Johnson G V, Cox T M, Lockhart J P et al. Transglutaminase activity is increased in Alzheimer's disease brain. *Brain Research* 1997;751(2):323-329. Not sensitivity or specificity of an identified test

- Johnson K, Hashimoto S, Lotz M et al. Interleukin-1 induces pro-mineralizing activity of cartilage tissue transglutaminase and factor XIIIa. *American Journal of Pathology* 2001;159(1):149-163. Not sensitivity or specificity of an identified test
- Johnson T N, Tanner M S, Taylor C J et al. Enterocytic CYP3A4 in a paediatric population: Developmental changes and the effect of coeliac disease and cystic fibrosis. *Br J Clin Pharmacol* 2001;51(5):451-460. Not sensitivity or specificity of an identified test
- Johnson T S, El Koraie A F, Skill N J et al. Tissue transglutaminase and the progression of human renal scarring. *J Am Soc Nephrol* 2003;14(8):2052-2062. Not sensitivity or specificity of an identified test
- Johnson T S, Griffin M, Thomas G L et al. The role of transglutaminase in the rat subtotal nephrectomy model of renal fibrosis. *J Clin Invest* 1997;99(12):2950-2960. Not sensitivity or specificity of an identified test
- Johnson T S, Knight C R, el Alaoui S et al. Transfection of tissue transglutaminase into a highly malignant hamster fibrosarcoma leads to a reduced incidence of primary tumour growth. *Oncogene* 1994;9(10):2935-2942. Not sensitivity or specificity of an identified test
- Johnston C F, Bell P M, Collins B J et al. Reassessment of enteric endocrine cell hyperplasia in celiac disease. *Hepato-Gastroenterology* 1988;35(6):285-288. Unable to extract data
- Johnston S D, Watson R G P. Small bowel lymphoma in unrecognized coeliac disease: A cause for concern?. *European Journal of Gastroenterology & Hepatology* 2000;12(6):645-648. Not sensitivity or specificity of an identified test
- Johnston S D, Peter Watson R G, McMillan S A. Soda bread provocation test for subjects with transient serology for coeliac disease 3 years after a population screening survey. *European Journal of Gastroenterology & Hepatology* 2000;12(9):1013-1015. Not sensitivity or specificity of an identified test
- Johnston S D, Ritchie C, Robinson J. Application of red cell distribution width to screening for coeliac disease in insulin-dependent diabetes mellitus. *Irish Journal of Medical Science* 1999;168(3):167-170. Not sensitivity or specificity of an identified test
- Johnston S D, Smye M, Watson R P. Intestinal permeability tests in coeliac disease. *Clinical Laboratory* 2001;47(3-4):143-150. Not sensitivity or specificity of an identified test
- Johnston S D, Watson R G, McMillan S A et al. Serological markers for coeliac disease: changes with time and relationship to enteropathy. *European Journal of Gastroenterology & Hepatology* 1998;10(3):259-264. Not sensitivity or specificity of an identified test
- Johnston S D, Watson R G, McMillan S A et al. Preliminary results from follow-up of a large-scale population survey of antibodies to gliadin, reticulinal and endomysium. *Acta paediatrica (Oslo, Norway : 1992).Supplement.* 1996;41261-64. Not sensitivity or specificity of an identified test
- Johnston S D, Watson R G, McMillan S A et al. Coeliac disease detected by screening is not silent--simply unrecognized. *Qjm - Monthly Journal of the Association of Physicians* 1998;91(12):853-860. Not sensitivity or specificity of an identified test
- Johnston S D, Watson R G, Middleton D et al. Genetic, morphometric and immunohistochemical markers of latent coeliac disease. *European Journal of Gastroenterology & Hepatology* 1999;11(11):1283-1288. Unable to extract data
- Johnston Simon D, McMillan Stanley A, Collins John S et al. A comparison of antibodies to tissue transglutaminase with conventional serological tests in the diagnosis of coeliac disease. *European Journal of Gastroenterology & Hepatology* 2003;15(9):1001-1004. Improper control group
- Jois J, Omagari K, Rowley M J et al. Enzyme inhibitory antibody to pyruvate dehydrogenase: diagnostic utility in primary biliary cirrhosis. *Annals of Clinical Biochemistry* 2000;37(Pt 1):67-73. Not sensitivity or specificity of an identified test
- Jokinen J, Peters U, Maki M et al. Celiac sprue in patients with chronic oral mucosal symptoms. *Journal of Clinical Gastroenterology* 1998;26(1):23-26. Not sensitivity or specificity of an identified test
- Jonas A. Significance of HLA expression in the mucosa of patients with active celiac disease. *Journal of Pediatric Gastroenterology and Nutrition* 1987;6(5):821-822. Not sensitivity or specificity of an identified test
- Jones J G, Elmes M E. The measurement of mucosal non-myelinated nerve fibre area and endocrine cell area in coeliac disease using morphometric analysis. *Diagnostic Histopathology / Published in Association With the Pathological Society of Great Britain and Ireland* 1982;5(3):183-188. Not sensitivity or specificity of an identified test
- Jones P E, Gleeson M H. Mucosal ulceration and mesenteric lymphadenopathy in coeliac disease. *British Medical Journal* 1973;3(5873):212-213. Not sensitivity or specificity of an identified test
- Jones P E, Peters T J. DNA synthesis by jejunal mucosa in responsive and non-responsive coeliac disease. *British Medical Journal* 1977;1(6069):1130-1131. Not sensitivity or specificity of an identified test
- Jones P E, L'Hirondel C L, Peters T J. Protein synthesis by cultured jejunal mucosa from control subjects and patients with coeliac disease. *Gut* 1981;22(8):623-627. Not

sensitivity or specificity of an identified test

Jones P E, L'Hirondel C, Peters T J. Alkaline phosphatase synthesis and properties of subcellular organelles during in vitro culture of jejunal biopsies from control subjects and patients with coeliac disease. *Gut* 1982;23(2):108-114. Not sensitivity or specificity of an identified test

Jones P E, Pallis C, Peters T J. Morphological and biochemical findings in jejunal biopsies from patients with multiple sclerosis. *Journal of Neurology, Neurosurgery, and Psychiatry* 1979;42(5):402-406. Not sensitivity or specificity of an identified test

Jones R A, Nicholas B, Mian S et al. Reduced expression of tissue transglutaminase in a human endothelial cell line leads to changes in cell spreading, cell adhesion and reduced polymerisation of fibronectin. *Journal of Cell Science* 1997;110(Pt 19):2461-2472. Not sensitivity or specificity of an identified test

Jordan S C, Sakai R S, Ettenger R B et al. Characterization of soluble circulating immune complexes by antigen-specific dissociation. Detection in the Raji cell radioimmune assay. *Clin Immunol Immunopathol* 1983;27(3):357-368. Not sensitivity or specificity of an identified test

Jos J, Labbe F. Ultrastructural localization of IgA globulins in normal and coeliac intestinal mucosa using immunoenzymatic methods. *Biomedicine / Publiee Pour L'a.a.i.c.i.g* 1976;24(6):425-434. Not sensitivity or specificity of an identified test

Jos J, Labbe F, Geny B et al. Immunoelectron-microscopic localization of immunoglobulin A and secretory component in jejunal mucosa from children with coeliac disease. *Scandinavian Journal of Immunology* 1979;9(5):441-450. Not sensitivity or specificity of an identified test

Jos J, Lenoir G, Ritis G et al. In vitro pathogenetic studies of coeliac disease. Effects of protein digests on coeliac intestinal biopsy specimens maintained in culture for 48 hours. *Scandinavian Journal of Gastroenterology* 1975;10(2):121-128. Not sensitivity or specificity of an identified test

Joseph B, Lefebvre O, Mereau-Richard C et al. Evidence for the involvement of both retinoic acid receptor- and retinoic X receptor-dependent signaling pathways in the induction of tissue transglutaminase and apoptosis in the human myeloma cell line RPMI 8226. *Blood* 1998;91(7):2423-2432. Not sensitivity or specificity of an identified test

Joseph Bertrand, Marchetti Philippe, Lefebvre Olga et al. The novel retinoid AHPN/CD437 induces a rapid but incomplete apoptotic response in human myeloma cells. *Biochimica Et Biophysica Acta* 2003;1593(2-3):277-282. Not sensitivity or specificity of an identified test

Juventino L P, Stock W, Lane N J et al. Certain HLA

antigens are associated with specific morphologic and cytogenetic subsets of acute myeloid leukemia. *Leukemia* 1995;9(3):433-439. Not sensitivity or specificity of an identified test

Juby L D, Dixon M F, Axon A T. Abnormal intestinal permeability and jejunal morphometry. *Journal of Clinical Pathology* 1987;40(7):714-718. Not sensitivity or specificity of an identified test

Juby L D, Rothwell J, Axon A T. Cellobiose/mannitol sugar test--a sensitive tubeless test for coeliac disease: results on 1010 unselected patients. *Gut* 1989;30(4):476-480. Not sensitivity or specificity of an identified test

Juby L D, Rothwell J, Axon A T. Lactulose/mannitol test: an ideal screen for celiac disease. *Gastroenterology* 1989;96(1):79-85. Not sensitivity or specificity of an identified test

Julkunen H, Siren M-K, Kaaja R et al. Maternal HLA antigens and antibodies to SS-A/RO and SS-B/LA. Comparison with systemic lupus erythematosus and primary Sjogren's syndrome. *Br J Rheumatol* 1995;34(10):901-907. Not sensitivity or specificity of an identified test

Jung G, Fleckenstein B, von der et al. From combinatorial libraries to MHC ligand motifs, T-cell superagonists and antagonists. *Biologicals - Journal of the International Association of Biological Standardization* 2001;29(3-4):179-181. Not sensitivity or specificity of an identified test

Junn Eunsung, Ronchetti Ruben D, Quezado Martha M et al. Tissue transglutaminase-induced aggregation of alpha-synuclein: Implications for Lewy body formation in Parkinson's disease and dementia with Lewy bodies. *Proceedings of the National Academy of Sciences of the United States of America* 2003;100(4):2047-2052. Not sensitivity or specificity of an identified test

Jurado A, Cardaba B, Jara P et al. Autoimmune hepatitis type 2 and hepatitis C virus infection: Study of HLA antigens. *J Hepatol* 1997;26(5):983-991. Not sensitivity or specificity of an identified test

Jurgensen K, Aeschlimann D, Cavin V et al. A new biological glue for cartilage-cartilage interfaces: Tissue transglutaminase. *J Bone Jt Surg Ser A* 1997;79(2):185-193. Not sensitivity or specificity of an identified test

Just J J. Genetic predisposition to HIV-1 infection and acquired immune deficiency virus syndrome: A review of the literature examining associations with HLA. *Hum Immunol* 1995;44(3):156-169. Not sensitivity or specificity of an identified test

Juto P, Fredrikzon B, Hernell O. Gliadin-specific serum immunoglobulins A, E, G, and M in childhood: relation to small intestine mucosal morphology. *Journal of Pediatric Gastroenterology and Nutrition* 1985;4(5):723-729. Not

sensitivity or specificity of an identified test

Kaczmarek E, Liu Y, Berse B et al. Biosynthesis of plasma factor XIII: evidence for transcription and translation in hepatoma cells. *Biochimica Et Biophysica Acta* 1995;1247(1):127-134. Not sensitivity or specificity of an identified test

Kaczmarek M. The disaccharidase activity of jejunal mucosa in children with malabsorption syndrome caused by food intolerance. *Roczniki Akademii Medycznej W Bialymstoku* (1995) 1995;40(3):504-511. Not sensitivity or specificity of an identified test

Kadokawa Y, Omagari K, Hazama H et al. Evaluation of newly developed ELISA using "MESACUP-2 Test Mitochondrial M2" kit for the diagnosis of primary biliary cirrhosis. *Clin Biochem* 2003;36(3):203-210. Not sensitivity or specificity of an identified test

Kadunce D P, McMurry M P, Avots-Avotins A et al. The effect of an elemental diet with and without gluten on disease activity in dermatitis herpetiformis. *Journal of Investigative Dermatology* 1991;97(2):175-182. Not sensitivity or specificity of an identified test

Kadunce D P, Meyer L J, Zone J J. IgA class antibodies in dermatitis herpetiformis: reaction with tissue antigens. *Journal of Investigative Dermatology* 1989;93(2):253-258. Not sensitivity or specificity of an identified test

Kagnoff M F. Coeliac disease: genetic, immunological and environmental factors in disease pathogenesis. *Scandinavian Journal of Gastroenterology*. Supplement 1985;11445-54. Not sensitivity or specificity of an identified test

Kagnoff M F. Immunopathogenesis of celiac disease. *Immunological Investigations* 1989;18(1-4):499-508. Not sensitivity or specificity of an identified test

Kagnoff M F. Understanding the molecular basis of coeliac disease. *Gut* 1990;31(5):497-499. Not sensitivity or specificity of an identified test

Kagnoff M F, Harwood J I, Bugawan T L et al. Structural analysis of the HLA-DR, -DQ, and -DP alleles on the celiac disease-associated HLA-DR3 (DRw17) haplotype. *Proceedings of the National Academy of Sciences of the United States of America* 1989;86(16):6274-6278. Not sensitivity or specificity of an identified test

Kagnoff M F, Weiss J B, Brown R J et al. Immunoglobulin allotype markers in gluten-sensitive enteropathy. *Lancet* 1983;1(8331):952-953. Not sensitivity or specificity of an identified test

Kagnoff Martin F. Celiac disease pathogenesis: the plot thickens. *Gastroenterology* 2002;123(3):939-943. Not sensitivity or specificity of an identified test

Kahn H J, Fekete E, From L. Tenascin differentiates

dermatofibroma from dermatofibrosarcoma protuberans: comparison with CD34 and factor XIIIa. *Human Pathology* 2001;32(1):50-56. Not sensitivity or specificity of an identified test

Kainulainen H, Rantala I, Collin P et al. Blisters in the small intestinal mucosa of coeliac patients contain T cells positive for cyclooxygenase 2. *Gut* 2002;50(1):84-89. Not sensitivity or specificity of an identified test

Kakar S, Nehra V, Murray J A et al. Significance of intraepithelial lymphocytosis in small bowel biopsy samples with normal mucosal architecture. *American Journal of Gastroenterology* 2003;98(9):2027-2033. Not sensitivity or specificity of an identified test

Kalapesi Z, Rees J P R. Coeliac disease in schoolchildren. *Ir Med J* 1978;71(6):188-191. Not sensitivity or specificity of an identified test

Kallikorm R, Uibo O, Uibo R. Coeliac disease in spondyloarthropathy: usefulness of serological screening. *Clinical Rheumatology* 2000;19(2):118-122. Not sensitivity or specificity of an identified test

Kalogeropoulos C D, Spyrou P, Stefanidou M I et al. Anticardiolipin antibodies and occlusive vascular disease of the eye: prospective study. *Documenta Ophthalmologica*. *Advances in Ophthalmology* 1998;95(2):109-120. Not sensitivity or specificity of an identified test

Kandel L B, Whyard T C, Gonder M J. Monoclonal antibody identification of a potentially lithogenic protein extracted from human renal calculi. *Journal of Stone Disease* 1992;4(4):283-288. Not sensitivity or specificity of an identified test

Kanerud L, Engstrom G N, Tarkowski A. Evidence for differential effects of sulphasalazine on systemic and mucosal immunity in rheumatoid arthritis. *Annals of the Rheumatic Diseases* 1995;54(4):256-262. Not sensitivity or specificity of an identified test

Kanitakis J, Roca-Miralles M. Factor-XIIIa-expressing dermal dendrocytes in Kaposi's sarcoma. A comparison between classical and immunosuppression-associated types. *Virchows Archiv.A, Pathological Anatomy and Histopathology* 1992;420(3):227-231. Not sensitivity or specificity of an identified test

Kanungo A, Samal K C, Sanjeevi C B. Molecular mechanisms involved in the etiopathogenesis of malnutrition-modulated diabetes mellitus. *Annals of the New York Academy of Sciences* 2002;958:138-143. Not sensitivity or specificity of an identified test

Kanungo A, Shtauvere-Brameus A, Samal K C et al. Autoantibodies to tissue transglutaminase in patients from eastern India with malnutrition-modulated diabetes mellitus, insulin-dependent diabetes mellitus, and non-insulin-dependent diabetes mellitus. *Annals of the New*

- York Academy of Sciences 2002;958232-234. Not sensitivity or specificity of an identified test
- Kapadia C. The reliability of noninvasive tests for celiac disease. *Gastroenterology* 1995;108(2):608-610. Review article
- Kapuscinska A, Zalewski T, Chorzelski T P et al. Disease specificity and dynamics of changes in IgA class anti-endomysial antibodies in celiac disease. *Journal of Pediatric Gastroenterology and Nutrition* 1987;6(4):529-534. Improper control group
- Karagen L, Cinnamon Y, Ginsburg M et al. Origin of primordial germ cells in the prestreak chick embryo. *Dev Genet* 1996;19(4):290-301. Not sensitivity or specificity of an identified test
- Karagiannis J A, Priddle J D, Jewell D P. Cell-mediated immunity to a synthetic gliadin peptide resembling a sequence from adenovirus 12. *Lancet* 1987;1(8538):884-886. Not sensitivity or specificity of an identified test
- Karagiozoglou-Lampoudi T, Nousia-Arvanitaki S, Augoustidou-Savopoulou P et al. Insulin secretion decline unrelated to jejunal morphology or exocrine pancreatic function in children with celiac disease. *J Pediatr Endocrinol Metab* 1996;9(6):585-591. Not sensitivity or specificity of an identified test
- Karban A, Lerner A, Shapiro S. Th1/Th2 cytokine profile in celiac disease. *Israel Journal of Medical Sciences* 1997;33(3):209-214. Not sensitivity or specificity of an identified test
- Karczewska K, Lukasik M, Kasner J et al. Familial occurrence of celiac disease and isolated immunoglobulin A deficiency. *Med Sci Monit* 1998;4(5):836-839. Not sensitivity or specificity of an identified test
- Karell K, Holopainen P, Mustalahti K et al. Not all HLA DR3 DQ2 haplotypes confer equal susceptibility to coeliac disease: transmission analysis in families. *Scandinavian Journal of Gastroenterology* 2002;37(1):56-61. Improper control group
- Karell K, Korponay-Szabo I, Szalai Zs et al. Genetic dissection between coeliac disease and dermatitis herpetiformis in sib pairs. *Annals of Human Genetics* 2002;66(Pt 5-6):387-392. Not sensitivity or specificity of an identified test
- Karell K, Louka A S, Moodie S J et al. HLA types in celiac disease patients not carrying the DQA1 \*05-DQB1 \*02 (DQ2) heterodimer: Results from the European genetics cluster on celiac disease. *Hum Immunol* 2003;64(4):469-477. Improper control group
- Kari J A, Sinnott P, Khan H et al. Familial steroid-responsive nephrotic syndrome and HLA antigens in Bengali children. *Pediatr Nephrol* 2001;16(4):346-349. Not sensitivity or specificity of an identified test
- Kariniemi A L, Forsman L, Wahlstrom T et al. Expression of differentiation antigens in mammary and extramammary Paget's disease. *British Journal of Dermatology* 1984;110(2):203-210. Not sensitivity or specificity of an identified test
- Karlsson I J, Dahl M G C, Marks J M. Absence of cutaneous IgA in coeliac disease without dermatitis herpetiformis. *Br J Dermatol* 1978;99(6):621-625. Not sensitivity or specificity of an identified test
- Karpati S, Burgin-Wolff A, Krieg T et al. Binding to human jejunum of serum IgA antibody from children with coeliac disease. *Lancet* 1990;336(8727):1335-1338. Not sensitivity or specificity of an identified test
- Karpati S, Kosnai I, Torok E et al. Immunoglobulin A deposition in jejunal mucosa of children with dermatitis herpetiformis. *J Invest Dermatol* 1988;91(4):336-339. Not sensitivity or specificity of an identified test
- Karpati S, Kosnai I, Verkasalo M et al. HLA antigens, jejunal morphology and associated diseases in children with dermatitis herpetiformis. *Acta Paediatrica Scandinavica* 1986;75(2):297-301. Not sensitivity or specificity of an identified test
- Karpati S, Meurer M, Stolz W et al. Ultrastructural binding sites of endomysium antibodies from sera of patients with dermatitis herpetiformis and coeliac disease. *Gut* 1992;33(2):191-193. Not sensitivity or specificity of an identified test
- Karpati S, Stolz W, Meurer M et al. Extracellular binding sites of IgA anti-jejunal antibodies on normal small bowel detected by indirect immunoelectronmicroscopy. *Journal of Investigative Dermatology* 1991;96(2):228-233. Not sensitivity or specificity of an identified test
- Karska K, Tuckova L, Steiner L et al. Calreticulin--the potential autoantigen in celiac disease. *Biochemical and Biophysical Research Communications* 1995;209(2):597-605. Not sensitivity or specificity of an identified test
- Kartasova T, Darwiche N, Kohno Y et al. Sequence and expression patterns of mouse SPR1: Correlation of expression with epithelial function. *Journal of Investigative Dermatology* 1996;106(2):294-304. Not sensitivity or specificity of an identified test
- Kashima K, Yokoyama S, Daa T et al. Immunohistochemical study on tissue transglutaminase and copper-zinc superoxide dismutase in human myocardium: its relevance to apoptosis detected by the nick end labelling method. *Virchows Archiv - an International Journal of Pathology* 1997;430(4):333-338. Not sensitivity or specificity of an identified test
- Kasner J, Karczewska K, Sulej J et al. Diagnostic value of tissue transglutaminase antibodies ((dagger)TG) in celiac

disease. *Pediatr Wspolczesna* 2002; 4(3):269-272. Unable to obtain full article

Katona E, Haramura G, Karpati L et al. A simple, quick one-step ELISA assay for the determination of complex plasma factor XIII (A2B2). *Thrombosis and Haemostasis* 2000;83(2):268-273. Not sensitivity or specificity of an identified test

Katz A J, Falchuk Z M. Definitive diagnosis of gluten-sensitive enteropathy. Use of an in vitro organ culture model. *Gastroenterology* 1978;75(4):695-700. Not sensitivity or specificity of an identified test

Katz A J, Falchuk Z M. Current concepts in gluten sensitive enteropathy (celiac sprue). *Pediatric Clinics of North America* 1975;22(4):767-785. Not sensitivity or specificity of an identified test

Katz A J, Falchuk Z M, Schwachman H. The coexistence of cystic fibrosis and celiac disease. *Pediatrics* 1976;57(5):715-721. Not sensitivity or specificity of an identified test

Katz A J, Falchuk Z M, Strober W et al. Gluten-sensitive enteropathy. Inhibition by cortisol of the effect of gluten protein in vitro. *New England Journal of Medicine* 1976;295(3):131-135. Not sensitivity or specificity of an identified test

Katz K D. Celiac Disease - Current Clinical Considerations in Treatment and Avoidance of Nutritional Deficiencies. *Today's Ther Trends* 2003;21(4):379-389. Not sensitivity or specificity of an identified test

Katz S I, Hall R P, Lawley T J et al. Dermatitis herpetiformis: the skin and the gut. *Annals of Internal Medicine* 1980;93(6):857-874. Not sensitivity or specificity of an identified test

Kaufmann H J. Chylous ascites and intestinal muscular hypertrophy occurring in the course of celiac sprue. *American Journal of Digestive Diseases* 1975;20(5):494-497. Not sensitivity or specificity of an identified test

Kaukinen K, Collin P, Holm K et al. Small-bowel mucosal inflammation in reticulon or gliadin antibody-positive patients without villous atrophy. *Scandinavian Journal of Gastroenterology* 1998;33(9):944-949. Improper control group

Kaukinen K, Collin P, Holm K et al. Wheat starch-containing gluten-free flour products in the treatment of coeliac disease and dermatitis herpetiformis. A long-term follow-up study. *Scandinavian Journal of Gastroenterology* 1999;34(2):163-169. Not sensitivity or specificity of an identified test

Kaukinen K, Collin P, Mykkanen A H et al. Celiac disease and autoimmune endocrinologic disorders. *Digestive*

*Diseases and Sciences* 1999;44(7):1428-1433. Not sensitivity or specificity of an identified test

Kaukinen K, Halme L, Collin P et al. Celiac disease in patients with severe liver disease: Gluten-free diet may reverse hepatic failure. *Gastroenterology* 2002;122(4):881-888. Not sensitivity or specificity of an identified test

Kaukinen K, Maki M, Partanen J et al. Celiac disease without villous atrophy: revision of criteria called for. *Digestive Diseases and Sciences* 2001;46(4):879-887. Unable to extract data

Kaukinen Katri, Partanen Jukka, Maki Markku et al. HLA-DQ typing in the diagnosis of celiac disease. *American Journal of Gastroenterology* 2002;97(3):695-699. Unable to extract data

Kaukinen Katri, Sulkanen Satu, Maki Markku et al. IgA-class transglutaminase antibodies in evaluating the efficacy of gluten-free diet in coeliac disease. *European Journal of Gastroenterology & Hepatology* 2002;14(3):311-315. Not sensitivity or specificity of an identified test

Kaur Gurvinder, Sarkar N, Bhatnagar S et al. Pediatric celiac disease in India is associated with multiple DR3-DQ2 haplotypes. *Human Immunology* 2002;63(8):677-682. Improper control group

Kavai M, Csorba S, Szabolcs M et al. Association of precipitins and coeliac disease. *Acta Allergologica* 1977;32(6):395-405. Not sensitivity or specificity of an identified test

Kavai M, Szabolcs M, Csorba S. Circulating antibodies in coeliac disease. *Acta Paediatr Acad Sci Hung* 1977;18(3-4):235-238. Not sensitivity or specificity of an identified test

Kavin H. Adult coeliac disease in South Africa. An analysis of 20 cases emphasizing atypical presentations. *S Afr Med J* 1981;59(18):628-632. Not sensitivity or specificity of an identified test

Kawabe S, Ikuta T, Ohba M et al. Cholesterol sulfate activates transcription of transglutaminase 1 gene in normal human keratinocytes. *Journal of Investigative Dermatology* 1998;111(6):1098-1102. Not sensitivity or specificity of an identified test

Kazerounian S, Aho S. Characterization of periphilin, a widespread, highly insoluble nuclear protein and potential constituent of the keratinocyte cornified envelope. *J Biol Chem* 2003;278(38):36707-36717. Not sensitivity or specificity of an identified test

Keating J, Bjarnason I, Somasundaram S et al. Intestinal absorptive capacity, intestinal permeability and jejunal histology in HIV and their relation to diarrhoea. *Gut* 1995;37(5):623-629. Not sensitivity or specificity of an identified test

- Kedzierska A. Immunogenetic aspects of coeliac disease in children. *Med Sci Monit* 1999;5(4):732-740. Not sensitivity or specificity of an identified test
- Kedzierska A, Turowski G. HLA class I haplotypes in families of children with coeliac disease. *Medical Science Monitor - International Medical Journal of Experimental and Clinical Research* 2000;6(2):336-341. Not sensitivity or specificity of an identified test
- Kedzierska A, Turowski G. HLA class I antigens in families with coeliac disease. *Medical Science Monitor - International Medical Journal of Experimental and Clinical Research* 2000;6(5):957-963. Not sensitivity or specificity of an identified test
- Keeling J W, Risdon R A. Proceedings: Quantitation of small intestinal biopsies from children. *Archives of Disease in Childhood* 1974;49(9):747. Not sensitivity or specificity of an identified test
- Kelleher D, Murphy A, Sheils O et al. Tyrosine phosphorylation in the human duodenum. *Gut* 1995;36(1):34-38. Not sensitivity or specificity of an identified test
- Kelly C P, Feighery C F, Gallagher R B et al. Diagnosis and treatment of gluten-sensitive enteropathy. *Advances in Internal Medicine* 1990;35:341-363. Not sensitivity or specificity of an identified test
- Kelly C P, Feighery C F, Gallagher R B et al. Mucosal and systemic IgA anti-gliadin antibody in celiac disease. Contrasting patterns of response in serum, saliva, and intestinal secretions. *Digestive Diseases and Sciences* 1991;36(6):743-751. Improper control group
- Kelly C P, O'Shea B, Kelly J. Atopy and childhood coeliac disease. *Lancet* 1987;2(8550):109. Not sensitivity or specificity of an identified test
- Kelly J, O'Farrelly C, Rees J P. alpha-Gliadin antibodies in childhood coeliac disease. *Lancet* 1985;2(8454):558-559. Not sensitivity or specificity of an identified test
- Kelly J, O'Farrelly C, O'Mahony C et al. Immunoperoxidase demonstration of the cellular composition of the normal and coeliac small bowel. *Clinical and Experimental Immunology* 1987;68(1):177-188. Not sensitivity or specificity of an identified test
- Kelly J, O'Farrelly C, Rees J P et al. Humoral response to alpha gliadin as serological screening test for coeliac disease. *Archives of Disease in Childhood* 1987;62(5):469-473. Serology <1990
- Kelly J, Weir D G, Feighery C. Differential expression of HLA-D gene products in the normal and coeliac small bowel. *Tissue Antigens* 1988;31(3):151-160. Not sensitivity or specificity of an identified test
- Kelly J, Whelan C A, Weir D G et al. Removal of endogenous peroxidase activity from cryostat sections for immunoperoxidase visualisation of monoclonal antibodies. *Journal of Immunological Methods* 1987;96(1):127-132. Not sensitivity or specificity of an identified test
- Kelly M H, Hamilton J R. A micro-technique for the assay of intestinal alkaline phosphatase. Results in normal children and in children with celiac disease. *Clinical Biochemistry* 1970;3(1):33-43. Not sensitivity or specificity of an identified test
- Kemeny D M, Urbanek R, Amlot P L et al. Sub-class of IgG in allergic disease. I. IgG sub-class antibodies in immediate and non-immediate food allergy. *Clinical Allergy* 1986;16(6):571-581. Not sensitivity or specificity of an identified test
- Kempainen T A, Kosma V M, Janatuinen E K et al. Nutritional status of newly diagnosed celiac disease patients before and after the institution of a celiac disease diet--association with the grade of mucosal villous atrophy. *American Journal of Clinical Nutrition* 1998;67(3):482-487. Not sensitivity or specificity of an identified test
- Kempainen T, Kroger H, Janatuinen E et al. Bone recovery after a gluten-free diet: A 5-year follow-up study. *Bone* 1999;25(3):355-360. Not sensitivity or specificity of an identified test
- Kennedy N P, Feighery C. Clinical features of coeliac disease today. *Biomedicine & Pharmacotherapy = Biomedecine & Pharmacotherapie* 2000;54(7):373-380. Not sensitivity or specificity of an identified test
- Keogh J P, Zirvi K A, Vossough S et al. Pharmacological alterations of cellular transglutaminase activity and invasiveness in human colorectal carcinoma cells. *Cancer Biochemistry Biophysics* 1993;13(3):209-220. Not sensitivity or specificity of an identified test
- Kepeczyk T, Kadakia S C. Prospective evaluation of gastrointestinal tract in patients with iron-deficiency anemia. *Digestive Diseases and Sciences* 1995;40(6):1283-1289. Not sensitivity or specificity of an identified test
- Kepeczyk T, Cremins J E, Long B D et al. A prospective, multidisciplinary evaluation of premenopausal women with iron-deficiency anemia. *American Journal of Gastroenterology* 1999;94(1):109-115. Not sensitivity or specificity of an identified test
- Kermabon C, Ehrhart A, Volant A et al. Antigliadin antibodies in rheumatoid arthritis. *Rev Rhum Engl Ed* 1993;60(3):157-161. Not sensitivity or specificity of an identified test
- Kerttula T O, Holm K, Partanen J et al. Circulating T lymphocyte subsets in coeliac disease (CoD) patients and healthy family members. *Clinical and Experimental Immunology* 1998;111(3):536-540. Not sensitivity or specificity of an identified test

- Kett K, Scott H, Fausa O et al. Secretory immunity in celiac disease: Cellular expression of immunoglobulin A subclass and joining chain. *Gastroenterology* 1990;99(2):386-392. Not sensitivity or specificity of an identified test
- Keuning J J, Pena A S, van Leeuwen A et al. HLA-DW3 associated with coeliac disease. *Lancet* 1976;1(7958):506-508. Not sensitivity or specificity of an identified test
- Keusch G T, Jacewicz M. Primary amines and chloroquine inhibit cytotoxic responses to Shigella toxin and permit late antibody rescue of toxin treated cells. *Biochemical and Biophysical Research Communications* 1984;121(1):69-76. Not sensitivity or specificity of an identified test
- Khosho V, Bhan M K, Arora N K. Gliadin antibodies for diagnosis of celiac disease. *Indian Journal of Pediatrics* 1984;51(413):669-670. Not sensitivity or specificity of an identified test
- Khosho V, Bhan M K, Puri S et al. Serum anti-gliadin antibody profile in childhood protracted diarrhoea due to coeliac disease and other causes in a developing country. *Scandinavian Journal of Gastroenterology* 1989;24(10):1212-1216. Serology <1990
- Khosho V, Bhan M K, Unsworth D J et al. Anti-reticulin antibodies: useful adjunct to histopathology in diagnosing celiac disease, especially in a developing country. *Journal of Pediatric Gastroenterology and Nutrition* 1988;7(6):864-866. Not sensitivity or specificity of an identified test
- Khulusi S, Rhodes J. Diagnostic dilemmas in colitis. *J R Coll Phys London* 1997;31(6):618-623. Not sensitivity or specificity of an identified test
- Kieffer M. Serum antibodies to gliadin and other cereal proteins in patients with coeliac disease and dermatitis herpetiformis. *Danish Medical Bulletin* 1985;32(5):251-262. Not sensitivity or specificity of an identified test
- Kieffer M, Barnetson R S. Increased gliadin antibodies in dermatitis herpetiformis and pemphigoid. *British Journal of Dermatology* 1983;108(6):673-678. Not sensitivity or specificity of an identified test
- Kieffer M, Barnetson StC R. What is the role of gliadin in bullous pemphigoid?. *Lancet* 1981;2(8250):806 Not sensitivity or specificity of an identified test
- Kieffer M, Barnetson R S, Blackwell J N. Sequential studies of gliadin antibodies in patients with dermatitis herpetiformis. *Archives of Dermatological Research* 1984;276(2):74-77. Not sensitivity or specificity of an identified test
- Kieffer M, Frazier P J, Daniels N W R. Serum antibodies (measured by MRSPA) to alcohol-soluble gliadins in adult celiac patients. *Journal of Immunological Methods* 1981;42(2):129-136. Not sensitivity or specificity of an identified test
- Kieslich M, Errazuriz G, Posselt H G et al. Brain white-matter lesions in celiac disease: a prospective study of 75 diet-treated patients. *Pediatrics* 2001;108(2):E21 Not sensitivity or specificity of an identified test
- Kiguchi K, Iwamori M, Yamanouchi S et al. Coexpression of cholesterol sulfate and cytokeratin as tumor markers in well-differentiated squamous cell carcinoma of the human uterine cervix. *Clinical Cancer Research - an Official Journal of the American Association for Cancer Research* 1998;4(12):2985-2990. Not sensitivity or specificity of an identified test
- Kilander A F, Dotevall G, Fallstrom S P et al. Evaluation of gliadin antibodies for detection of coeliac disease. *Scandinavian Journal of Gastroenterology* 1983;18(3):377-383. Serology <1990
- Kilander A F, Dotevall G, Lindstedt G et al. Plasma enteroglucagon related to malabsorption in coeliac disease. *Gut* 1984;25(6):629-635. Not sensitivity or specificity of an identified test
- Kilander A F, Gillberg R E, Kastrup W et al. Serum antibodies to gliadin and small-intestinal morphology in dermatitis herpetiformis. A controlled clinical study of the effect of treatment with a gluten-free diet. *Scandinavian Journal of Gastroenterology* 1985;20(8):951-958. Not sensitivity or specificity of an identified test
- Kilander A F, Nilsson L A, Gillberg R. Serum antibodies to gliadin in coeliac disease after gluten withdrawal. *Scandinavian Journal of Gastroenterology* 1987;22(1):29-34. Not sensitivity or specificity of an identified test
- Kilander A F, Stenhammar L, Lindstedt G et al. Determination of enteroglucagon in plasma for detection of celiac disease in children. *Clinical Chemistry* 1984;30(1):77-80. Not sensitivity or specificity of an identified test
- Kiljanski J I, Peele K, Stachura I et al. Antibodies against striated muscle, connective tissue and nuclear antigens in patients with thyroid-associated ophthalmopathy: Should Graves' disease be considered a collagen disorder?. *J Endocrinol Invest* 1997;20(10):585-591. Not sensitivity or specificity of an identified test
- Kilmartin C, Lynch S, Abuzakouk M et al. Avenin fails to induce a TH1 response in coeliac tissue following in vitro culture. *Gut* 2003;52(1):47-52. Not sensitivity or specificity of an identified test
- Kilpatrick Z M, Katz J. Occult celiac disease as a cause of iron deficiency anemia. *Jama - the Journal of the American Medical Association* 1969;208(6):999-1001. Not sensitivity or specificity of an identified test
- Kim H C, Idler W W, Kim I G et al. The complete amino acid sequence of the human transglutaminase K enzyme deduced from the nucleic acid sequences of cDNA clones.

- Journal of Biological Chemistry 1991;266(1):536-539. Not sensitivity or specificity of an identified test
- Kim H C, Nemes Z, Idler W W et al. Crystallization and preliminary X-ray analysis of human transglutaminase 3 from zymogen to active form. *Journal of Structural Biology* 2001;135(1):73-77. Not sensitivity or specificity of an identified test
- Kim Hyung, Rikihisa Yasuko. Roles of p38 mitogen-activated protein kinase, NF-kappaB, and protein kinase C in proinflammatory cytokine mRNA expression by human peripheral blood leukocytes, monocytes, and neutrophils in response to *Anaplasma phagocytophila*. *Infection and Immunity* 2002;70(8):4132-4141. Not sensitivity or specificity of an identified test
- Kim I G, Lee S C, Lee J H et al. Structure and organization of the human transglutaminase 3 gene: evolutionary relationship to the transglutaminase family. *Journal of Investigative Dermatology* 1994;103(2):137-142. Not sensitivity or specificity of an identified test
- Kim I G, McBride O W, Wang M et al. Structure and organization of the human transglutaminase 1 gene. *Journal of Biological Chemistry* 1992;267(11):7710-7717. Not sensitivity or specificity of an identified test
- Kim S Y, Chung S I, Yoneda K et al. Expression of transglutaminase 1 in human epidermis. *Journal of Investigative Dermatology* 1995;104(2):211-217. Not sensitivity or specificity of an identified test
- Kim S Y, Grant P, Lee J H et al. Differential expression of multiple transglutaminases in human brain. Increased expression and cross-linking by transglutaminases 1 and 2 in Alzheimer's disease. *Journal of Biological Chemistry* 1999;274(43):30715-30721. Not sensitivity or specificity of an identified test
- Kim Soo, Youl Jeitner, Thomas M et al. Transglutaminases in disease. *Neurochemistry International* 2002;40(1):85-103. Not sensitivity or specificity of an identified test
- Kim Soo, Jeong Eun, Steinert Peter M. IFN-gamma induces transglutaminase 2 expression in rat small intestinal cells. *Journal of Interferon & Cytokine Research - the Official Journal of the International Society for Interferon and Cytokine Research* 2002;22(6):677-682. Not sensitivity or specificity of an identified test
- Kim Y J, Park E S, Song K Y et al. Glutathione transferase (class pi) and tissue transglutaminase (Tgase C) expression in pterygia. *Korean Journal of Ophthalmology - Kjo* 1998;12(1):6-13. Not sensitivity or specificity of an identified test
- King A L, Ciclitira P J. Celiac disease: strongly heritable, oligogenic, but genetically complex. *Molecular Genetics and Metabolism* 2000;71(1-2):70-75. Not sensitivity or specificity of an identified test
- King A L, Fraser J S, Moodie S J et al. Coeliac disease: follow-up linkage study provides further support for existence of a susceptibility locus on chromosome 11p11. *Annals of Human Genetics* 2001;65(Pt 4):377-386. Not sensitivity or specificity of an identified test
- King A L, Yiannakou J Y, Brett P M et al. A genome-wide family-based linkage study of coeliac disease. *Annals of Human Genetics* 2000;64(Pt 6):479-490. Not sensitivity or specificity of an identified test
- Kingham J G, Parker D R. The association between primary biliary cirrhosis and coeliac disease: a study of relative prevalences. *Gut* 1998;42(1):120-122. Not sensitivity or specificity of an identified test
- Kirberg A, Latorre J J, Hartard M E. Endoscopic small intestinal biopsy in infants and children: its usefulness in the diagnosis of celiac disease and other enteropathies. *Journal of Pediatric Gastroenterology and Nutrition* 1989;9(2):178-181. Not sensitivity or specificity of an identified test
- Kirby J, Fielding J F. Very adult coeliac disease! The need for jejunal biopsy in the middle aged and elderly. *Irish Medical Journal* 1984;77(2):35-36. Not sensitivity or specificity of an identified test
- Kitahara A, Mikawa H, Ohtsuki H et al. Specific localization of tissue-type transglutaminase in adrenocorticotropin-producing cells of the human pituitary gland as demonstrated by immunohistochemistry. *Journal of Clinical Endocrinology and Metabolism* 1987;65(5):885-890. Not sensitivity or specificity of an identified test
- Kitis G, Lucas M L, Bishop H. Altered jejunal surface pH in coeliac disease: Its effect on propranolol and folic acid absorption. *Clin Sci* 1982;63(4):373-380. Not sensitivity or specificity of an identified test
- Klaeveman H L, Gebhard R L, Sessoms C et al. In vitro studies of ulcerative ileojejunitis. *Gastroenterology* 1975;68(3):572-582. Not sensitivity or specificity of an identified test
- Klein M R, Keet I P M, D'Amaro J et al. Associations between HLA frequencies and pathogenic features of human immunodeficiency virus type 1 infection in seroconverters from the Amsterdam cohort of homosexual men. *J Infect Dis* 1994;169(6):1244-1249. Not sensitivity or specificity of an identified test
- Kleinberg-Zissin R, Avigad S, Yahav J et al. Gluten-sensitive enteropathy: value of oral triglyceride loading test in the follow-up of patients on gluten challenge. *Israel Journal of Medical Sciences* 1983;19(4):319-324. Not sensitivity or specificity of an identified test
- Kleman J P, Aeschlimann D, Paulsson M et al. Transglutaminase-catalyzed cross-linking of fibrils of collagen V/XI in A204 rhabdomyosarcoma cells. *Biochemistry* 1995;34(42):13768-13775. Not sensitivity or specificity of an identified test

specificity of an identified test

Klemetti P, Savilahti E, Ilonen J et al. T-cell reactivity to wheat gluten in patients with insulin-dependent diabetes mellitus. *Scandinavian Journal of Immunology* 1998;47(1):48-53. Not sensitivity or specificity of an identified test

Klemola T. Immunohistochemical findings in the intestine of IgA-deficient persons: number of intraepithelial T lymphocytes is increased. *Journal of Pediatric Gastroenterology and Nutrition* 1988;7(4):537-543. Not sensitivity or specificity of an identified test

Klemola T, Savilahti E, Arato A et al. Immunohistochemical findings in jejunal specimens from patients with IgA deficiency. *Gut* 1995;37(4):519-523. Not sensitivity or specificity of an identified test

Klemola T, Savilahti E, Koskimies S et al. HLA antigens in IgA deficient paediatric patients. *Tissue Antigens* 1988;32(4):218-223. Not sensitivity or specificity of an identified test

Kluge F, Koch H K, Grosse-Wilde H et al. Follow-up of treated adult celiac disease: clinical and morphological studies. *Hepato-Gastroenterology* 1982;29(1):17-23. Not sensitivity or specificity of an identified test

Knight C J, Sandhu B K. The investigation of chronic diarrhoea. *Curr Paediatr* 2003;13(2):89-94. Not sensitivity or specificity of an identified test

Knight C R, Rees R C, Platts A et al. Interleukin-2-activated human effector lymphocytes mediate cytotoxicity by inducing apoptosis in human leukaemia and solid tumour target cells. *Immunology* 1993;79(4):535-541. Not sensitivity or specificity of an identified test

Knight R L, Hand D, Piacentini M et al. Characterization of the transglutaminase-mediated large molecular weight polymer from rat liver: Its relationship to apoptosis. *Eur J Cell Biol* 1993;60(1):210-216. Not sensitivity or specificity of an identified test

Knudtzon J, Fluge G, Aksnes L. Routine measurements of gluten antibodies in children of short stature. *Journal of Pediatric Gastroenterology and Nutrition* 1991;12(2):190-194. Not sensitivity or specificity of an identified test

Kobayashi H, Takahashi M, Takahashi H et al. CD4SUP+ T-cells from peripheral blood of a patient with psoriasis recognize keratin 14 peptide but not 'homologous' streptococcal M-protein epitope. *J Dermatol Sci* 2002;30(3):240-247. Not sensitivity or specificity of an identified test

Kocak N, Varzikoglu M, Yuce A et al. Celiac disease in childhood: Analysis of 41 cases. *Turk J Gastroenterol* 1997;8(2):201-205. Not sensitivity or specificity of an identified test

Kochanska-Dziurawicz A, Bukowska C. Estimation of serum beta-2-microglobulin in children with malabsorption disorders syndrome. *Journal of Gastroenterology* 1997;32(3):312-317. Not sensitivity or specificity of an identified test

Kockum I, Lernmark A, Dahlquist G et al. Genetic and immunological findings in patients with newly diagnosed insulin-dependent diabetes mellitus. The Swedish Childhood Diabetes Study Group and The Diabetes Incidence in Sweden Study (DISS) Group. *Hormone and Metabolic Research. Hormon- Und Stoffwechselforschung. Hormones Et Metabolisme* 1996;28(7):344-347. Not sensitivity or specificity of an identified test

Kocna P, Fric P, Tlaskalova H et al. Short-term cultivation of duodenal biopsies in patients with coeliac disease. Effect of gluten challenge and gliadin peptides. *Advances in Experimental Medicine and Biology* 1995;371b:1367-1370. Not sensitivity or specificity of an identified test

Kocna Petr, Vanickova Zdislava, Perusicova Jindriska et al. Tissue transglutaminase-serology markers for coeliac disease. *Clinical Chemistry and Laboratory Medicine - Cclm / Fescc* 2002;40(5):485-492. Improper control group

Koelle D M, Corey L, Burke R L et al. Antigenic specificities of human CD4sup + T-cell clones recovered from recurrent genital herpes simplex virus type 2 lesions. *J Virol* 1994;68(5):2803-2810. Not sensitivity or specificity of an identified test

Koelle D M, Johnson M L, Ekstrom A N et al. Preferential presentation of herpes simplex virus T-cell antigen by HLA DQA1\*0501/DQB1\*0201 in comparison to HLA DQA1\*0201/DQB1\*0201. *Human Immunology* 1997;53(2):195-205. Not sensitivity or specificity of an identified test

Kohl D, Ashkenazi A, Ben Shaul Y et al. Tight junctions of jejunal surface and crypt cells in celiac disease: a freeze-fracture study. *Journal of Pediatric Gastroenterology and Nutrition* 1987;6(1):57-65. Not sensitivity or specificity of an identified test

Koivisto V A, Kuitunen P, Tiilikainen A et al. HLA antigens in patients with juvenile diabetes mellitus, coeliac disease and both of the diseases. *Diabete & Metabolisme* 1977;3(1):49-53. Not sensitivity or specificity of an identified test

Koivisto V A, Kuitunen P, Tilikainen A et al. HLA antigens, especially B8 and BW15, in patients with juvenile diabetes mellitus, coeliac disease, and both of these diseases [proceedings]. *Diabete & Metabolisme* 1976;2(3):161. Not sensitivity or specificity of an identified test

Kojecky Z, Matlocha Z, Pelikan L. Disaccharidase and LDH isoenzymes of intestinal mucosa. Clinical experiences in children and adults. *Acta Univpalackiolomucfacmed*

- 1972;63(-):239-246. Not sensitivity or specificity of an identified test
- Kojima S, Inui T, Muramatsu H et al. Dimerization of midkine by tissue transglutaminase and its functional implication. *Journal of Biological Chemistry* 1997;272(14):9410-9416. Not sensitivity or specificity of an identified test
- Kojima S, Nara K, Rifkin D B. Requirement for transglutaminase in the activation of latent transforming growth factor-beta in bovine endothelial cells. *J Cell Biol* 1993;121(2):439-448. Not sensitivity or specificity of an identified test
- Kokkonen J, Haapalahti M, Laurila K et al. Cow's milk protein-sensitive enteropathy at school age. *Journal of Pediatrics* 2001;139(6):797-803. Not sensitivity or specificity of an identified test
- Kokkonen J, Holm K, Karttunen T J et al. Children with untreated food allergy express a relative increment in the density of duodenal gammadelta+ T cells. *Scandinavian Journal of Gastroenterology* 2000;35(11):1137-1142. Not sensitivity or specificity of an identified test
- Kokkonen J, Simila S, Vuolukka P. The incidence of coeliac disease and pyloric stenosis in children in Northern Finland. *Ann Clin Res* 1982;14(3):123-128. Not sensitivity or specificity of an identified test
- Kolacek S, Booth I W, Taylor C M. Food, mucosal immunity, and IgA nephropathy. *Journal of Pediatric Gastroenterology and Nutrition* 1990;11(2):175-178. Not sensitivity or specificity of an identified test
- Kolek A, Fischerova E, Kos V et al. Application of ELISA method to determine antigliadin antibodies in children with coeliac disease. *Acta Universitatis Palackianae Olomucensis Facultatis Medicae* 1989;122:183-192. Not sensitivity or specificity of an identified test
- Kolek A, Vospe caron, Her caron et al. Occurrence of coeliac disease in children with Down Syndrome in north Moravia, Czech Republic. *European Journal of Pediatrics* 2003;162(3):207-208. Not sensitivity or specificity of an identified test
- Koletzko S, Burgin-Wolff A, Koletzko B et al. Prevalence of coeliac disease in diabetic children and adolescents. A multicentre study. *European Journal of Pediatrics* 1988;148(2):113-117. Not sensitivity or specificity of an identified test
- Kolho K L, Farkkila M A, Savilahti E. Undiagnosed coeliac disease is common in Finnish adults. *Scandinavian Journal of Gastroenterology* 1998;33(12):1280-1283. Not sensitivity or specificity of an identified test
- Kolho K L, Tiitinen A, Tulppala M et al. Screening for coeliac disease in women with a history of recurrent miscarriage or infertility. *British Journal of Obstetrics and Gynaecology* 1999;106(2):171-173. Not sensitivity or specificity of an identified test
- Kolopp-Sarda M N, Massin N, Gobert B et al. Humoral immune responses of workers occupationally exposed to wheat flour. *Am J Ind Med* 1994;26(5):671-679. Not sensitivity or specificity of an identified test
- Kong Y-C, Flynn J C, Wan Q et al. HLA and H2 class II transgenic mouse models to study susceptibility and protection in autoimmune thyroid disease. *Autoimmunity* 2003;36(6-7):397-404. Not sensitivity or specificity of an identified test
- Koninckx C R, Giliams J P, Polanco I et al. IgA antigliadin antibodies in celiac and inflammatory bowel disease. *Journal of Pediatric Gastroenterology and Nutrition* 1984;3(5):676-682. Serology <1990
- Koning F. Celiac disease and malignancy: an immunological basis?. *Journal of Pediatric Gastroenterology and Nutrition* 1997;24(5):S18-S19. Not sensitivity or specificity of an identified test
- Koning F. Immunotherapy of celiac disease: fact or fallacy?. *Netherlands Journal of Medicine* 2002;60(7):305-306. Not sensitivity or specificity of an identified test
- Kontakou M, Przemioslo R T, Sturgess R P et al. Expression of tumour necrosis factor-alpha, interleukin-6, and interleukin-2 mRNA in the jejunum of patients with coeliac disease. *Scandinavian Journal of Gastroenterology* 1995;30(5):456-463. Not sensitivity or specificity of an identified test
- Kontakou M, Przemioslo R T, Sturgess R P et al. Cytokine mRNA expression in the mucosa of treated coeliac patients after wheat peptide challenge. *Gut* 1995;37(1):52-57. Not sensitivity or specificity of an identified test
- Kontakou M, Sturgess R P, Przemioslo R T et al. Detection of interferon gamma mRNA in the mucosa of patients with coeliac disease by in situ hybridisation. *Gut* 1994;35(8):1037-1041. Not sensitivity or specificity of an identified test
- Konttinen S, Schlenzka A, Koskimies S et al. Autoantibodies and autoimmune diseases in young diabetics. *Diabetes Research (Edinburgh, Lothian)* 1990;13(4):151-156. Not sensitivity or specificity of an identified test
- Koop I, Bozkurt T, Adler G et al. Plasma cholecystokinin and pancreatic enzyme secretion in patients with coeliac sprue. *Zeitschrift Fur Gastroenterologie* 1987;25(2):124-129. Not sensitivity or specificity of an identified test
- Koop I, Ilchmann R, Izzi L et al. Detection of autoantibodies against tissue transglutaminase in patients with celiac disease and dermatitis herpetiformis. *American Journal of Gastroenterology* 2000;95(8):2009-2014. Improper control group

Koot V C, Van Straaten M, Hekkens W T et al. Elevated level of IgA gliadin antibodies in patients with rheumatoid arthritis. *Clinical and Experimental Rheumatology* 1989;7(6):623-626. Not sensitivity or specificity of an identified test

Kordonouri O, Dieterich W, Schuppan D et al. Autoantibodies to tissue transglutaminase are sensitive serological parameters for detecting silent coeliac disease in patients with Type 1 diabetes mellitus. *Diabetic Medicine - a Journal of the British Diabetic Association* 2000;17(6):441-444. Improper control group

Korhonen M, Ormio M, Burgeson R E et al. Unaltered distribution of laminins, fibronectin, and tenascin in celiac intestinal mucosa. *Journal of Histochemistry and Cytochemistry - Official Journal of the Histochemistry Society* 2000;48(7):1011-1020. Not sensitivity or specificity of an identified test

Korponay-Szabo I R, Dahlbom I, Laurila K et al. Elevation of IgG antibodies against tissue transglutaminase as a diagnostic tool for coeliac disease in selective IgA deficiency. *Gut* 2003;52(11):1567-1571. Improper control group

Korponay-Szabo I R, Kovacs J B, Czinner A et al. High prevalence of silent celiac disease in preschool children screened with IgA/IgG antiendomysium antibodies. *Journal of Pediatric Gastroenterology and Nutrition* 1999;28(1):26-30. Not sensitivity or specificity of an identified test

Korponay-Szabo I R, Kovacs J B, Lorincz M et al. Prospective significance of antiendomysium antibody positivity in subsequently verified celiac disease. *Journal of Pediatric Gastroenterology and Nutrition* 1997;25(1):56-63. Improper control group

Korponay-Szabo I R, Kovacs J B, Lorincz M et al. The human appendix: A composite substrate for anti-endomysium, anti-reticulin and anti-bowel antibody testing in coeliac disease. *Med Sci Monit* 1997;3(3):285-289. Not sensitivity or specificity of an identified test

Korponay-Szabo I R, Laurila K, Szondy Z et al. Missing endomysial and reticulin binding of coeliac antibodies in transglutaminase 2 knockout tissues. *Gut* 2003;52(2):199-204. Not sensitivity or specificity of an identified test

Korponay-Szabo I R, Sulkanen S, Halttunen T et al. Tissue transglutaminase is the target in both rodent and primate tissues for celiac disease-specific autoantibodies. *Journal of Pediatric Gastroenterology and Nutrition* 2000;31(5):520-527. Not sensitivity or specificity of an identified test

Korponay-Szabo I, Kovacs J, Lorincz M et al. Families with multiple cases of gluten-sensitive enteropathy. *Zeitschrift Fur Gastroenterologie* 1998;36(7):553-558. Not sensitivity or specificity of an identified test

Kortsik C S, Freudenberg N, Riede U et al. Lectin binding

sites and immunocytochemical characterization of normal pleural mesothelium. *General & Diagnostic Pathology* 1995;141(2):141-146. Not sensitivity or specificity of an identified test

Kosnai I, Kuitunen P, Savilahti E. Cell kinetics in the jejunal crypt epithelium in malabsorption syndrome with cow's milk protein intolerance and in coeliac disease of childhood. *Gut* 1980;21(12):1041-1046. Not sensitivity or specificity of an identified test

Kosnai I, Kuitunen P, Siimes M A. Iron deficiency in children with coeliac disease on treatment with gluten-free diet. Role of intestinal blood loss. *Arch Dis Child* 1979;54(5):375-378. Not sensitivity or specificity of an identified test

Kosnai I, Kuitunen P, Savilahti E et al. Mast cells and eosinophils in the jejunal mucosa of patients with intestinal cow's milk allergy and celiac disease of childhood. *Journal of Pediatric Gastroenterology and Nutrition* 1984;3(3):368-372. Unable to extract data

Koster-Kamphuis L, van Straaten E A, Kors W A et al. Urinary NOx:creatinine ratios during gluten challenge in children with celiac disease. *Journal of Pediatric Gastroenterology and Nutrition* 2003;36(3):372-375. Not sensitivity or specificity of an identified test

Kotze Lorete, Maria da, Silva Utiyama et al. IgA class anti-endomysial and anti-tissue transglutaminase antibodies in relation to duodenal mucosa changes in coeliac disease. *Pathology* 2003;35(1):56-60. Improper control group

Kotze L M, Utiyama S R, Nisihara R M et al. Antiendomysium antibodies in Brazilian patients with celiac disease and their first-degree relatives. *Arquivos De Gastroenterologia* 2001;38(2):94-103. Improper control group

Kowalska E, Wasowska-Krolikowska K, Toporowska-Kowalska E. Estimation of antithyroid antibodies occurrence in children with coeliac disease. *Medical Science Monitor - International Medical Journal of Experimental and Clinical Research* 2000;6(4):719-721. Not sensitivity or specificity of an identified test

Krasilnikoff P A, Gudman-Hoyer E, Moltke H H. Diagnostic value of disaccharide tolerance tests in children. *Acta Paediatrica Scandinavica* 1975;64(5):693-698. Not sensitivity or specificity of an identified test

Kraut J R, Lloyd-Still J D. The 1-hr blood xylose test in the evaluation of malabsorption in infants and children. *American Journal of Clinical Nutrition* 1980;33(11):2328-2333. Not sensitivity or specificity of an identified test

Krawitt E L, Beeken W L. Limitations of the usefulness of the d-xylose absorption test. *American Journal of Clinical Pathology* 1975;63(2):261-263. Not sensitivity or specificity of an identified test

- Krig S R, Rice R H. TCDD suppression of tissue transglutaminase stimulation by retinoids in malignant human keratinocytes. *Toxicol Sci* 2000;56(2):357-364. Not sensitivity or specificity of an identified test
- Krig S R, Chandraratna R A S, Chang M M J et al. Gene-specific TCDD suppression of RARalpha- and RXR-mediated induction of tissue transglutaminase. *Toxicol Sci* 2002;68(1):102-108. Not sensitivity or specificity of an identified test
- Krilis S A, Macpherson J L, de Carle D J et al. Small bowel mucosa from celiac patients generates 15-hydroxyeicosatetraenoic acid (15-HETE) after in vitro challenge with gluten. *Journal of Immunology (Baltimore, Md.- 1950)* 1986;137(12):3768-3771. Not sensitivity or specificity of an identified test
- Krupickova S, Tuckova L, Flegelova Z et al. Identification of common epitopes on gliadin, enterocytes, and calreticulin recognised by antigliadin antibodies of patients with coeliac disease. *Gut* 1999;44(2):168-173. Not sensitivity or specificity of an identified test
- Kubilus J, Baden H P. Isolation of two immunologically related transglutaminase substrates from cultured human keratinocytes. *In Vitro* 1982;18(5):447-455. Not sensitivity or specificity of an identified test
- Kubilus J, Kvedar J, Baden H P. Identification of new components of the cornified envelope of human and bovine epidermis. *Journal of Investigative Dermatology* 1987;89(1):44-50. Not sensitivity or specificity of an identified test
- Kucera P, Novakova D, Behanova M et al. Gliadin, endomysial and thyroid antibodies in patients with latent autoimmune diabetes of adults (LADA). *Clinical and Experimental Immunology* 2003;133(1):139-143. Not sensitivity or specificity of an identified test
- Kudo S. Role of sperm head syndecan at fertilization in fish. *Journal of Experimental Zoology* 1998;281(6):620-625. Not sensitivity or specificity of an identified test
- Kuitunen M, Savilahti E. Gut permeability to human alpha-lactalbumin, beta-lactoglobulin, mannitol, and lactulose in celiac disease. *Journal of Pediatric Gastroenterology and Nutrition* 1996;22(2):197-204. Not sensitivity or specificity of an identified test
- Kuitunen Mikael, Saukkonen Tero, Ilonen Jorma et al. Intestinal permeability to mannitol and lactulose in children with type 1 diabetes with the HLA-DQB1\*02 allele. *Autoimmunity* 2002;35(5):365-368. Not sensitivity or specificity of an identified test
- Kuitunen P, Kosnai I, Savilahti E. Morphometric study of the jejunal mucosa in various childhood enteropathies with special reference to intraepithelial lymphocytes. *Journal of Pediatric Gastroenterology and Nutrition* 1982;1(4):525-531. Unable to extract data
- Kuitunen P, Visakorpi J K, Savilahti E et al. Malabsorption syndrome with cow's milk intolerance. Clinical findings and course in 54 cases. *Archives of Disease in Childhood* 1975;50(5):351-356. Not sensitivity or specificity of an identified test
- Kuks J B M, Lems S P M, Oosterhuis H J G H. HLA type is not indicative for the effect of thymectomy in myasthenia gravis. *J Neuroimmunol* 1992;36(2-3):217-224. Not sensitivity or specificity of an identified test
- Kull K, Uibo O, Salupere R et al. High frequency of antigliadin antibodies and absence of antireticulin and antiendomysium antibodies in patients with ulcerative colitis. *Journal of Gastroenterology* 1999;34(1):61-65. Not sensitivity or specificity of an identified test
- Kumar P, Bartram C I. Relevance of the barium follow-through examination in the diagnosis of adult celiac disease. *Gastrointestinal Radiology* 1979;4(3):285-289. Not sensitivity or specificity of an identified test
- Kumar P, Clark M. Primary biliary cirrhosis and coeliac disease. Is there an association?. *Digestive and Liver Disease - Official Journal of the Italian Society of Gastroenterology and the Italian Association for the Study of the Liver* 2002;34(4):248-250. Not sensitivity or specificity of an identified test
- Kumar P J. European and North American populations should be screened for coeliac disease. *Gut* 2003;52(2):170-171. Not sensitivity or specificity of an identified test
- Kumar P J. Clinical pathology of celiac disease. *Curr Opin Gastroenterol* 1991;7(2):232-235. Review article
- Kumar P J, Ferguson A, Lancaster-Smith M et al. Food antibodies in patients with dermatitis herpetiformis and adult coeliac disease - relationship to jejunal morphology. *Scandinavian Journal of Gastroenterology* 1976;11(1):5-9. Not sensitivity or specificity of an identified test
- Kumar P J, O'Donoghue D P, Stenson K et al. Reintroduction of gluten in adults and children with treated coeliac disease. *Gut* 1979;20(9):743-749. Not sensitivity or specificity of an identified test
- Kumar P J, Silk D B A, Marks R. Functional and morphological changes in response to a gluten free diet and corticosteroids in dermatitis herpetiformis and adult coeliac disease. *Br J Dermatol* 1973;89(Suppl 9):13. Not sensitivity or specificity of an identified test
- Kumar P J, Silk D B, Rousseau B et al. Assessment of jejunal function in patients with dermatitis herpetiformis and adult coeliac disease using a perfusion technique. *Scandinavian Journal of Gastroenterology* 1974;9(8):793-798. Not sensitivity or specificity of an identified test
- Kumar P J, Walker-Smith J, Milla P et al. The teenage

coeliac: Follow up study of 102 patients. *Arch Dis Child* 1988;63(8):916-920. Not sensitivity or specificity of an identified test

Kumar R, Lumsden A, Ciclitira P J et al. Human genome search in celiac disease using gliadin cDNA as probe. *J Mol Biol* 2000;300(5):1155-1167. Not sensitivity or specificity of an identified test

Kumar Rajesh, Eastwood Amy L, Brown Milton L et al. Human genome search in celiac disease: mutated gliadin T-cell-like epitope in two human proteins promotes T-cell activation. *Journal of Molecular Biology* 2002;319(3):593-602. Not sensitivity or specificity of an identified test

Kumar V, Beutner E H, Chorzelski T P. Antiendomysial antibody--useful serological indicator of dermatitis herpetiformis. *Archives of Dermatological Research* 1987;279(7):454-458. Not sensitivity or specificity of an identified test

Kumar V, Beutner E H, Chorzelski T P. Distribution of monkey esophagus antigens reactive with IgA-class antibodies in the sera of dermatitis herpetiformis patients. *Archives of Dermatological Research* 1984;276(5):293-296. Not sensitivity or specificity of an identified test

Kumar V, Hemedinger E, Chorzelski T P et al. Reticulin and endomysial antibodies in bullous diseases. Comparison of specificity and sensitivity. *Archives of Dermatology* 1987;123(9):1179-1182. Not sensitivity or specificity of an identified test

Kumar V, Jain N, Beutner E H et al. Detection of anti gliadin antibodies in bullous diseases and their recognition of similar antigenic polypeptides. *International Archives of Allergy and Applied Immunology* 1987;83(2):155-159. Not sensitivity or specificity of an identified test

Kumar V, Jain N, Lerner A et al. Comparative studies of different gliadin preparations in detecting anti gliadin antibodies. *Journal of Pediatric Gastroenterology and Nutrition* 1986;5(5):730-734. Not sensitivity or specificity of an identified test

Kumar V, Jarzabek-Chorzelska M, Sulej J et al. Celiac disease and immunoglobulin a deficiency: how effective are the serological methods of diagnosis?. *Clinical and Diagnostic Laboratory Immunology* 2002;9(6):1295-1300. Improper control group

Kumar V, Jarzabek-Chorzelska M, Sulej J et al. Tissue transglutaminase and endomysial antibodies--diagnostic markers of gluten-sensitive enteropathy in dermatitis herpetiformis. *Clinical Immunology (Orlando, Fla.)* 2001;98(3):378-382. Not sensitivity or specificity of an identified test

Kumar V, Rajadhyaksha M, Wortsman J. Celiac disease-associated autoimmune endocrinopathies. *Clinical and Diagnostic Laboratory Immunology* 2001;8(4):678-685.

Not sensitivity or specificity of an identified test

Kumar V, Zane H, Kaul N. Serologic markers of gluten-sensitive enteropathy in bullous diseases. *Archives of Dermatology* 1992;128(11):1474-1478. Not sensitivity or specificity of an identified test

Kuncio G S, Tsyganskaya M, Zhu J et al. TNF-alpha modulates expression of the tissue transglutaminase gene in liver cells. *American Journal of Physiology* 1998;274(2 Pt 1):G240-G245. Not sensitivity or specificity of an identified test

Kundak cedil, Oskay T, Olmez U et al. Association of psoriasis vulgaris with HLA class I and class II antigens in the Turkish population, according to the age at onset. *Int J Dermatol* 2002;41(6):345-348. Not sensitivity or specificity of an identified test

Kurki P, Heliovaara M, Palosou T et al. Food intolerance and rheumatoid arthritis. *Lancet* 1988;2(8625):1419-1420. Not sensitivity or specificity of an identified test

Kuscu N K, Akcali S, Kucukmetin N T. Celiac disease and polycystic ovary syndrome. *Int J Gynecol Obstet* 2002;79(2):149-150. Not sensitivity or specificity of an identified test

Kutlu T, Brousse N, Rambaud C et al. Numbers of T cell receptor (TCR) alpha beta+ but not of TcR gamma delta+ intraepithelial lymphocytes correlate with the grade of villous atrophy in coeliac patients on a long term normal diet. *Gut* 1993;34(2):208-214. Improper control group

Kvedar J C, Manabe M, Phillips S B et al. Characterization of sciellin, a precursor to the cornified envelope of human keratinocytes. *Differentiation* 1992;Research in Biological Diversity; 49(3):195-204. Not sensitivity or specificity of an identified test

Kvedar J C, Pion I A, Bilodeau E B et al. Detection of substrates of keratinocyte transglutaminase in vitro and in vivo using a monoclonal antibody to dansylcadaverine. *Biochemistry* 1992;31(1):49-56. Not sensitivity or specificity of an identified test

Kwok W W, Nepom G T, Raymond F C. HLA-DQ polymorphisms are highly selective for peptide binding interactions. *Journal of Immunology (Baltimore, Md.-1950)* 1995;155(5):2468-2476. Not sensitivity or specificity of an identified test

Kwok W W, Schwarz D, Nepom B S et al. HLA-DQ molecules from alpha-beta heterodimers of mixed allotype. *J Immunol* 1988;141(9):3123-3127. Not sensitivity or specificity of an identified test

Kwok W W, Thurtle P, Nepom G T. A genetically controlled pairing anomaly between HLA-DQalpha and HLA-DQbeta chains. *J Immunol* 1989;143(11):3598-3601. Not sensitivity or specificity of an identified test

- L'Hirondel C, Doe W F, Peters T J. Biochemical and morphological studies on human jejunal mucosa maintained in culture. *Clinical Science and Molecular Medicine* 1976;50(5):425-429. Not sensitivity or specificity of an identified test
- L'Hirondel C, Doe W F, Peters T J. Proceedings: Use of an improved jejunal culture system for the study of normal and coeliac mucosa. *Gut* 1975;16(5):392. Not sensitivity or specificity of an identified test
- La Seta F, Salerno G, Buccellato A et al. Radiographic indicants of adult celiac disease assessed by double-contrast small bowel enteroclysis. *European Journal of Radiology* 1992;15(2):157-162. Not sensitivity or specificity of an identified test
- Labate A, Gambardella A, Messina D et al. Silent celiac disease in patients with childhood localization-related epilepsies. *Epilepsia* 2001;42(9):1153-1155. Not sensitivity or specificity of an identified test
- Labo G, Gasbarrini G, Migli F et al. Thelio-and propriolymphocytes count in normal subjects and in primary and secondary enteropathy. *G.e.n* 1978;32(4):403-417. Not sensitivity or specificity of an identified test
- LaCelle P T, Lambert A, Ekambaram M C et al. In vitro cross-linking of recombinant human involucrin. *Skin Pharmacology and Applied Skin Physiology* 1998;11(4-5):214-226. Not sensitivity or specificity of an identified test
- Lagerqvist C, Ivarsson A, Juto P et al. Screening for adult coeliac disease - which serological marker(s) to use?. *Journal of Internal Medicine* 2001;250(3):241-248. Improper control group
- Lagrange M, Ferrero J M, Lagrange J L et al. Non-specifically labelled cells that simulate bone marrow metastases in patients with non-metastatic breast cancer. *Journal of Clinical Pathology* 1997;50(3):206-211. Not sensitivity or specificity of an identified test
- Lahat E, Broide E, Leshem M et al. Prevalence of celiac antibodies in children with neurologic disorders. *Pediatr Neurol* 2000;22(5):393-396. Not sensitivity or specificity of an identified test
- Lahat N, Be-Nun A, Cohen L et al. T cell receptor repertoire in the peripheral blood and intestinal mucosa of coeliac patients. *Clinical and Experimental Immunology* 1995;101(3):422-427. Not sensitivity or specificity of an identified test
- Lahdeaho M L, Lehtinen M, Rissa H R et al. Antipeptide antibodies to adenovirus E1b protein indicate enhanced risk of celiac disease and dermatitis herpetiformis. *International Archives of Allergy and Immunology* 1993;101(3):272-276. Not sensitivity or specificity of an identified test
- Lahteenoja H, Maki M, Viander M et al. Local challenge of oral mucosa with gliadin in patients with coeliac disease. *Clinical and Experimental Immunology* 2000;120(1):38-45. Not sensitivity or specificity of an identified test
- Lahteenoja H, Toivanen A, Raiha I et al. Salivary antigliadin and antiendomysium antibodies in coeliac disease. *Scandinavian Journal of Immunology* 1999;50(5):528-535. Not sensitivity or specificity of an identified test
- Lahteenoja H, Toivanen A, Viander M et al. Oral mucosal changes in coeliac patients on a gluten-free diet. *European Journal of Oral Sciences* 1998;106(5):899-906. Not sensitivity or specificity of an identified test
- Lahteenoja H, Toivanen A, Viander M et al. Increase in T-cell subsets of oral mucosa: a late immune response in patients with treated coeliac disease?. *Scandinavian Journal of Immunology* 2000;52(6):602-608. Not sensitivity or specificity of an identified test
- Lai T S, Bielawska A, Peoples K A et al. Sphingosylphosphocholine reduces the calcium ion requirement for activating tissue transglutaminase. *Journal of Biological Chemistry* 1997;272(26):16295-16300. Not sensitivity or specificity of an identified test
- Lai T S, Hausladen A, Slaughter T F et al. Calcium regulates S-nitrosylation, denitrosylation, and activity of tissue transglutaminase. *Biochemistry* 2001;40(16):4904-4910. Not sensitivity or specificity of an identified test
- Lai T S, Slaughter T F, Koropchak C M et al. C-terminal deletion of human tissue transglutaminase enhances magnesium-dependent GTP/ATPase activity. *Journal of Biological Chemistry* 1996;271(49):31191-31195. Not sensitivity or specificity of an identified test
- Lai T S, Slaughter T F, Peoples K A et al. Regulation of human tissue transglutaminase function by magnesium-nucleotide complexes. Identification of distinct binding sites for Mg-GTP and Mg-ATP. *Journal of Biological Chemistry* 1998;273(3):1776-1781. Not sensitivity or specificity of an identified test
- Lamabadusuriya S P, Packer S, Harries J T. Limitations of xylose tolerance test as a screening procedure in childhood coeliac disease. *Archives of Disease in Childhood* 1975;50(1):34-39. Not sensitivity or specificity of an identified test
- Lamabadusuriya S P, Packer S, Harries J T. Proceedings: Limitations of xylose tolerance test as screening procedure for coeliac disease. *Archives of Disease in Childhood* 1974;49(3):244-245. Not sensitivity or specificity of an identified test
- Lampasona V, Bazzigaluppi E, Barera G et al. Tissue transglutaminase and combined screening for coeliac disease and type 1 diabetes-associated autoantibodies. *Lancet* 1998;352(9135):1192-1193. Not sensitivity or specificity of an identified test

- Lampasona V, Bonfanti R, Bazzigaluppi E et al. Antibodies to tissue transglutaminase C in type I diabetes. *Diabetologia* 1999;42(10):1195-1198. Not sensitivity or specificity of an identified test
- Lancaster Smith M, Kumar P, Marks R. Immunofluorescence of the jejunal mucosa in dermatitis herpetiformis and adult coeliac disease. *Br J Dermatol* 1973;89(Suppl 9):13-14. Not sensitivity or specificity of an identified test
- Lancaster-Smith M, Joyce S, Kumar P. Immunoglobulins in the jejunal mucosa in adult coeliac disease and dermatitis herpetiformis after the reintroduction of dietary gluten. *Gut* 1977;18(11):887-891. Not sensitivity or specificity of an identified test
- Lancaster-Smith M, Kumar P, Clark M L et al. Antireticulin antibodies in dermatitis herpetiformis and adult coeliac disease. Their relationship to a gluten free diet and jejunal histology. *British Journal of Dermatology* 1975;92(1):37-42. Not sensitivity or specificity of an identified test
- Lancaster-Smith M, Packer S, Kumar P J et al. Immunological phenomena in the jejunum and serum after reintroduction of dietary gluten in children with treated coeliac disease. *Journal of Clinical Pathology* 1976;29(7):592-597. Not sensitivity or specificity of an identified test
- Landini M P, Lazzarotto T, La Placa M. The immune response to human cytomegalovirus-induced early nuclear and early membrane antigens and its possible clinical significance. *Journal of Infection* 1984;9(3):257-263. Not sensitivity or specificity of an identified test
- Lang C C, Brown R M, Kinirons M T et al. Decreased intestinal CYP3A in celiac disease: reversal after successful gluten-free diet: a potential source of interindividual variability in first-pass drug metabolism. *Clinical Pharmacology and Therapeutics* 1996;59(1):41-46. Not sensitivity or specificity of an identified test
- Langman M J, Banwell J G, Stewart J S et al. ABO blood groups, secretor status, and intestinal alkaline phosphatase concentrations in patients with celiac disease. *Gastroenterology* 1969;57(1):19-23. Not sensitivity or specificity of an identified test
- Lankisch P G, Martinez Schramm A, Petersen F et al. Diagnostic intervals for recognizing celiac disease. *Zeitschrift Fur Gastroenterologie* 1996;34(8):473-477. Not sensitivity or specificity of an identified test
- Lanspa S J, Chan A T, Bell J S et al. Pathogenesis of steatorrhea in primary biliary cirrhosis. *Hepatology (Baltimore, Md.)* 1985;5(5):837-842. Not sensitivity or specificity of an identified test
- Lape M L, Baker J A, Chan J K. A comparison of immunofluorescent assays to detect anti-granulocyte antibodies. *American Journal of Clinical Pathology* 1985;84(4):464-468. Not sensitivity or specificity of an identified test
- Lapini M, Lasagni D, Ferrari R. Detection of anti-smooth muscle antibodies in the sera of patients with celiac disease: Relationship with anti-endomysium antibodies. *Eur J Lab Med* 1998;6(3):174-176. Not sensitivity or specificity of an identified test
- Lardy N M, Bakas R M, Van der et al. CIS-acting regulatory elements abrogate allele-specific HLA class I gene expression in healthy individuals. *J Immunol* 1992;148(8):2572-2577. Not sensitivity or specificity of an identified test
- Larizza D, Calcaterra V, De Giacomo C et al. Celiac disease in children with autoimmune thyroid disease. *Journal of Pediatrics* 2001;139(5):738-740. Not sensitivity or specificity of an identified test
- Larizza D, Calcaterra V, Luinetti O et al. Evidence for immunogenetic predisposition in children with celiac disease and autoimmune thyroid disease. *Int J Med Biol Environ* 2001;29(2):143-148. Not sensitivity or specificity of an identified test
- Larizza D, Martinetti M, Lorini R et al. Parental segregation of autoimmunity in patients with Turner's syndrome: Preferential paternal transmission?. *J Autoimmun* 1999;12(1):65-72. Not sensitivity or specificity of an identified test
- Lasagni D, Ferrari R, Lapini M. Unmasking anti-endomysial antibodies in coeliac subjects positive for anti-smooth muscle antibodies. *Acta Paediatrica (Oslo, Norway - 1992)* 1999;88(4):462-464. Not sensitivity or specificity of an identified test
- Latham S, Becket A J, Chapell D A. Further modifications in the children's jejunal biopsy capsule. *British Medical Journal* 1969;2(651):243 Not sensitivity or specificity of an identified test
- Laurent J, Branellec A, Heslan J M et al. An increase in circulating IgA antibodies to gliadin in IgA mesangial glomerulonephritis. *American Journal of Nephrology* 1987;7(3):178-183. Not sensitivity or specificity of an identified test
- Laurie G W, Ciclitira P J, Ellis H J et al. Immunological and partial sequence identity of mouse BM180 with wheat alpha-gliadin. *Biochemical and Biophysical Research Communications* 1995;217(1):10-15. Not sensitivity or specificity of an identified test
- Laurin P, Falth-Magnusson K, Sundqvist T. Increase in nitric oxide urinary products during gluten challenge in children with coeliac disease. *Scandinavian Journal of Gastroenterology* 2003;38(1):55-60. Not sensitivity or specificity of an identified test

Laurin Pia, Wolving Mats, Falth-Magnusson Karin. Even small amounts of gluten cause relapse in children with celiac disease. *Journal of Pediatric Gastroenterology and Nutrition* 2002;34(1):26-30. Not sensitivity or specificity of an identified test

Lauritsen K B, Lauritzen J B, Christensen K C. Gastric inhibitory polypeptide and insulin release in response to oral and intravenous glucose in coeliac disease. *Scandinavian Journal of Gastroenterology* 1982;17(2):241-245. Not sensitivity or specificity of an identified test

Lauritzen A F. Distinction between cells in serous effusions using a panel of antibodies. *Virchows Archiv.A, Pathological Anatomy and Histopathology* 1987;411(3):299-304. Not sensitivity or specificity of an identified test

Lavo B, Knutson F, Knutson L et al. Jejunal secretion of secretory immunoglobulins and gliadin antibodies in celiac disease. *Digestive Diseases and Sciences* 1992;37(1):53-59. Not sensitivity or specificity of an identified test

Lavo B, Knutson L, Loof L et al. Signs of increased leakage over the jejunal mucosa during gliadin challenge of patients with coeliac disease. *Gut* 1990;31(2):153-157. Not sensitivity or specificity of an identified test

Lawler M, Humphries P, O'Farrelly C et al. Adenovirus 12 E1A gene detection by polymerase chain reaction in both the normal and coeliac duodenum. *Gut* 1994;35(9):1226-1232. Not sensitivity or specificity of an identified test

Lazzari R, Volta U, Bianchi F B et al. R1 reticulin antibodies: markers of celiac disease in children on a normal diet and on gluten challenge. *Journal of Pediatric Gastroenterology and Nutrition* 1984;3(4):516-522. Not sensitivity or specificity of an identified test

Le Quellec A, Clapie M, Callamand P et al. Circulating oxynomodulin-like immunoreactivity in healthy children and children with celiac disease. *Journal of Pediatric Gastroenterology and Nutrition* 1998;27(5):513-518. Not sensitivity or specificity of an identified test

Le Tourneau A, Audouin J, Diebold J. Ultrastructural study of 4 cases of Ki-1 positive large anaplastic cell malignant lymphoma. *Virchows Archiv.A, Pathological Anatomy and Histopathology* 1988;413(3):215-222. Not sensitivity or specificity of an identified test

Lebenthal E, Branski D. Childhood celiac disease--a reappraisal. *Journal of Pediatrics* 1981;98(5):681-690. Not sensitivity or specificity of an identified test

Lebenthal E, Heitlinger L A. Gliadin antibodies in celiac disease. *Journal of Pediatrics* 1983;102(5):711-712. Not sensitivity or specificity of an identified test

Lebenthal E, Antonowicz I, Shwachman H. The interrelationship of enterokinase and trypsin activities in

intractable diarrhea of infancy, celiac disease, and intravenous alimentation. *Pediatrics* 1975;56(4):585-591. Not sensitivity or specificity of an identified test

Lebenthal Emanuel, Branski David. Serum anti-endomysial and anti-tissue transglutaminase for screening of celiac disease. *Israel Medical Association Journal - Imaj* 2002;4(8):627-628. Not sensitivity or specificity of an identified test

Lee C H, Lee S K, Chi J G et al. Immunohistochemical evaluation of transglutaminase C in tumours of salivary glands. *European Journal of Cancer.Part B, Oral Oncology* 1996;32b(6):401-406. Not sensitivity or specificity of an identified test

Lee F I, Prior J, Murray S M. Celiac disease in monozygous twin boys. Asynchronous presentation. *Digestive Diseases and Sciences* 1982;27(12):1137-1140. Not sensitivity or specificity of an identified test

Lee J H, Jang S I, Yang J M et al. The proximal promoter of the human transglutaminase 3 gene. Stratified squamous epithelial-specific expression in cultured cells is mediated by binding of Sp1 and ets transcription factors to a proximal promoter element. *Journal of Biological Chemistry* 1996;271(8):4561-4568. Not sensitivity or specificity of an identified test

Lee K H, Wucherpennig K W, Wiley D C. Structure of a human insulin peptide-HLA-DQ8 complex and susceptibility to type 1 diabetes. *Nature Immunology* 2001;2(6):501-507. Not sensitivity or specificity of an identified test

Lee K N, Arnold S A, Birckbichler P J et al. Site-directed mutagenesis of human tissue transglutaminase: Cys-277 is essential for transglutaminase activity but not for GTPase activity. *Biochimica Et Biophysica Acta* 1993;1202(1):1-6. Not sensitivity or specificity of an identified test

Lee K N, Birckbichler P J, Fesus L. Purification of human erythrocyte transglutaminase by immunoaffinity chromatography. *Preparative Biochemistry* 1986;16(4):321-335. Not sensitivity or specificity of an identified test

Lee K N, Birckbichler P J, Patterson M K et al. Induction of cellular transglutaminase biosynthesis by sodium butyrate. *Biochimica Et Biophysica Acta* 1987;928(1):22-28. Not sensitivity or specificity of an identified test

Lee K N, Lee C S, Tae W-C et al. Cross-linking of wild-type and mutant alphaSUB2-antiplasmins to by activated factor XIII and by a tissue transglutaminase. *J Biol Chem* 2000;275(48):37382-37389. Not sensitivity or specificity of an identified test

Lee S K, Chi J G, Jeon Y J et al. Expression of transglutaminase C during the prenatal development of human submandibular glands. *Journal of Dental Research* 1995;74(11):1812-1816. Not sensitivity or specificity of an

identified test

Lee S K, Chi J G, Park S C et al. Transient expression of transglutaminase C during prenatal development of human muscles. *Journal of Histochemistry and Cytochemistry - Official Journal of the Histochemistry Society* 2000;48(11):1565-1574. Not sensitivity or specificity of an identified test

Lee Susie K, Lo Winson, Memeo Lorenzo et al. Duodenal histology in patients with celiac disease after treatment with a gluten-free diet. *Gastrointestinal Endoscopy* 2003;57(2):187-191. Not sensitivity or specificity of an identified test

Lee Y-S, Dlugosz A A, McKay R et al. Definition by specific antisense oligonucleotides of a role for protein kinase Calpha in expression of differentiation markers in normal and neoplastic mouse epidermal keratinocytes. *Mol Carcinog* 1997;18(1):44-53. Not sensitivity or specificity of an identified test

Lefebvre O, Wouters D, Mereau-Richard C et al. Induction of apoptosis by all-trans retinoic acid in the human myeloma cell line RPMI 8226 and negative regulation of some of its typical morphological features by dexamethasone. *Cell Death and Differentiation* 1999;6(5):433-444. Not sensitivity or specificity of an identified test

Leffell M S. Is there an immunogenetic basis for Peyronie's disease?. *J Urol* 1997;157(1):295-297. Not sensitivity or specificity of an identified test

Lehmann F G, Hillert U. Fecal intestinal alkaline phosphatase in coeliac disease. *Zeitschrift Fur Gastroenterologie* 1980;18(7):381-388. Not sensitivity or specificity of an identified test

Leigh R J, Marsh M N, Crowe P et al. Studies of intestinal lymphoid tissue. IX. Dose-dependent, gluten-induced lymphoid infiltration of coeliac jejunal epithelium. *Scandinavian Journal of Gastroenterology* 1985;20(6):715-719. Not sensitivity or specificity of an identified test

Lembcke B, Schneider H, Lankisch P G. Is the assay of disaccharidase activity in small bowel mucosal biopsy relevant for clinical gastroenterologists?. *Klinische Wochenschrift* 1989;67(11):568-575. Not sensitivity or specificity of an identified test

Lemieux B, Boivin M, Brossard J-H et al. Normal parathyroid function with decreased bone mineral density in treated celiac disease. *Canadian Journal of Gastroenterology = Journal Canadien De Gastroenterologie* 2001;15(5):302-307. Not sensitivity or specificity of an identified test

Lenoir-Viale M C, Galup C, Darmon M et al. Epidermis reconstructed from the outer root sheath of human hair follicle. Effect of retinoic acid. *Archives of Dermatological Research* 1993;285(4):197-204. Not sensitivity or

specificity of an identified test

Lentze M, Schaub J, Harms K. A simple thin-layer chromatographic technique for the assay of intestinal dipeptide hydrolases from human mucosal biopsy material. *Clinica Chimica Acta* 1973;International Journal of Clinical Chemistry; 49(1):19-26. Not sensitivity or specificity of an identified test

Leon F, Camarero C, Pena R et al. Anti-transglutaminase IgA ELISA: clinical potential and drawbacks in celiac disease diagnosis. *Scandinavian Journal of Gastroenterology* 2001;36(8):849-853. Improper control group

Leonard J N, Chorzelski T P, Beutner E H et al. IgA anti-endomysial antibody detection in the serum of patients with dermatitis herpetiformis following gluten challenge. *Archives of Dermatological Research* 1985;277(5):349-351. Not sensitivity or specificity of an identified test

Leonard J N, Tucker W F, Fry J S et al. Increased incidence of malignancy in dermatitis herpetiformis. *British Medical Journal (Clinical Research Ed.)* 1983;286(6358):16-18. Not sensitivity or specificity of an identified test

Leonard J, Haffenden G, Tucker W. Gluten challenge in dermatitis herpetiformis. *New Engl J Med* 1983;308(14):816-819. Not sensitivity or specificity of an identified test

Leonard N, Feighery C F, Hourihane D O et al. Peptic duodenitis - Does it exist in the second part of the duodenum?. *J Clin Pathol* 1997;50(1):54-58. Not sensitivity or specificity of an identified test

Leonard N, Hourihane D O, Whelan A. Neuroproliferation in the mucosa is a feature of coeliac disease and Crohn's disease. *Gut* 1995;37(6):763-765. Not sensitivity or specificity of an identified test

Leong A S, Sormunen R T, Tsui W M et al. Hep Par 1 and selected antibodies in the immunohistological distinction of hepatocellular carcinoma from cholangiocarcinoma, combined tumours and metastatic carcinoma. *Histopathology* 1998;33(4):318-324. Not sensitivity or specificity of an identified test

Lepage V, Lamm L U, Charron D. Molecular aspects of HLA class II and some autoimmune diseases. *Eur J Immunogenet* 1993;20(3):153-164. Not sensitivity or specificity of an identified test

Lepore L, Martellosi S, Pennesi M et al. Prevalence of celiac disease in patients with juvenile chronic arthritis. *Journal of Pediatrics* 1996;129(2):311-313. Not sensitivity or specificity of an identified test

Lepore L, Pennesi M, Ventura A et al. Anti-alpha-gliadin antibodies are not predictive of celiac disease in juvenile chronic arthritis. *Acta Paediatrica (Oslo, Norway - 1992)* 1993;82(6-7):569-573. Not sensitivity or specificity of an

identified test

Lerner A. The race for the diagnostic autoantibody in celiac disease. And the winner is... Israel Medical Association Journal - Imaj 2000;2(2):82-83. Not sensitivity or specificity of an identified test

Lerner A. Factors affecting the clinical presentation and time of diagnosis of celiac disease: the Jerusalem and the West Bank-Gaza experience. Israel Journal of Medical Sciences 1994;30(4):294-295. Not sensitivity or specificity of an identified test

Lerner A, Lebenthal E. The controversy of the use of anti-gluten antibody (AGA) as a diagnostic tool in celiac disease. Journal of Pediatric Gastroenterology and Nutrition 1991;12(4):407-409. Not sensitivity or specificity of an identified test

Lerner A, Blank M, Lahat N et al. Increased prevalence of autoantibodies in celiac disease. Digestive Diseases and Sciences 1998;43(4):723-726. Not sensitivity or specificity of an identified test

Lerner A, Gruener N, Iancu T C. Serum carnitine concentrations in coeliac disease. Gut 1993;34(7):933-935. Not sensitivity or specificity of an identified test

Lernmark A. Molecular biology of IDDM. Diabetologia 1994;37 Suppl 2s73-s81. Not sensitivity or specificity of an identified test

Lernmark A, Kloppel G, Stenger D et al. Heterogeneity of islet pathology in two infants with recent onset diabetes mellitus. Virchows Arch 1995;425(6):631-640. Not sensitivity or specificity of an identified test

Leslie D, Lipsky P, Louis Notkins A. Autoantibodies as predictors of disease. J Clin Invest 2001;108(10):1417-1422. Not sensitivity or specificity of an identified test

Lesort M, Attavanich K, Zhang J et al. Distinct nuclear localization and activity of tissue transglutaminase. Journal of Biological Chemistry 1998;273(20):11991-11994. Not sensitivity or specificity of an identified test

Lesort M, Chun W, Johnson G V et al. Tissue transglutaminase is increased in Huntington's disease brain. Journal of Neurochemistry 1999;73(5):2018-2027. Not sensitivity or specificity of an identified test

Lesort M, Tucholski J, Miller M L et al. Tissue transglutaminase: a possible role in neurodegenerative diseases. Progress in Neurobiology 2000;61(5):439-463. Not sensitivity or specificity of an identified test

Lesort M, Tucholski J, Zhang J et al. Impaired mitochondrial function results in increased tissue transglutaminase activity in situ. Journal of Neurochemistry 2000;75(5):1951-1961. Not sensitivity or specificity of an identified test

Lesort Mathieu, Chun WanJoo, Tucholski Janusz et al. Does tissue transglutaminase play a role in Huntington's disease?. Neurochemistry International 2002;40(1):37-52. Not sensitivity or specificity of an identified test

Lesort Mathieu, Lee Matthew, Tucholski Janusz et al. Cystamine inhibits caspase activity. Implications for the treatment of polyglutamine disorders. Journal of Biological Chemistry 2002;278(6):3825-3830. Not sensitivity or specificity of an identified test

Lessof M H, Kemeny D M, Price J F. IgG antibodies to food in health and disease. Allergy Proc 1991;12(5):305-307. Not sensitivity or specificity of an identified test

Leung A K C, Robson W M. Evaluating the child with chronic diarrhea. Am Fam Phys 1996;53(2):635-643. Not sensitivity or specificity of an identified test

Leuven F V, van den, Berghe H et al. Primary amines inhibit recycling of alpha1nf 2M receptors in fibroblasts. Cell 1980;20(1):37-43. Not sensitivity or specificity of an identified test

Levenson S D, Austin R K, Dietler M D et al. Specificity of anti gliadin antibody in celiac disease. Gastroenterology 1985;89(1):1-5. Not sensitivity or specificity of an identified test

Levine A, Bujanover Y, Reif S et al. Comparison of assays for anti-endomysial and anti-transglutaminase antibodies for diagnosis of pediatric celiac disease. Israel Medical Association Journal - Imaj 2000; 2(2):122-125. Unable to obtain full article

Levine R A. Steatorrhea induced by para-aminosalicylic acid. Annals of Internal Medicine 1968;68(6):1265-1270. Not sensitivity or specificity of an identified test

Levitt M L, Gazdar A F, Oie H K et al. Cross-linked envelope-related markers for squamous differentiation in human lung cancer cell lines. Cancer Research 1990;50(1):120-128. Not sensitivity or specificity of an identified test

Lewis C, Book L, Black J et al. Celiac disease and human leukocyte antigen genotype: accuracy of diagnosis in self-diagnosed individuals, dosage effect, and sibling risk. Journal of Pediatric Gastroenterology and Nutrition 2000;31(1):22-27. Improper control group

Lewis K B, Teller D C, Fry J et al. Crosslinking kinetics of the human transglutaminase, factor XIII[A2], acting on fibrin gels and gamma-chain peptides. Biochemistry 1997;36(5):995-1002. Not sensitivity or specificity of an identified test

Lewis-Jones M S, Barnes R M R, Macfarlane A W et al. Frequency and isotype distribution of serum antibodies reactive with dietary proteins in adults with chronic urticaria. Clin Exp Dermatol 1987;12(6):419-423. Not sensitivity or specificity of an identified test

- Li Voon, Chong J S W, Leong K S et al. Is coeliac disease more prevalent in young adults with coexisting Type 1 diabetes mellitus and autoimmune thyroid disease compared with those with Type 1 diabetes mellitus alone?. *Diabetic Medicine - a Journal of the British Diabetic Association* 2002;19(4):334-337. Not sensitivity or specificity of an identified test
- Licastro F, Mariani R A, Faldella G et al. Immune-endocrine status and coeliac disease in children with Down Syndrome: Relationships with zinc and cognitive efficiency. *Brain Res Bull* 2001;55(2):313-317. Not sensitivity or specificity of an identified test
- Lidang Jensen M, Johansen P. Immunocytochemical staining of serous effusions: an additional method in the routine cytology practice?. *Cytopathology - Official Journal of the British Society for Clinical Cytology* 1994;5(2):93-103. Not sensitivity or specificity of an identified test
- Lie B A, Sollid L M, Ascher H et al. A gene telomeric of the HLA class I region is involved in predisposition to both type 1 diabetes and coeliac disease. *Tissue Antigens* 1999;54(2):162-168. Not sensitivity or specificity of an identified test
- Lifschitz C H, Polanco I, Lobb K. The urinary excretion of polyethylene glycol as a test for mucosal integrity in children with celiac disease: comparison with other noninvasive tests. *Journal of Pediatric Gastroenterology and Nutrition* 1989;9(1):49-57. Not sensitivity or specificity of an identified test
- Lilley G R, Griffin M, Bonner P L. Assays for the measurement of tissue transglutaminase (type II) mediated protein crosslinking via epsilon-(gamma-glutamyl) lysine and N',N'-bis (gamma-glutamyl) polyamine linkages using biotin labelled casein. *Journal of Biochemical and Biophysical Methods* 1997;34(1):31-43. Not sensitivity or specificity of an identified test
- Lim S D, Bae S I, Kim I G et al. Tissue transglutaminase is not increased during apoptosis of HT-1080 human fibrosarcoma cells. *Experimental and Toxicologic Pathology - Official Journal of the Gesellschaft Fur Toxikologische Pathologie* 1998;50(1):79-82. Not sensitivity or specificity of an identified test
- Lin H J, Rotter J I, Conte W J. Use of HLA marker associations and HLA haplotype linkage to estimate disease risks in families with gluten-sensitive enteropathy. *Clinical Genetics* 1985;28(3):185-198. Not sensitivity or specificity of an identified test
- Lin L, Tokunaga K, Nakajima F et al. Both HLA-B\*1301 and B\*1302 exist in Asian populations and are associated with different haplotypes. *Hum Immunol* 1995;43(1):51-56. Not sensitivity or specificity of an identified test
- Lin X R, Wilkinson D I, Farber E M. Camptothecin induces differentiation, tissue transglutaminase and apoptosis in cultured keratinocytes. *Experimental Dermatology* 1998;7(4):179-183. Not sensitivity or specificity of an identified test
- Linaker B D, Calam J. Is jejunal biopsy valuable in the elderly?. *Age and Ageing* 1978;7(4):244-245. Not sensitivity or specificity of an identified test
- Lindberg J, Ahren C, Iwarson S. Intestinal villous atrophy in chronic active hepatitis. *Scandinavian Journal of Gastroenterology* 1979;14(8):1015-1018. Not sensitivity or specificity of an identified test
- Lindberg J, Ahren Chr, Jonsson J. Gluten-free diet in chronic active hepatitis associated with intestinal villous atrophy. *Hepato-Gastroenterology* 1982;29(2):52-54. Not sensitivity or specificity of an identified test
- Lindberg T, Norden A, Josefsson L. Intestinal dipeptidases. Dipeptidase activities in small intestinal biopsy specimens from a clinical material. *Scandinavian Journal of Gastroenterology* 1968;3(2):177-182. Not sensitivity or specificity of an identified test
- Lindgren S, Sjoberg K, Eriksson S. Unsuspected coeliac disease in chronic 'cryptogenic' liver disease. *Scandinavian Journal of Gastroenterology* 1994;29(7):661-664. Not sensitivity or specificity of an identified test
- Lindh E, Ljunghall S, Larsson K et al. Screening for antibodies against gliadin in patients with osteoporosis. *Journal of Internal Medicine* 1992;231(4):403-406. Not sensitivity or specificity of an identified test
- Lindqvist U, Rudsander A, Bostrom A et al. IgA antibodies to gliadin and coeliac disease in psoriatic arthritis. *Rheumatology (Oxford, England)* 2002;41(1):31-37. Not sensitivity or specificity of an identified test
- Lindstrom C G. Millipore filter as support for fresh frozen sections of peroral biopsy specimens of small intestine. *Acta Pathologica Et Microbiologica Scandinavica* 1969;77(3):555-556. Not sensitivity or specificity of an identified test
- Lindstrom J, Smith K J, Skelton H G et al. Increased anticardiolipin antibodies associated with the development of anetoderma in HIV-1 disease. *Military Medical Consortium for the Advancement of Retroviral research (MMCARR). International Journal of Dermatology* 1995;34(6):408-415. Not sensitivity or specificity of an identified test
- Linnestad P, Erichsen A, Fausa O et al. The release of human pancreatic polypeptide, gastrin, gastric inhibitory polypeptide, and somatostatin in celiac disease related to the histological appearance of jejunal mucosa before and 1 year after gluten withdrawal. *Scandinavian Journal of Gastroenterology* 1983;18(2):169-175. Not sensitivity or specificity of an identified test
- Linsenmayer T F, Long F, Nurminskaya M et al. Type X

collagen and other up-regulated components of the avian hypertrophic cartilage program. *Progress in Nucleic Acid Research and Molecular Biology* 1998;6079-109. Not sensitivity or specificity of an identified test

Lio D, Bonanno C T, D'Anna C et al. Gluten stimulation induces an in vitro expansion of peripheral blood T gamma delta cells from HLA-DQ2-positive subjects of families of patients with celiac disease. *Experimental and Clinical Immunogenetics* 1998;15(1):46-55. Improper control group

Lionetti P. The enteropathy of celiac disease. *Journal of Pediatric Gastroenterology and Nutrition* 2002;34(Suppl 1):S18-S21. Not sensitivity or specificity of an identified test

Lionetti P, Pazzaglia A, Moriondo M et al. Differing patterns of transforming growth factor-beta expression in normal intestinal mucosa and in active celiac disease. *Journal of Pediatric Gastroenterology and Nutrition* 1999;29(3):308-313. Not sensitivity or specificity of an identified test

Little A-M, Stern P L. Does HLA type predispose some individuals to cancer?. *Mol Med Today* 1999;5(8):337-342. Not sensitivity or specificity of an identified test

Little T M. Immunoglobulin levels in families with coeliac disease. *Lancet* 1972;2(7774):400-401. Not sensitivity or specificity of an identified test

Littlewood J M. Coeliac disease in childhood. *Bailliere's Clinical Gastroenterology* 1995;9(2):295-327. Not sensitivity or specificity of an identified test

Liu E, Bao F, Barriga K et al. Fluctuating transglutaminase autoantibodies are related to histologic features of celiac disease. *Clin Gastroenterol Hepatol* 2003;1(5):356-362. Improper control group

Liu Edwin, Eisenbarth George S. Type 1A diabetes mellitus-associated autoimmunity. *Endocrinology and Metabolism Clinics of North America* 2002;31(2):391-410, Vii. Not sensitivity or specificity of an identified test

Liu J N, Kung W, Harpel P C et al. Demonstration of covalent binding of lipoprotein(a) [Lp(a)] to fibrin and endothelial cells. *Biochemistry* 1998;37(11):3949-3954. Not sensitivity or specificity of an identified test

Liu J, Purdy L E, Rabinovitch S et al. Major DQ8-restricted T-cell epitopes for human GAD65 mapped using human CD4, DQA1\*0301, DQB1\*0302 transgenic IA(null) NOD mice. *Diabetes* 1999;48(3):469-477. Not sensitivity or specificity of an identified test

Liu Jianjun, Juo Suh, Holopainen Paivi et al. Genomewide linkage analysis of celiac disease in Finnish families. *American Journal of Human Genetics* 2002;70(1):51-59. Improper control group

Liu Shenping, Cerione Richard A, Clardy Jon. Structural

basis for the guanine nucleotide-binding activity of tissue transglutaminase and its regulation of transamidation activity. *Proceedings of the National Academy of Sciences of the United States of America* 2002;99(5):2743-2747. Not sensitivity or specificity of an identified test

Liutu M. *Helicobacter pylori* and chronic urticaria. *Forum Nordic Derm-Venerol* 2003;8(2):48-49. Not sensitivity or specificity of an identified test

Liutu M, Kalimo K, Uksila J et al. Etiologic aspects of chronic urticaria. *International Journal of Dermatology* 1998;37(7):515-519. Not sensitivity or specificity of an identified test

Lloyd-Still J D, Grand R J, Khaw K T et al. The use of corticosteroids in celiac crisis. *Journal of Pediatrics* 1972;81(6):1074-1081. Not sensitivity or specificity of an identified test

Lock R J, Unsworth D J. Identifying immunoglobulin-A--deficient children and adults does not necessarily help the serologic diagnosis of coeliac disease. *Journal of Pediatric Gastroenterology and Nutrition* 1999;28(1):81-83. Not sensitivity or specificity of an identified test

Lock R J, Gilmour J E, Unsworth D J. Anti-tissue transglutaminase, anti-endomysium and anti-R1-reticulin autoantibodies--the antibody trinity of coeliac disease. *Clinical and Experimental Immunology* 1999;116(2):258-262. Not sensitivity or specificity of an identified test

Lock R J, Pitcher M C, Unsworth D J. IgA anti-tissue transglutaminase as a diagnostic marker of gluten sensitive enteropathy. *Journal of Clinical Pathology* 1999;52(4):274-277. Improper control group

Loft D E. The epidemiology and diagnosis of coeliac disease. *European Journal of Gastroenterology & Hepatology* 1993;5(2):69-72. Not sensitivity or specificity of an identified test

Loft D E, Marsh M N, Crowe P T. Rectal gluten challenge and diagnosis of coeliac disease. *Lancet* 1990;335(8701):1293-1295. Not sensitivity or specificity of an identified test

Loft D E, Nwokolo C U, Ciclitira P J. The diagnosis of gluten sensitivity and coeliac disease--the two are not mutually inclusive. *European Journal of Gastroenterology & Hepatology* 1998;10(11):911-913. Review article

Logan R F. Screening for coeliac disease--has the time come for mass screening?. *Acta paediatrica (Oslo, Norway : 1992).Supplement.* 1996;41215-19. Not sensitivity or specificity of an identified test

Logan R F A, Howarth G F, West J et al. How often is a positive faecal occult blood test the result of coeliac disease?. *European Journal of Gastroenterology & Hepatology* 2003;15(10):1097-1100. Not sensitivity or specificity of an identified test

Logan R F, Rifkind E A, Busuttill A et al. Prevalence and "incidence" of celiac disease in Edinburgh and the Lothian region of Scotland. *Gastroenterology* 1986;90(2):334-342. Not sensitivity or specificity of an identified test

Lohiniemi S, Maki M, Kaukinen K et al. Gastrointestinal symptoms rating scale in coeliac disease patients on wheat starch-based gluten-free diets. *Scandinavian Journal of Gastroenterology* 2000;35(9):947-949. Not sensitivity or specificity of an identified test

Lojda Z. Proteinases in pathology. Usefulness of histochemical methods. *Journal of Histochemistry and Cytochemistry - Official Journal of the Histochemistry Society* 1981;29(3a Suppl):481-493. Not sensitivity or specificity of an identified test

Lojda Z, Gossrau R. Histochemical demonstration of enteropeptidase activity. New method with a synthetic substrate and its comparison with the trypsinogen procedure. *Histochemistry* 1983;78(2):251-270. Not sensitivity or specificity of an identified test

Lojda Z, Fric P, Jodl J et al. Cytochemistry of the human jejunal mucosa in the norm and in malabsorption syndrome. *Current Topics in Pathology* 1970;521-63. Not sensitivity or specificity of an identified test

Lojda Z, Havrankova E, Slaby J. Histochemical demonstration of the intestinal hetero beta galactosidase (glucosidase). *Histochemistry* 1974;42(3):271-286. Not sensitivity or specificity of an identified test

Lokshin A, Mayotte J E, Levitt M L. Mechanism of interferon beta-induced squamous differentiation and programmed cell death in human non-small-cell lung cancer cell lines. *Journal of the National Cancer Institute* 1995;87(3):206-212. Not sensitivity or specificity of an identified test

Lokshin Anna E, Kalinski Pawel, Sassi R et al. Differential regulation of maturation and apoptosis of human monocyte-derived dendritic cells mediated by MHC class II. *International Immunology* 2002;14(9):1027-1037. Not sensitivity or specificity of an identified test

Lomoschitz F, Schima W, Schober E et al. Enteroclysis in adult celiac disease: diagnostic value of specific radiographic features. *European Radiology* 2002;13(4):890-896. Not sensitivity or specificity of an identified test

Londei M. The external world of gluten and autoimmunity. *Gut* 2001;49(4):463-464. Not sensitivity or specificity of an identified test

Londei M, Quarantino S, Maiuri L. Celiac disease: A model autoimmune disease with gene therapy applications. *Gene Ther* 2003;10(10):835-843. Not sensitivity or specificity of an identified test

Long F R, Kramer S S, Markowitz R I et al. Duodenitis in children: Correlation of radiologic findings with endoscopic and pathologic findings. *Radiology* 1998;206(1):103-108. Not sensitivity or specificity of an identified test

Lopes J M, Bjerkehagen B, Holm R et al. Immunohistochemical profile of synovial sarcoma with emphasis on the epithelial-type differentiation. A study of 49 primary tumours, recurrences and metastases. *Pathology, Research and Practice* 1994;190(2):168-177. Not sensitivity or specificity of an identified test

Lopez-Rodriguez M J, Canal Macias M L, Lavado Garcia J M et al. Epidemiological changes in diagnosed coeliac disease in a population of Spanish children. *Acta Paediatr Int J Paediatr* 2003;92(2):165-169. Not sensitivity or specificity of an identified test

Lopez-Vazquez A, Rodrigo L, Fuentes D et al. MHC class I chain related gene A (MICA) modulates the development of coeliac disease in patients with the high risk heterodimer DQA1\*0501/DQB1\*0201. *Gut* 2002;50(3):336-340. Not sensitivity or specificity of an identified test

Lopez-Vazquez Antonio, Rodrigo Luis, Fuentes Dolores et al. MICA-A5.1 allele is associated with atypical forms of celiac disease in HLA-DQ2-negative patients. *Immunogenetics* 2002;53(10-11):989-991. Not sensitivity or specificity of an identified test

Lorand L. Post-translational pathways for generating epsilon(gamma-glutamyl)lysine cross-links. *Annals of the New York Academy of Sciences* 1983;42110-27. Not sensitivity or specificity of an identified test

Lorand L, Bjerrum O J, Hawkins M et al. Degradation of transmembrane proteins in Ca<sup>2+</sup>-enriched human erythrocytes. An immunochemical study. *Journal of Biological Chemistry* 1983;258(8):5300-5305. Not sensitivity or specificity of an identified test

Lorand L, Dailey J E, Turner P M. Fibronectin as a carrier for the transglutaminase from human erythrocytes. *Proceedings of the National Academy of Sciences of the United States of America* 1988;85(4):1057-1059. Not sensitivity or specificity of an identified test

Lorand L, Murthy S N, Velasco P T et al. Identification of transglutaminase substrates in inside-out vesicles from human erythrocytes: immunoblotting with anti-dansyl antibody. *Biochemical and Biophysical Research Communications* 1986;134(2):685-689. Not sensitivity or specificity of an identified test

Lorand L, Parameswaran K N, Velasco P T et al. Biotinylated peptides containing a factor XIIIa or a tissue transglutaminase-reactive glutaminy residue that block protein cross-linking phenomena by becoming incorporated into amine donor sites. *Bioconjugate Chemistry* 1992;3(1):37-41. Not sensitivity or specificity of an identified test

- Lord C, MacGregor G A. Coeliac disease in identical twin infants. *Postgraduate Medical Journal* 1981;57(672):658-659. Not sensitivity or specificity of an identified test
- Lorini R, Larizza D, Scotta M S et al. HLA in Graves' disease coexistent with coeliac disease. *European Journal of Pediatrics* 1986;145(3):241. Not sensitivity or specificity of an identified test
- Lorini R, Scaramuzza A, Vitali L et al. Clinical aspects of coeliac disease in children with insulin-dependent diabetes mellitus. *Journal of Pediatric Endocrinology & Metabolism - Jpem* 1996;9(Suppl 1):101-111. Not sensitivity or specificity of an identified test
- Lorini R, Scotta M S, Cortona L et al. Celiac disease and type I (insulin-dependent) diabetes mellitus in childhood: follow-up study. *Journal of Diabetes and Its Complications* 1996;10(3):154-159. Not sensitivity or specificity of an identified test
- Lotze U, Busch H J, Aschoff A et al. Damaged myocytes as detected by the colocalization of DNA fragmentation and tissue transglutaminase and their prognostic significance in enterovirus-associated dilated cardiomyopathy. *European Journal of Clinical Investigation* 2001;31(9):744-755. Not sensitivity or specificity of an identified test
- Louis E J, Payami H, Klitz W et al. A synergistic three allele model for the HLA-linked components of coeliac disease predisposition. *Genetic Epidemiology. Supplement* 1986;1277-282. Not sensitivity or specificity of an identified test
- Louis E J, Thomson G, Payami H. The affected sib method. II. The intermediate model. *Annals of Human Genetics* 1983;47(Pt 3):225-243. Not sensitivity or specificity of an identified test
- Louka A S, Sollid L M. HLA in coeliac disease: Unravelling the complex genetics of a complex disorder. *Tissue Antigens* 2003;61(2):105-117. Not sensitivity or specificity of an identified test
- Louka A S, Moodie S J, Karell K et al. A collaborative European search for non-DQA1 \*05-DQB1 \*02 Celiac disease loci on HLA-Dr3 haplotypes: Analysis of transmission from homozygous parents. *Hum Immunol* 2003;64(3):350-358. Not sensitivity or specificity of an identified test
- Louka A S, Nilsson S, Olsson M et al. HLA in coeliac disease families: a novel test of risk modification by the 'other' haplotype when at least one DQA1 \*05-DQB1 \*02 haplotype is carried. *Tissue Antigens* 2002;60(2):147-154. Not sensitivity or specificity of an identified test
- Louka A S, Torinsson Naluai A, D'Alfonso S et al. The IL12B gene does not confer susceptibility to coeliac disease. *Tissue Antigens* 2002;59(1):70-72. Not sensitivity or specificity of an identified test
- Louka Andrew S, Lie Benedicte A, Talseth Bente et al. Coeliac disease patients carry conserved HLA-DR3-DQ2 haplotypes revealed by association of TNF alleles. *Immunogenetics* 2003;55(5):339-343. Not sensitivity or specificity of an identified test
- Lu S, Davies P J. Regulation of the expression of the tissue transglutaminase gene by DNA methylation. *Proceedings of the National Academy of Sciences of the United States of America* 1997;94(9):4692-4697. Not sensitivity or specificity of an identified test
- Lu S, Saydak M, Gentile V et al. Isolation and characterization of the human tissue transglutaminase gene promoter. *Journal of Biological Chemistry* 1995;270(17):9748-9756. Not sensitivity or specificity of an identified test
- Lu X, Xie W, Reed D et al. Nonsteroidal antiinflammatory drugs cause apoptosis and induce cyclooxygenases in chicken embryo fibroblasts. *Proc Natl Acad Sci U S A* 1995;92(17):7961-7965. Not sensitivity or specificity of an identified test
- Lucas D L, Tanuma S, Davies P J et al. Maturation of human promyelocytic leukemia cells induced by nicotinamide: evidence of a regulatory role for ADP-ribosylation of chromosomal proteins. *Journal of Cellular Physiology* 1984;121(2):334-340. Not sensitivity or specificity of an identified test
- Lucas M L, Cooper B T, Lei F H et al. Acid microclimate in coeliac and Crohn's disease: a model for folate malabsorption. *Gut* 1978;19(8):735-742. Not sensitivity or specificity of an identified test
- Luconi M, Muratori M, Maggi M et al. Uteroglobin and transglutaminase modulate human sperm functions. *Journal of Andrology* 2000;21(5):676-688. Not sensitivity or specificity of an identified test
- Ludvigsson J F, Falth-Magnusson K, Ludvigsson J. Tissue transglutaminase auto-antibodies in cord blood from children to become celiacs. *Scandinavian Journal of Gastroenterology* 2001;36(12):1279-1283. Not sensitivity or specificity of an identified test
- Lukacova D, Matsueda G R, Haber E et al. Inhibition of factor XIII activation by an anti-peptide monoclonal antibody. *Biochemistry* 1991;30(42):10164-10170. Not sensitivity or specificity of an identified test
- Lundin K E A. Coeliac disease--all questions answered?. *Digestive and Liver Disease - Official Journal of the Italian Society of Gastroenterology and the Italian Association for the Study of the Liver* 2002;34(3):238-242. Not sensitivity or specificity of an identified test
- Lundin K E A. HLA-DQ8 as an Ir gene in coeliac disease. *Gut* 2003;52(1):7-8. Review article

- Lundin K E A, Sollid L M. Gliadin peptide specific intestinal T cells in coeliac disease. *Gut* 2003;52(2):162-165. Not sensitivity or specificity of an identified test
- Lundin K E A, Nilsen E M, Scott H G et al. Oats induced villous atrophy in coeliac disease. *Gut* 2003;52(11):1649-1652. Not sensitivity or specificity of an identified test
- Lundin K E, Gjertsen H A, Scott H et al. Function of DQ2 and DQ8 as HLA susceptibility molecules in celiac disease. *Human Immunology* 1994;41(1):24-27. Not sensitivity or specificity of an identified test
- Lundin K E, Qvigstad E, Sollid L M et al. Alloreactive T cells recognizing determinants dependent on the DQ beta chain of DQw2. *Tissue Antigens* 1989;34(5):312-316. Not sensitivity or specificity of an identified test
- Lundin K E, Scott H, Fausa O et al. T cells from the small intestinal mucosa of a DR4, DQ7/DR4, DQ8 celiac disease patient preferentially recognize gliadin when presented by DQ8. *Human Immunology* 1994;41(4):285-291. Not sensitivity or specificity of an identified test
- Lundin K E, Scott H, Hansen T et al. Gliadin-specific, HLA-DQ(alpha 1\*0501,beta 1\*0201) restricted T cells isolated from the small intestinal mucosa of celiac disease patients. *Journal of Experimental Medicine* 1993;178(1):187-196. Not sensitivity or specificity of an identified test
- Lundin K E, Sollid L M, Anthonsen D et al. Heterogeneous reactivity patterns of HLA-DQ-restricted, small intestinal T-cell clones from patients with celiac disease. *Gastroenterology* 1997;112(3):752-759. Not sensitivity or specificity of an identified test
- Lundin K E, Sollid L M, Qvigstad E et al. T lymphocyte recognition of a celiac disease-associated cis- or trans-encoded HLA-DQ alpha/beta-heterodimer. *Journal of Immunology (Baltimore, Md. - 1950)* 1990;145(1):136-139. Not sensitivity or specificity of an identified test
- Luostarinen L K, Collin P O, Peraaho M J et al. Coeliac disease in patients with cerebellar ataxia of unknown origin. *Annals of Medicine* 2001;33(6):445-449. Not sensitivity or specificity of an identified test
- Luostarinen L, Dastidar P, Collin P et al. Association between coeliac disease, epilepsy and brain atrophy. *European Neurology* 2001;46(4):187-191. Not sensitivity or specificity of an identified test
- Luyet C, Burri P H, Schittny J C. Suppression of cell proliferation and programmed cell death by dexamethasone during postnatal lung development. *Am J Physiol Lung Cell Mol Physiol* 2002;282(3 26-3):L477-L483. Not sensitivity or specificity of an identified test
- Luzi Giuseppe, Zullo Angelo, Iebba Filippo et al. Duodenal pathology and clinical-immunological implications in common variable immunodeficiency patients. *American Journal of Gastroenterology* 2003;98(1):118-121. Not sensitivity or specificity of an identified test
- Lycke N, Kilander A, Nilsson L A et al. Production of antibodies to gliadin in intestinal mucosa of patients with coeliac disease: a study at the single cell level. *Gut* 1989;30(1):72-77. Not sensitivity or specificity of an identified test
- Lynch D A, Sobala G M, Dixon M F et al. Lymphocytic gastritis and associated small bowel disease: a diffuse lymphocytic gastroenteropathy?. *Journal of Clinical Pathology* 1995;48(10):939-945. Not sensitivity or specificity of an identified test
- Macaubas C, Hallmayer J, Kalil J et al. Extensive polymorphism of a (CA)(n) microsatellite located in the HLA-DQA1/DQB1 class II region. *Hum Immunol* 1995;42(3):209-220. Not sensitivity or specificity of an identified test
- MacDonald T T. Epithelial proliferation in response to gastrointestinal inflammation. *Annals of the New York Academy of Sciences* 1992;664:202-209. Not sensitivity or specificity of an identified test
- MacDonald T T. The role of activated T lymphocytes in gastrointestinal disease. *Clinical and Experimental Allergy - Journal of the British Society for Allergy and Clinical Immunology* 1990;20(3):247-252. Not sensitivity or specificity of an identified test
- MacDonald T T. Evidence for cell-mediated hypersensitivity as an important pathogenetic mechanism in food intolerance. *Clin Exp Allergy Suppl* 1995;25(1):10-13. Not sensitivity or specificity of an identified test
- MacDonald T T, Spencer J. Cell-mediated immune injury in the intestine. *Gastroenterology Clinics of North America* 1992;21(2):367-386. Not sensitivity or specificity of an identified test
- MacDonald T T, Spencer J. The role of activated T cells in transformed intestinal mucosa. *Digestion* 1990;46(Suppl 2):290-296. Not sensitivity or specificity of an identified test
- Machulla H K G, Muller L P, Schaaf A et al. Association of chronic lymphocytic leukemia with specific alleles of the HLA-DR4:DR53:DQ8 haplotype in German patients. *Int J Cancer* 2001;92(2):203-207. Not sensitivity or specificity of an identified test
- Mack D G, Johnson J J, Roberts F et al. HLA-class II genes modify outcome of *Toxoplasma gondii* infection. *Int J Parasitol* 1999;29(9):1351-1358. Not sensitivity or specificity of an identified test
- Mack R, Chowdary D, Samaan P et al. Prevalence of CTLA-4 polymorphism A49G in Ashkenazi Jews. *Genet Test* 2001;5(3):269-271. Not sensitivity or specificity of an identified test

Mackenzie I R, Gilbert J J. Cysts of the neuraxis of endodermal origin. *Journal of Neurology, Neurosurgery, and Psychiatry* 1991;54(7):572-575. Not sensitivity or specificity of an identified test

Mackey J, Treem W R, Worley G et al. Frequency of celiac disease in individuals with Down syndrome in the United States. *Clinical Pediatrics* 2001;40(5):249-252. Not sensitivity or specificity of an identified test

Mackintosh P, Asquith P. HLA and coeliac disease. *British Medical Bulletin* 1978;34(3):291-294. Not sensitivity or specificity of an identified test

Macpherson A J S, Bjarnason I, Peters T J. The subcellular distribution and levels of calmodulin in jejunal biopsies from control subjects and patients with coeliac disease. *Clin Chim Acta* 1986;159(2):133-138. Not sensitivity or specificity of an identified test

Mader R, Adawi M, Schonfeld S. Malabsorption in systemic lupus erythematosus. *Clinical and Experimental Rheumatology* 1997;15(6):659-661. Not sensitivity or specificity of an identified test

Madi A, Punyiczki M, di Rao M et al. Biochemical characterization and localization of transglutaminase in wild-type and cell-death mutants of the nematode *Caenorhabditis elegans*. *European Journal of Biochemistry / Febs* 1998;253(3):583-590. Not sensitivity or specificity of an identified test

Maffei H V, Kingston D, Hill I D et al. Histopathologic changes and the immune response within the jejunal mucosa in infants and children. *Pediatric Research* 1979;13(6):733-736. Not sensitivity or specificity of an identified test

Magaudda A, Dalla Bernadina B, De Marco P et al. Bilateral occipital calcification, epilepsy and coeliac disease: Clinical and neuroimaging features of a new syndrome. *J Neurol Neurosurg Psychiatry* 1993;56(8):885-889. Not sensitivity or specificity of an identified test

Magaudda L, Anastasi G, Arco A et al. Scanning electron microscopy of histological relapse after gluten-challenge in coeliac disease. *Acta Paediatr Scand* 1989;78(4):549-554. Not sensitivity or specificity of an identified test

Magazzu G, Bottari M, Tuccari G et al. Upper gastrointestinal endoscopy can be a reliable screening tool for celiac sprue in adults. *Journal of Clinical Gastroenterology* 1994;19(3):255-257. Not sensitivity or specificity of an identified test

Maggio N, Sellitti S, Capano C P et al. Tissue-transglutaminase in rat and human brain: light and electron immunocytochemical analysis and in situ hybridization study. *Brain Research Bulletin* 2001;56(3-4):173-182. Not sensitivity or specificity of an identified test

Magliocca F M, Bonamico M, Petrozza V et al. Usefulness of endoscopic small intestinal biopsies in children with coeliac disease. *Italian Journal of Anatomy and Embryology = Archivio Italiano Di Anatomia Ed Embriologia* 2001;106(2 Suppl 1):329-335. Unable to extract data

Magliocca F M, Bonamico M, Petrozza V et al. A new morphological classification during follow-up in patients with celiac disease: a three-dimensional observation by scanning electron microscopy. *Histology and Histopathology* 1996;11(2):343-350. Unable to extract data

Magnaldo T, Bernerd F, Asselineau D et al. Expression of loricrin is negatively controlled by retinoic acid in human epidermis reconstructed in vitro. *Differentiation* 1992;49(1):39-46. Not sensitivity or specificity of an identified test

Mahadeva S, Wyatt J I, Howdle P D. Is a raised intraepithelial lymphocyte count with normal duodenal villous architecture clinically relevant?. *Journal of Clinical Pathology* 2002;55(6):424-428. Not sensitivity or specificity of an identified test

Mahmoud F, Alsaleh Q, Abul H et al. Association of major histocompatibility complex with psoriasis vulgaris in adult kuwaitis. *Med Princ Pract* 1998;7(4):261-263. Not sensitivity or specificity of an identified test

Mahon J, Blair G E, Wood G M et al. Is persistent adenovirus 12 infection involved in coeliac disease? A search for viral DNA using the polymerase chain reaction. *Gut* 1991;32(10):1114-1116. Not sensitivity or specificity of an identified test

Mahoney S-A, Wilkinson M, Smith S et al. Stabilization of neurites in cerebellar granule cells by transglutaminase activity: Identification of midkine and galectin-3 as substrates. *Neuroscience* 2000;101(1):141-155. Not sensitivity or specificity of an identified test

Mainardi Elsa, Montanelli Alessandro, Dotti Maria et al. Thyroid-related autoantibodies and celiac disease: a role for a gluten-free diet?. *Journal of Clinical Gastroenterology* 2002;35(3):245-248. Not sensitivity or specificity of an identified test

Mainguet P. Staining methods of the duodenal and intestinal mucosae: METHODES DE COLORATIONS VITALES DES MUQUEUSES DUODENALES ET INTESTINALES. *Acta Endosc* 2001;31(2):179-182. Not sensitivity or specificity of an identified test

Maiuri L, Auricchio S, Coletta S et al. Blockage of T-cell costimulation inhibits T-cell action in celiac disease. *Gastroenterology* 1998;115(3):564-572. Not sensitivity or specificity of an identified test

Maiuri L, Ciacci C, Auricchio S et al. Interleukin 15 mediates epithelial changes in celiac disease. *Gastroenterology* 2000;119(4):996-1006. Not sensitivity or specificity of an identified test

specificity of an identified test

Maiuri L, Ciacci C, Raia V et al. FAS engagement drives apoptosis of enterocytes of coeliac patients. *Gut* 2001;48(3):418-424. Not sensitivity or specificity of an identified test

Maiuri L, Ciacci C, Vacca L et al. IL-15 drives the specific migration of CD94+ and TCR-gammadelta+ intraepithelial lymphocytes in organ cultures of treated celiac patients. *American Journal of Gastroenterology* 2001;96(1):150-156. Not sensitivity or specificity of an identified test

Maiuri L, Picarelli A, Boirivant M et al. Definition of the initial immunologic modifications upon in vitro gliadin challenge in the small intestine of celiac patients. *Gastroenterology* 1996;110(5):1368-1378. Not sensitivity or specificity of an identified test

Maiuri L, Troncone R, Fais S et al. Crypt epithelial cells express the 4F2 antigen in untreated coeliac mucosa. *Adv Exp Med Biol* 1995;371(B):1363-1365. Not sensitivity or specificity of an identified test

Maiuri L, Troncone R, Mayer M et al. In vitro activities of A-gliadin-related synthetic peptides: damaging effect on the atrophic coeliac mucosa and activation of mucosal immune response in the treated coeliac mucosa. *Scandinavian Journal of Gastroenterology* 1996;31(3):247-253. Not sensitivity or specificity of an identified test

Maiuri Luigi, Ciacci Carolina, Ricciardelli Ida et al. Association between innate response to gliadin and activation of pathogenic T cells in coeliac disease. *Lancet* 2003;362(9377):30-37. Not sensitivity or specificity of an identified test

Maiuri M C, De Stefano D, Mele G et al. Nuclear factor kappaB is activated in small intestinal mucosa of celiac patients. *J Mol Med* 2003;81(6):373-379. Not sensitivity or specificity of an identified test

Maki M. The humoral immune system in coeliac disease. *Bailliere's Clinical Gastroenterology* 1995;9(2):231-249. Not sensitivity or specificity of an identified test

Maki M. Tissue transglutaminase as the autoantigen of coeliac disease. *Gut* 1997;41(4):565-566. Not sensitivity or specificity of an identified test

Maki M. Coeliac disease and autoimmunity due to unmasking of cryptic epitopes?. *Lancet* 1996;348(9034):1046-1047. Not sensitivity or specificity of an identified test

Maki M. Immunopathogenesis of coeliac disease. *Int J Immunopathol Pharmacol* 1997;10(2 SUPPL.):81-82. Not sensitivity or specificity of an identified test

Maki M, Aine L, Lipsanen V et al. Dental enamel defects in first-degree relatives of coeliac disease patients. *Lancet* 1991;337(8744):763-764. Not sensitivity or specificity of

an identified test

Maki M, Hallstrom O, Huupponen T et al. Increased prevalence of coeliac disease in diabetes. *Archives of Disease in Childhood* 1984;59(8):739-742. Not sensitivity or specificity of an identified test

Maki M, Hallstrom O, Vesikari T et al. Evaluation of a serum IgA-class reticulins antibody test for the detection of childhood celiac disease. *Journal of Pediatrics* 1984;105(6):901-905. Not sensitivity or specificity of an identified test

Maki M, Holm K, Koskimies S et al. Normal small bowel biopsy followed by coeliac disease. *Archives of Disease in Childhood* 1990;65(10):1137-1141. Improper control group

Maki M, Huupponen T, Holm K et al. Seroconversion of reticulins autoantibodies predicts coeliac disease in insulin dependent diabetes mellitus. *Gut* 1995;36(2):239-242. Not sensitivity or specificity of an identified test

Maki M, Lahdeaho M L, Hallstrom O et al. Postpubertal gluten challenge in coeliac disease. *Archives of Disease in Childhood* 1989;64(11):1604-1607. Not sensitivity or specificity of an identified test

Maki M, Sulkanen S, Collin P. Antibodies in relation to gluten intake. *Digestive Diseases (Basel, Switzerland)* 1998;16(6):330-332. Not sensitivity or specificity of an identified test

Maki Markku, Mustalahti Kirsi, Kokkonen Jorma et al. Prevalence of Celiac disease among children in Finland. *New England Journal of Medicine* 2003;348(25):2517-2524. Not sensitivity or specificity of an identified test

Maksimak M. A rapid, safe small bowel biopsy technique in children. *Gastrointest Endosc* 1991;37(3):358-361. Not sensitivity or specificity of an identified test

Malik A K, McGee J O. Alpha-1-antitrypsin immunoreactivity in the small bowel in coeliac disease. *Malaysian Journal of Pathology* 1993;15(2):151-154. Not sensitivity or specificity of an identified test

Malik A K, Burns J, McGee J O. Immunoperoxidase localization of fibronectin in small bowel mucosa. *Indian Journal of Pathology & Microbiology* 1992;35(2):88-93. Not sensitivity or specificity of an identified test

Malis F, Lojda Z, Fric P et al. Disaccharidases in celiac disease and mucoviscidosis. Some correlations between histological, histochemical and biochemical studies. *Digestion* 1972;5(1):40-48. Not sensitivity or specificity of an identified test

Malizia G, Trejdosiewicz L K, Wood G M et al. The microenvironment of coeliac disease: T cell phenotypes and expression of the T2 'T blast' antigen by small bowel lymphocytes. *Clinical and Experimental Immunology* 1985;60(2):437-446. Not sensitivity or specificity of an

identified test

Mallas E G, Williamson N, Cooper B T et al. IgA class reticulon antibodies in relatives of patients with coeliac disease. *Gut* 1977;18(8):647-650. Not sensitivity or specificity of an identified test

Mallet M. Coeliac disease in the very elderly. *Cme J Geriatr Med* 2002;4(2):70-73. Not sensitivity or specificity of an identified test

Maluenda C, Phillips A D, Briddon A et al. Quantitative analysis of small intestinal mucosa in cow's milk-sensitive enteropathy. *Journal of Pediatric Gastroenterology and Nutrition* 1984;3(3):349-356. Not sensitivity or specificity of an identified test

Manabe K, Donaldson P T, Underhill J A et al. Human leukocyte antigen A1-B8-DR3-DQ2-DPB1\*0401 extended haplotype in autoimmune hepatitis. *Hepatology* 1993;18(6):1334-1337. Not sensitivity or specificity of an identified test

Mandal A, Mayberry J. How common is celiac disease in South America?. *American Journal of Gastroenterology* 2000;95(3):579-580. Not sensitivity or specificity of an identified test

Mandrusiak L M, Beitel L K, Wang X et al. Transglutaminase potentiates ligand-dependent proteasome dysfunction induced by polyglutamine-expanded androgen receptor. *Hum Mol Genet* 2003;12(13):1497-1506. Not sensitivity or specificity of an identified test

Manfras B J, Swinyard M, Rudert W A et al. Altered CYP21 genes in HLA-haplotypes associated with congenital adrenal hyperplasia (CAH): A family study. *Hum Genet* 1993;92(1):33-39. Not sensitivity or specificity of an identified test

Mann D L, Katz S I, Nelson D L et al. Specific B-cell antigens associated with gluten-sensitive enteropathy and dermatitis herpetiformis. *Lancet* 1976;1(7951):110-111. Not sensitivity or specificity of an identified test

Mannering S I, Purcell A W, Honeyman M C et al. Human T-cells recognise N-terminally Fmoc-modified peptide. *Vaccine* 2003;21(25-26):3638-3646. Not sensitivity or specificity of an identified test

Mannion A, Stevens F M, McCarthy C F et al. Extended major histocompatibility complex haplotypes in celiac patients in the west of Ireland. *American Journal of Medical Genetics* 1993;45(3):373-377. Not sensitivity or specificity of an identified test

Manousos O N, Economidou J C, Georgiadou D E et al. Alpha-chain disease with clinical, immunological, and histological recovery. *British Medical Journal* 1974;2(916):409-412. Not sensitivity or specificity of an identified test

Mansbridge J N, Knappe A M. Changes in keratinocyte maturation during wound healing. *J Invest Dermatol* 1987;89(3):253-263. Not sensitivity or specificity of an identified test

Mantile G, Miele L, Cordella-Miele E et al. Human Clara cell 10-kDa protein is the counterpart of rabbit uteroglobin. *Journal of Biological Chemistry* 1993;268(27):20343-20351. Not sensitivity or specificity of an identified test

Mantovani V, Corazza G R, Angelini G et al. Molecular analysis of HLA-DQ A alleles in coeliac disease lack of a unique disease-associated sequence. *Clinical and Experimental Immunology* 1991;83(1):74-78. Not sensitivity or specificity of an identified test

Mantovani V, Corazza G R, Bragliani M et al. Asp57-negative HLA DQ beta chain and DQA1\*0501 allele are essential for the onset of DQw2-positive and DQw2-negative coeliac disease. *Clinical and Experimental Immunology* 1993;91(1):153-156. Not sensitivity or specificity of an identified test

Mantovani V, Corazza G R, Frisoni M et al. HLA-DP polymorphism in northern Italian celiac patients. *Tissue Antigens* 1992;40(4):182-186. Not sensitivity or specificity of an identified test

Mantzaris G J, Tsirogianni A, Perivolioti E et al. Sensitivity and specificity of serum IgA class endomysial antibody in the diagnosis of coeliac disease. *Hell J Gastroenterol* 1996;8(4):308-311. Improper control group

Manuel P D, Walker-Smith J A, France N E. Patchy enteropathy in childhood. *Gut* 1979;20(3):211-215. Not sensitivity or specificity of an identified test

Marek A, Korzon M, Smiatacz T et al. Attempt to evaluate activation of peripheral blood lymphocytes (CD69) after gluten challenge in children with coeliac disease. *Med Sci Monit* 1998;4(5):821-825. Not sensitivity or specificity of an identified test

Marek Andrzej, Brodzicki Jacek, Liberek Anna et al. TGF-beta (transforming growth factor-beta) in chronic inflammatory conditions - a new diagnostic and prognostic marker?. *Medical Science Monitor - International Medical Journal of Experimental and Clinical Research* 2002;8(7):Ra145-Ra151. Not sensitivity or specificity of an identified test

Mariani P, Carsughi F, Spinozzi F et al. Ligand-induced conformational changes in tissue transglutaminase: Monte Carlo analysis of small-angle scattering data. *Biophysical Journal* 2000;78(6):3240-3251. Not sensitivity or specificity of an identified test

Mariani P, Mazzilli M C, Margutti G et al. Coeliac disease, enamel defects and HLA typing. *Acta Paediatrica (Oslo, Norway - 1992)* 1994;83(12):1272-1275. Not sensitivity or specificity of an identified test

- Mariani P, Viti M G, Montuori M et al. The gluten-free diet: a nutritional risk factor for adolescents with celiac disease?. *Journal of Pediatric Gastroenterology and Nutrition* 1998;27(5):519-523. Not sensitivity or specificity of an identified test
- Marinello D, Rapa A, Osello R et al. Celiac disease screening: exploring the iceberg with salivary anti gliadin antibodies. *Journal of Pediatric Gastroenterology and Nutrition* 2001;32(2):227-228. Not sensitivity or specificity of an identified test
- Marks J, Shuster S. Dermatogenic enteropathy. *Gut* 1970;11(4):292-298. Not sensitivity or specificity of an identified test
- Marks J, Shuster S. Intestinal malabsorption and the skin. *Gut* 1971;12(11):938-947. Not sensitivity or specificity of an identified test
- Marks J, Shuster S. Skin disease and the gut. *British Medical Journal* 1971;1(740):110-111. Not sensitivity or specificity of an identified test
- Marks J, Birkett D, Shuster S et al. Small intestinal mucosal abnormalities in relatives of patients with dermatitis herpetiformis. *Gut* 1970;11(6):493-497. Not sensitivity or specificity of an identified test
- Marley N J, Macartney J C, Ciclitira P J. HLA-DR, DP and DQ expression in the small intestine of patients with coeliac disease. *Clinical and Experimental Immunology* 1987;70(2):386-393. Not sensitivity or specificity of an identified test
- Marn C S, Gore R M, Ghahremani G G. Duodenal manifestations of nontropical sprue. *Gastrointestinal Radiology* 1986;11(1):30-35. Not sensitivity or specificity of an identified test
- Marren P, Yell J, Charnock F M et al. The association between lichen sclerosus and antigens of the HLA system. *British Journal of Dermatology* 1995;132(2):197-203. Not sensitivity or specificity of an identified test
- Marsh M N. Studies of intestinal lymphoid tissue: the cytology and electron microscopy of gluten-sensitive enteropathy, with particular reference to its immunopathology. *Scandinavian Journal of Gastroenterology.Supplement* 1981;7087-106. Not sensitivity or specificity of an identified test
- Marsh M N. Studies of intestinal lymphoid tissue. XV. Histopathologic features suggestive of cell-mediated reactivity in jejunal mucosae of patients with dermatitis herpetiformis. *Virchows Archiv.A, Pathological Anatomy and Histopathology* 1989;416(2):125-132. Not sensitivity or specificity of an identified test
- Marsh M N. Screening for latent gluten sensitivity: questions many, but answers few. *European Journal of Gastroenterology & Hepatology* 1996;8(1):3-6. Not sensitivity or specificity of an identified test
- Marsh M N. Gluten, major histocompatibility complex, and the small intestine: A molecular and immunobiologic approach to the spectrum of gluten sensitivity ('celiac sprue'). *Gastroenterology* 1992;102(1):330-354. Not sensitivity or specificity of an identified test
- Marsh M N. Gluten sensitivity and latency: Can patterns of intestinal antibody secretion define the great 'silent majority?'. *Gastroenterology* 1993;104(5):1550-1553. Not sensitivity or specificity of an identified test
- Marsh M N. The immunopathology of the small intestinal reaction in gluten-sensitivity. *Immunological Investigations* 1989;18(1-4):509-531. Not sensitivity or specificity of an identified test
- Marsh M N. The natural history of gluten sensitivity: Defining, refining and re-defining. *Q J Med* 1995;88(1):9-13. Not sensitivity or specificity of an identified test
- Marsh M N. Transglutaminase, gluten and celiac disease: Food for thought. *Nat Med* 1997;3(7):725-726. Not sensitivity or specificity of an identified test
- Marsh M N, Haeney M R. Studies of intestinal lymphoid tissue. VI. Proliferative response of small intestinal epithelial lymphocytes distinguishes gluten-from non-gluten-induced enteropathy. *J Clin Pathol* 1983;36(2):149-160. Not sensitivity or specificity of an identified test
- Marsh M N, Miller V. Studies of intestinal lymphoid tissue. VIII. Use of epithelial lymphocyte mitotic indices in differentiating untreated celiac sprue mucosa from other childhood enteropathies. *Journal of Pediatric Gastroenterology and Nutrition* 1985;4(6):931-935. Unable to extract data
- Marsh M N, Bjarnason I, Shaw J et al. Studies of intestinal lymphoid tissue. XIV--HLA status, mucosal morphology, permeability and epithelial lymphocyte populations in first degree relatives of patients with coeliac disease. *Gut* 1990;31(1):32-36. Not sensitivity or specificity of an identified test
- Marsh M N, Loft D E, Garner V G et al. Time/dose responses of coeliac mucosae to graded oral challenges with Frazer's fraction III of gliadin. *European Journal of Gastroenterology & Hepatology* 1992;4(8):667-673. Not sensitivity or specificity of an identified test
- Marsh M N, Mathan M, Mathan V I. Studies of intestinal lymphoid tissue. VII. The secondary nature of lymphoid cell "activation" in the jejunal lesion of tropical sprue. *American Journal of Pathology* 1983;112(3):302-312. Not sensitivity or specificity of an identified test
- Martelossi S, Zanatta E, Del Santo E et al. Dental enamel defects and screening for coeliac disease. *Acta paediatrica (Oslo, Norway : 1992).Supplement*. 1996;41247-48. Not sensitivity or specificity of an identified test

Martin-Villa J M, Lopez-Suarez J C, Perez-Blas M et al. Coeliac- and enteropathy-associated autoantibodies in Spanish insulin-dependent diabetes mellitus patients and their relation to HLA antigens. *Journal of Diabetes and Its Complications* 2001;15(1):38-43. Unable to extract data

Martinelli P, Troncone R, Paparo F et al. Coeliac disease and unfavourable outcome of pregnancy. *Gut* 2000;46(3):332-335. Not sensitivity or specificity of an identified test

Martinet Nadine, Bonnard Lionel, Regnault Veronique et al. In vivo transglutaminase type 1 expression in normal lung, preinvasive bronchial lesions, and lung cancer. *American Journal of Respiratory Cell and Molecular Biology* 2003;28(4):428-435. Not sensitivity or specificity of an identified test

Martinetti M, Cuccia M, Daielli C et al. Anti-HBV neonatal immunization with recombinant vaccine. Part II. Molecular basis of the impaired alloreactivity. *Vaccine* 1995;13(6):555-560. Not sensitivity or specificity of an identified test

Martinetti M, De Silvestri A, Belloni C et al. Humoral response to recombinant hepatitis B virus vaccine at birth: role of HLA and beyond. *Clinical Immunology (Orlando, Fla.)* 2000;97(3):234-240. Not sensitivity or specificity of an identified test

Martinez J, Chalupowicz D G, Roush R K et al. Transglutaminase-mediated processing of fibronectin by endothelial cell monolayers. *Biochemistry* 1994;33(9):2538-2545. Not sensitivity or specificity of an identified test

Martinez J, Rich E, Barsigian C. Transglutaminase-mediated cross-linking of fibrinogen by human umbilical vein endothelial cells. *Journal of Biological Chemistry* 1989;264(34):20502-20508. Not sensitivity or specificity of an identified test

Martini S, Mengozzi G, Aimo G et al. Diagnostic accuracies for celiac disease of four tissue transglutaminase autoantibody tests using human antigen. *Clinical Chemistry* 2001;47(9):1722-1725. Improper control group

Martini Silvia, Mengozzi Giulio, Aimo Giuseppe et al. Comparative evaluation of serologic tests for celiac disease diagnosis and follow-up. *Clinical Chemistry* 2002;48(6 Pt 1):960-963. Improper control group

Marttinen A, Maki M. Purification of fibroblast-derived celiac disease autoantigen molecules. *Pediatric Research* 1993;34(4):420-423. Not sensitivity or specificity of an identified test

Marttinen A, Sulkanen S, Maki M. Human fibroblast-derived molecules as antigens in enzyme-linked immunosorbent assay for coeliac disease-specific IgA. *European Journal of Clinical Investigation* 1997;27(2):135-

140. Not sensitivity or specificity of an identified test

Martucci S, Biagi F, Di Sabatino A et al. Coeliac disease. *Digestive and Liver Disease - Official Journal of the Italian Society of Gastroenterology and the Italian Association for the Study of the Liver* 2002;34(Suppl 2):s150-s153. Not sensitivity or specificity of an identified test

Marvin K W, George M D, Fujimoto W et al. Cornifin, a cross-linked envelope precursor in keratinocytes that is down-regulated by retinoids. *Proceedings of the National Academy of Sciences of the United States of America* 1992;89(22):11026-11030. Not sensitivity or specificity of an identified test

Marzari R, Sblattero D, Florian F et al. Molecular dissection of the tissue transglutaminase autoantibody response in celiac disease. *Journal of Immunology (Baltimore, Md.- 1950)* 2001;166(6):4170-4176. Not sensitivity or specificity of an identified test

Mascart-Lemone F. Strategy for serological screening of celiac disease. *Gastroenterol Int* 1998;11(3):144-148. Not sensitivity or specificity of an identified test

Mascart-Lemone F, Lambrechts A. Serology of coeliac disease: early diagnosis and therapeutic impact. *Acta Gastro-Enterologica Belgica* 1995;58(5-6):388-396. Improper control group

Mascart-Lemone F, Cadranel S, Delacroix D L et al. Change in molecular size of antigliadin IgA in serum related to presence of antigen in the gut. *Monographs in Allergy* 1988;24:310-4. Not sensitivity or specificity of an identified test

Mascart-Lemone F, Cadranel S, Van den et al. IgA immune response patterns to gliadin in serum. *Int Arch Allergy Appl Immunol* 1988;86(4):412-419. Not sensitivity or specificity of an identified test

Mascart-Lemone F, Van den, Broeck J et al. Serological aspects of coeliac disease. *Acta Gastro-Enterologica Belgica* 1992;55(2):200-208. Improper control group

Mascart-Lemone F, Van Pachterbeek T, Duchateau J et al. Serum IgA anti-gliadin antibodies (monomeric versus dimeric) in childhood coeliac disease. *Acta Gastro-Enterologica Belgica* 1986;49(4):415-422. Not sensitivity or specificity of an identified test

Masclee A A, Jansen J B, Driessen W M et al. Gallbladder sensitivity to cholecystokinin in coeliac disease. Correlation of gallbladder contraction with plasma cholecystokinin-like immunoreactivity during infusion of cerulein. *Scandinavian Journal of Gastroenterology* 1991;26(12):1279-1284. Not sensitivity or specificity of an identified test

Masevitch C H, Ugolev A M, Zabelinskii E K et al. Lumenal and membrane hydrolysis of starch in some diseases of the small intestine and pancreas. *American*

- Journal of Gastroenterology 1975;63(4):299-306. Not sensitivity or specificity of an identified test
- Mason M R, Bedrossian C W, Fahey C A. Value of immunocytochemistry in the study of malignant effusions. *Diagnostic Cytopathology* 1987;3(3):215-221. Not sensitivity or specificity of an identified test
- Masterson J B, Sweeney E C. The role of small bowel follow-through examination in the diagnosis of coeliac disease. *British Journal of Radiology* 1976;49(584):660-664. Not sensitivity or specificity of an identified test
- Mastino A, Grelli S, Piacentini M et al. Correlation between induction of lymphocyte apoptosis and prostaglandin E2 production by macrophages infected with HIV. *Cellular Immunology* 1993;152(1):120-130. Not sensitivity or specificity of an identified test
- Mather K J, Meddings J B, Beck P L et al. Prevalence of IgA-antiendomysial antibody in asymptomatic low bone mineral density. *American Journal of Gastroenterology* 2001;96(1):120-125. Not sensitivity or specificity of an identified test
- Mathus-Vliegen E M H. Lymphoma in coeliac disease. *J R Soc Med* 1995;88(12):672-677. Not sensitivity or specificity of an identified test
- Maton P N, Selden A C, Fitzpatrick M L et al. Defective gallbladder emptying and cholecystokinin release in celiac disease. Reversal by gluten-free diet. *Gastroenterology* 1985;88(2):391-396. Not sensitivity or specificity of an identified test
- Matouskova E, McKay I, Povysil C et al. Characterization of the differentiated phenotype of an organotypic model of skin derived from human keratinocytes and dried porcine dermis. *Folia Biologica* 1998;44(2):59-66. Not sensitivity or specificity of an identified test
- Matsushita S, Nishi T, Oiso M et al. HLA-DQ-binding peptide motifs. I. Comparative binding analysis of type II collagen-derived peptides to DR and DQ molecules of rheumatoid arthritis-susceptible and non-susceptible haplotypes. *Int Immunol* 1996;8(5):757-764. Not sensitivity or specificity of an identified test
- Matteoni C A, Goldblum J R, Wang N et al. Celiac disease is highly prevalent in lymphocytic colitis. *Journal of Clinical Gastroenterology* 2001;32(3):225-227. Not sensitivity or specificity of an identified test
- Matteucci E, Cinapri V, Quilici S et al. Screening for coeliac disease in families of adults with Type 1 diabetes based on serological markers. *Diabetes, Nutrition & Metabolism* 2001;14(1):37-42. Not sensitivity or specificity of an identified test
- Matysiak-Budnik T, Candalh C, Dugave C et al. Alterations of the intestinal transport and processing of gliadin peptides in celiac disease. *Gastroenterology* 2003;125(3):696-707. Not sensitivity or specificity of an identified test
- Maurino E C, Frisoni M, Bai J C et al. alpha1f1-Antitrypsin clearance cannot be used to predict the severity of histological intestinal damage in adult coeliac disease. *European Journal of Gastroenterology & Hepatology* 1992;4(5):373-376. Not sensitivity or specificity of an identified test
- Maurino E, Capizzano H, Niveloni S et al. Value of endoscopic markers in celiac disease. *Digestive Diseases and Sciences* 1993;38(11):2028-2033. Not sensitivity or specificity of an identified test
- Maurino Eduardo, Niveloni Sonia, Chernavsky Alejandra et al. Azathioprine in refractory sprue: results from a prospective, open-label study. *American Journal of Gastroenterology* 2002;97(10):2595-2602. Not sensitivity or specificity of an identified test
- Maury C P, Teppo A M. Demonstration of tissue 90 kD glycoprotein as antigen in circulating IgG immune complexes in dermatitis herpetiformis and coeliac disease. *Lancet* 1984;2(8408):892-894. Not sensitivity or specificity of an identified test
- Mavromichalis J, Brueton M J, McNeish A S et al. Evaluation of the intraepithelial lymphocyte count in the jejunum in childhood enteropathies. *Gut* 1976;17(8):600-603. Not sensitivity or specificity of an identified test
- Mawhinney H, Love A H G. Anti reticulin antibody in jejunal juice in coeliac disease. *Clinical and Experimental Immunology* 1975;21(3):394-398. Not sensitivity or specificity of an identified test
- Mayer M, Greco L, Troncone R et al. Compliance of adolescents with coeliac disease with a gluten free diet. *Gut* 1991;32(8):881-885. Not sensitivity or specificity of an identified test
- Mayer M, Greco L, Troncone R et al. Early prediction of relapse during gluten challenge in childhood celiac disease. *Journal of Pediatric Gastroenterology and Nutrition* 1989;8(4):474-479. Not sensitivity or specificity of an identified test
- Maynard E, Ferruchi J T. Neurologic and abdominal abnormalities with the malabsorption syndrome. *New Engl J Med* 1973;289(22):1186-1193. Not sensitivity or specificity of an identified test
- Mazzacca G. Diet, coeliac disease and gastrointestinal neoplasm. *Adv Exp Med Biol* 1993;348(-):133-136. Not sensitivity or specificity of an identified test
- Mazzarella G, Maglio M, Paparo F et al. An immunodominant DQ8 restricted gliadin peptide activates small intestinal immune response in in vitro cultured mucosa from HLA-DQ8 positive but not HLA-DQ8 negative coeliac patients. *Gut* 2003;52(1):57-62. Not

sensitivity or specificity of an identified test

Mazzarella Giuseppe, MacDonald Thomas T, Salvati Virginia M et al. Constitutive activation of the signal transducer and activator of transcription pathway in celiac disease lesions. *American Journal of Pathology* 2003;162(6):1845-1855. Not sensitivity or specificity of an identified test

Mazzetti di, Pietralata Giorgetti G M, Gregori M et al. Subclinical coeliac disease. *Italian Journal of Gastroenterology* 1992;24(6):352-354. Not sensitivity or specificity of an identified test

Mazzilli M C, Ferrante P, Mariani P et al. A study of Italian pediatric celiac disease patients confirms that the primary HLA association is to the DQ(alpha 1\*0501, beta 1\*0201) heterodimer. *Human Immunology* 1992;33(2):133-139. Improper control group

Mazzola G, Berrino M, Bersanti M et al. Immunoglobulin and HLA-DP genes contribute to the susceptibility to juvenile dermatitis herpetiformis. *Eur J Immunogenet* 1992;19(3):129-139. Not sensitivity or specificity of an identified test

McCarthy C F. The incidence of coeliac disease and its familial occurrence. *Ir Med J* 1974;67(15):420-421. Not sensitivity or specificity of an identified test

McCarthy C F, Borland J L, Kurtz S M et al. The value of the dissecting microscope in the diagnosis of nontropical sprue. *American Journal of Pathology* 1964;44(4):585-595. Not sensitivity or specificity of an identified test

McCarthy D M, Coleman M. Response of intestinal mucosa to gluten challenge in autistic subjects. *Lancet* 1979;2(8148):877-878. Not sensitivity or specificity of an identified test

McCarthy D, Manning N, Rees J P R et al. Hypothyroidism and coeliac disease. A family study. *Ir J Med Sci* 1976;145(7):237-238. Not sensitivity or specificity of an identified test

McClellan P, Dodge J A, Nunn S et al. Surface features of small-intestinal mucosa in childhood diarrheal disorders. *Journal of Pediatric Gastroenterology and Nutrition* 1996;23(5):538-546. Not sensitivity or specificity of an identified test

McClelland D B, Shearman D J, Lai A et al. In vitro synthesis of immunoglobulins, secretory component, complement and lysozyme by human gastrointestinal tissues. II. Pathological tissues. *Clinical and Experimental Immunology* 1976;23(1):20-27. Not sensitivity or specificity of an identified test

McCombs C C, Michalski J P. HLA and immune response. *Jama - the Journal of the American Medical Association* 1989;262(6):774. Not sensitivity or specificity of an identified test

McCombs C C, Leggett A, Ramsey K M et al. The association of HLA class II alleles defined by restriction fragment length polymorphisms with responsiveness to hepatitis B vaccine. *Vaccine Res* 1993;2(2):105-109. Not sensitivity or specificity of an identified test

McCord M L, Hall R P. IgA antibodies against reticulin and endomysium in the serum and gastrointestinal secretions of patients with dermatitis herpetiformis. *Dermatology* 1994;189(Suppl 1):60-63. Not sensitivity or specificity of an identified test

McCormick P A, Feighery C, Dolan C et al. Altered gastrointestinal immune response in sarcoidosis. *Gut* 1988;29(12):1628-1631. Not sensitivity or specificity of an identified test

McDevitt J, O'Farrelly C, Weir D G et al. Proliferation-associated markers in the coeliac duodenum. *European Journal of Gastroenterology & Hepatology* 1994;6(3):223-228. Not sensitivity or specificity of an identified test

McElvaney N G, Duignan R, Fielding J F. Coeliac disease: clinical presentations, correlations of dietary compliance, symptomatic response and repeat biopsy findings. *Ulster Medical Journal* 1992;61(2):134-138. Not sensitivity or specificity of an identified test

McEwan G T, Lucas M L, Denvir M et al. A combined TDDA-PVC pH and reference electrode for use in the upper small intestine. *Journal of Medical Engineering & Technology* 1990;14(1):16-20. Not sensitivity or specificity of an identified test

McGowan I, Campbell A, Jewell D P. Intestinal mucosal abnormality associated with human immunodeficiency virus infection. *European Journal of Gastroenterology & Hepatology* 1994;6(9):813-819. Not sensitivity or specificity of an identified test

McGuire E A, Davis A R, Korsmeyer S J. T-cell translocation gene 1 (Ttg-1) encodes a nuclear protein normally expressed in neural lineage cells. *Blood* 1991;77(3):599-606. Not sensitivity or specificity of an identified test

McIntyre A S, Long R G. Prospective survey of investigations in outpatients referred with iron deficiency anaemia. *Gut* 1993;34(8):1102-1107. Not sensitivity or specificity of an identified test

McIntyre A S, Ng D P, Smith J A et al. The endoscopic appearance of duodenal folds is predictive of untreated adult celiac disease. *Gastrointestinal Endoscopy* 1992;38(2):148-151. Not sensitivity or specificity of an identified test

McKelvie P, Friling R, Davey K et al. Changes as the result of ageing in extraocular muscles: A post-mortem study. *Aust New Zealand J Ophthalmol* 1999;27(6):420-425. Not sensitivity or specificity of an identified test

McKenna R, Stevens F M, McNicholl B et al. Family and population studies of HLA and coeliac disease in the West of Ireland. *Tissue Antigens* 1983;22(3):175-181. Not sensitivity or specificity of an identified test

McManus R, Wilson A G, Mansfield J et al. TNF2, a polymorphism of the tumour necrosis-alpha gene promoter, is a component of the coeliac disease major histocompatibility complex haplotype. *European Journal of Immunology* 1996;26(9):2113-2118. Not sensitivity or specificity of an identified test

McManus Ross, Kelleher Dermot. Coeliac disease--the villain unmasked?. *New England Journal of Medicine* 2003;348(25):2573-2574. Not sensitivity or specificity of an identified test

McMillan S A, Dickey W, Douglas J P et al. Transthyretin values correlate with mucosal recovery in patients with coeliac disease taking a gluten free diet. *Journal of Clinical Pathology* 2001;54(10):783-786. Not sensitivity or specificity of an identified test

McMillan S A, Hutchison T, Haire M et al. Antigliadin antibodies in dermatitis herpetiformis. *Ulster Medical Journal* 1983;52(2):113-117. Not sensitivity or specificity of an identified test

McMillan S A, Johnston S D, Watson R G et al. Dietary intake, smoking, and transient anti-gliadin antibodies. *Scandinavian Journal of Gastroenterology* 1998;33(5):499-503. Not sensitivity or specificity of an identified test

McMillan S A, Watson R P, McCrum E E et al. Factors associated with serum antibodies to reticulin, endomysium, and gliadin in an adult population. *Gut* 1996;39(1):43-47. Not sensitivity or specificity of an identified test

McNamee S, McLoughlin R, Stevens F M et al. Coeliac disease in the older patient. *Rev Clin Gerontol* 2002;12(2):119-126. Not sensitivity or specificity of an identified test

McNeish A S. Diagnosis of coeliac disease in retrospect. *Archives of Disease in Childhood* 1968;43(229):362-364. Not sensitivity or specificity of an identified test

McNeish A S, Anderson C M. The disorder in childhood. *Clin Gastroenterol* 1974;3(1):127-144. Not sensitivity or specificity of an identified test

McNeish A S, Harms H K, Rey J et al. The diagnosis of coeliac disease. A commentary on the current practices of members of the European Society for Paediatric Gastroenterology and Nutrition (ESPGAN). *Archives of Disease in Childhood* 1979;54(10):783-786. Not sensitivity or specificity of an identified test

McNicholl B. Coeliac disease: ecology, life history and management. *Human Nutrition.Applied Nutrition* 1986;40(Suppl 1):55-60. Not sensitivity or specificity of an

identified test

McNicholl B, Egan B. Jejunal biopsy in coeliac disease. *Clinical Pediatrics* 1968;7(9):544-552. Not sensitivity or specificity of an identified test

McNicholl B, Egan-Mitchell B. Infancy coeliac disease without diarrhea. *Pediatrics* 1972;49(1):85-91. Not sensitivity or specificity of an identified test

McNicholl B, Egan Mitchell B, Fottrell P. Early diagnosis of coeliac disease. *Ir Med J* 1975;68(8):187-191. Not sensitivity or specificity of an identified test

McNicholl B, Egan-Mitchell B, Fottrell P F. Variability of gluten intolerance in treated childhood coeliac disease. *Gut* 1979;20(2):126-132. Not sensitivity or specificity of an identified test

McNicholl B, Egan-Mitchell B, Stevens F et al. Mucosal recovery in treated childhood coeliac disease (gluten-sensitive enteropathy). *Journal of Pediatrics* 1976;89(3):418-424. Not sensitivity or specificity of an identified test

McNiff J M, Glusac E J, Lazova R Z et al. Morphea limited to the superficial reticular dermis: an underrecognized histologic phenomenon. *American Journal of Dermatopathology* 1999;21(4):315-319. Not sensitivity or specificity of an identified test

McPherson J R. Jejunal biopsy. *Medical Clinics of North America* 1970;54(4):851-862. Not sensitivity or specificity of an identified test

McPherson J R. Jejunal biopsy in the diagnosis of malabsorption syndromes. *Diseases of the Colon and Rectum* 1965;8(6):425-430. Not sensitivity or specificity of an identified test

McPherson R A. Commentary: advances in the laboratory diagnosis of coeliac disease. *Journal of Clinical Laboratory Analysis* 2001;15(3):105-107. Not sensitivity or specificity of an identified test

McTernan C L, Stewart L C, Mijovic C H et al. Assessment of the non-HLA-DR-DQ contribution to IDDM1 in British Caucasian families: Analysis of LMP7. *Diabetic Med* 2000;17(9):661-666. Not sensitivity or specificity of an identified test

Mearin F, Mearin M L, Pena A S. Distribution of IgA 1, and IgA 2 immunocytes in the jejunum of adult coeliac patients and controls. *J Clin Nutr Gastroenterol* 1986;1(2):79-82. Not sensitivity or specificity of an identified test

Mearin M L, Mulder C J J. Endoscopic small bowel biopsy with a guided capsule. *Acta Endosc* 1994;24(4):393-401. Not sensitivity or specificity of an identified test

Mearin M L, Pena A S. Clinical indications of HLA typing

- and measurement of gliadin antibodies in coeliac disease. *Netherlands Journal of Medicine* 1987;31(5-6):279-285. Not sensitivity or specificity of an identified test
- Mearin M L, Biemond I, Pena A S et al. HLA-DR phenotypes in Spanish coeliac children: their contribution to the understanding of the genetics of the disease. *Gut* 1983;24(6):532-537. Not sensitivity or specificity of an identified test
- Mearin M L, Bouquet J, Mourad N et al. HLA-DR antigens and phenotypes in Dutch coeliac children and their families. *Clinical Genetics* 1985;27(1):45-50. Not sensitivity or specificity of an identified test
- Mearin M L, Koninckx C R, Biemond I et al. Influence of genetic factors on the serum levels of antigliadin antibodies in celiac disease. *Journal of Pediatric Gastroenterology and Nutrition* 1984;3(3):373-377. Not sensitivity or specificity of an identified test
- Mearin M, Luisa Koning, Frits. Tissue transglutaminase: master regulator of celiac disease?. *Journal of Pediatric Gastroenterology and Nutrition* 2003;36(1):9-11. Not sensitivity or specificity of an identified test
- Mecham R P, Broekelmann T, Davis E C et al. Elastic fibre assembly: macromolecular interactions. *Ciba Foundation Symposium* 1995;192:172-181;Discussion 181-4. Not sensitivity or specificity of an identified test
- Meddeb-Garnaoui A, Zeliszewski D, Mougnot J F et al. Reevaluation of the relative risk for susceptibility to celiac disease of HLA-DRB1, -DQA1, -DQB1, -DPB1, and -TAP2 alleles in a French population. *Human Immunology* 1995;43(3):190-199. Improper control group
- Mediene S, Hakem S, Bard J M et al. Serum lipoprotein profile in Algerian patients with celiac disease. *Clinica Chimica Acta* 1995;International Journal of Clinical Chemistry; 235(2):189-196. Not sensitivity or specificity of an identified test
- Mehra N K, Kaur Gurvinder, Kanga Uma et al. Immunogenetics of autoimmune diseases in Asian Indians. *Annals of the New York Academy of Sciences* 2002;958:333-336. Not sensitivity or specificity of an identified test
- Mehta K. High levels of transglutaminase expression in doxorubicin-resistant human breast carcinoma cells. *International Journal of Cancer*. *Journal International Du Cancer* 1994;58(3):400-406. Not sensitivity or specificity of an identified test
- Mehta K, Lopez-Berestein G. Expression of tissue transglutaminase in cultured monocytic leukemia (THP-1) cells during differentiation. *Cancer Research* 1986;46(3):1388-1394. Not sensitivity or specificity of an identified test
- Mehta K, Lopez-Berestein G. Induction of tissue transglutaminase (TGase) in human monocytoid cells (THP-1) during retinoid and phorbol ester-induced differentiation. *Proc Am Assoc Cancer Res* 1985;VOL. 26(-):No 164. Not sensitivity or specificity of an identified test
- Mehta K, Chandrashekar R, Rao U R. Transglutaminase-catalyzed incorporation of host proteins in *Brugia malayi* microfilariae. *Mol Biochem Parasitol* 1996;76(1-2):105-114. Not sensitivity or specificity of an identified test
- Mehta K, Lopez-Berestein G, Moore W T et al. Interferon-gamma requires serum retinoids to promote the expression of tissue transglutaminase in cultured human blood monocytes. *Journal of Immunology (Baltimore, Md.- 1950)* 1985;134(4):2053-2056. Not sensitivity or specificity of an identified test
- Mehta K, Rao U R, Vickery A C et al. Significance of transglutaminase-catalyzed reactions in growth and development of filarial parasite, *Brugia malayi*. *Biochem Biophys Res Commun* 1990;173(3):1051-1057. Not sensitivity or specificity of an identified test
- Mehta K, Rao U R, Vickery A C et al. Identification of a novel transglutaminase from the filarial parasite *Brugia malayi* and its role in growth and development. *Mol Biochem Parasitol* 1992;53(1-2):1-16. Not sensitivity or specificity of an identified test
- Mehta S, Wadhwa U N, Prakash A et al. Small bowel function in severe chronic diarrhea in children. *Journal of the Association of Physicians of India* 1968;16(6):342-349. Not sensitivity or specificity of an identified test
- Mehul B, Bernard D, Schmidt R. Calmodulin-like skin protein: a new marker of keratinocyte differentiation. *Journal of Investigative Dermatology* 2001;116(6):905-909. Not sensitivity or specificity of an identified test
- Meijer Jos W R, Wahab Peter J, Mulder Chris J J. Small intestinal biopsies in celiac disease: duodenal or jejunal?. *Virchows Archiv - an International Journal of Pathology* 2002;442(2):124-128. Improper control group
- Meinhard E A, Wadbrook D G, Risdon R A. Computer card morphometry of jejunal biopsies in childhood coeliac disease. *Journal of Clinical Pathology* 1975;28(2):85-93. Not sensitivity or specificity of an identified test
- Melino G, Piacentini M. 'Tissue' transglutaminase in cell death: a downstream or a multifunctional upstream effector?. *Febs Letters* 1998;430(1-2):59-63. Not sensitivity or specificity of an identified test
- Melino G, Annicchiarico-Petruzzelli M, Piredda L et al. Tissue transglutaminase and apoptosis: sense and antisense transfection studies with human neuroblastoma cells. *Molecular and Cellular Biology* 1994;14(10):6584-6596. Not sensitivity or specificity of an identified test
- Melino G, Catani M V, Corazzari M et al. Nitric oxide can inhibit apoptosis or switch it into necrosis. *Cellular and*

- Molecular Life Sciences - Cmls 2000;57(4):612-622. Not sensitivity or specificity of an identified test
- Melino G, Draoui M, Bellincampi L et al. Retinoic acid receptors alpha and gamma mediate the induction of "tissue" transglutaminase activity and apoptosis in human neuroblastoma cells. *Experimental Cell Research* 1997;235(1):55-61. Not sensitivity or specificity of an identified test
- Melino G, Farrace M G, Ceru' M P et al. Correlation between transglutaminase activity and polyamine levels in human neuroblastoma cells. Effect of retinoic acid and alpha-difluoromethylornithine. *Experimental Cell Research* 1988;179(2):429-445. Not sensitivity or specificity of an identified test
- Melone Mariarosa A B, Di Fede, Giuseppe Peluso et al. Abnormal accumulation of tTGase products in muscle and erythrocytes of chorea-acanthocytosis patients. *Journal of Neuropathology and Experimental Neurology* 2002;61(10):841-848. Not sensitivity or specificity of an identified test
- Meloni G F, Dessole S, Vargiu N et al. The prevalence of coeliac disease in infertility. *Human Reproduction (Oxford, England)* 1999;14(11):2759-2761. Not sensitivity or specificity of an identified test
- Meloni G F, Tomasi P A, Bertocelli A et al. Prevalence of silent celiac disease in patients with autoimmune thyroiditis from Northern Sardinia. *Journal of Endocrinological Investigation* 2001;24(5):298-302. Not sensitivity or specificity of an identified test
- Meloni G, Dore A, Fanciulli G et al. Subclinical coeliac disease in schoolchildren from northern Sardinia. *Lancet* 1999;353(9146):37. Not sensitivity or specificity of an identified test
- Menni S, Cavalli R, Prampolini R et al. Dental enamel defects in children suffering from dermatitis herpetiformis and in their first degree relatives. *Eur J Pediatr Dermatol* 1996;6(1):33-38. Not sensitivity or specificity of an identified test
- Mention Jean, Ben Ahmed, Melika Begue et al. Interleukin 15: a key to disrupted intraepithelial lymphocyte homeostasis and lymphomagenesis in celiac disease. *Gastroenterology* 2003;125(3):730-745. Not sensitivity or specificity of an identified test
- Menzel E J, Pehamberger H, Holubar K. Demonstration of antibodies to wheat gliadin in dermatitis herpetiformis using sup I sup 4C-radioimmunoassay. *Clin Immunol Immunopathol* 1978;10(2):193-201. Not sensitivity or specificity of an identified test
- Menzel J. Radioimmunoassay for antigliadin-antibodies using 14C-labelled gliadin. *Journal of Immunological Methods* 1977;18(3-4):257-268. Not sensitivity or specificity of an identified test
- Menzies I S, Laker M F, Pounder R et al. Abnormal intestinal permeability to sugars in villous atrophy. *Lancet* 1979;2(8152):1107-1109. Not sensitivity or specificity of an identified test
- Mercer J, Eagles M E, Talbot I C. Brush border enzymes in coeliac disease: histochemical evaluation. *Journal of Clinical Pathology* 1990;43(4):307-312. Not sensitivity or specificity of an identified test
- Merridew S R, Wilson D V, Williams E J. Antigliadin antibody measurement by chemiluminescence ELISA in the diagnosis of coeliac disease. *Journal of Clinical Pathology* 1995;48(6):509-512. Improper control group
- Merz Hartmut, Lange Karin, Gaiser Timo et al. Characterization of a novel human anaplastic large cell lymphoma cell line tumorigenic in SCID mice. *Leukemia & Lymphoma* 2002;43(1):165-172. Not sensitivity or specificity of an identified test
- Messing B, Dutra S L, Thuillier F et al. Whole-body protein metabolism assessed by leucine and glutamine kinetics in adult patients with active celiac disease. *Metabolism- Clinical and Experimental* 1998;47(12):1429-1433. Not sensitivity or specificity of an identified test
- Metha K, Turpin J, Lopez-Berestein G. Induction of tissue transglutaminase in human peripheral blood monocytes by intracellular delivery of retinoids. *Journal of Leukocyte Biology* 1987;41(4):341-348. Not sensitivity or specificity of an identified test
- Metskula K, Grunberg H, Uibo O et al. Antigliadin antibodies and autoantibodies among 9, 12 and 15 year-old schoolchildren. *Cent-Eur J Immunol* 1998;23(3-4):197-202. Not sensitivity or specificity of an identified test
- Meuli R, Pichler W J, Gaze H et al. Genetic difference in HLA-DR phenotypes between coeliac disease and transitory gluten intolerance. *Archives of Disease in Childhood* 1995;72(1):29-32. Not sensitivity or specificity of an identified test
- Meyer B M, Campbell D R, Curington C W et al. Bentiromide test is not affected in patients with small bowel disease or liver disease. *Pancreas* 1987;2(1):44-47. Not sensitivity or specificity of an identified test
- Mezger J, Endo K, Walter S et al. A pitfall in immunocytochemistry: Non-specific staining of plasmacytoid cells with immunoalkaline phosphatase techniques. *J Tumor Marker Oncol* 1988;3(1):107-115. Not sensitivity or specificity of an identified test
- Mezzogiorno A, Esposito V. Potential role for high and low molecular weight tissue transglutaminases in transforming mammalian cell properties. *Curr Drug Targets Immune Endocr Metabol Disord* 2001;1(3):223-232. Not sensitivity or specificity of an identified test

- Mian S, el Alaoui S, Lawry J et al. The importance of the GTP-binding protein tissue transglutaminase in the regulation of cell cycle progression. *Febs Letters* 1995;370(1-2):27-31. Not sensitivity or specificity of an identified test
- Micaron, Umek-Bradac caron, Dolins caron et al. Ultrasonographic assessment of celiac disease in children: Comparison with antiendomysium antibodies and histology. *Wien Klin Wochenschr Suppl* 2001;113(3):27-31. Not sensitivity or specificity of an identified test
- Michaelsson G, Gerden B, Hagforsen E et al. Psoriasis patients with antibodies to gliadin can be improved by a gluten-free diet. *British Journal of Dermatology* 2000;142(1):44-51. Not sensitivity or specificity of an identified test
- Michaelsson G, Gerden B, Ottosson M et al. Patients with psoriasis often have increased serum levels of IgA antibodies to gliadin. *British Journal of Dermatology* 1993;129(6):667-673. Not sensitivity or specificity of an identified test
- Michaelsson G, Kraaz W, Gerden B et al. Increased lymphocyte infiltration in duodenal mucosa from patients with psoriasis and serum IgA antibodies to gliadin. *British Journal of Dermatology* 1995;133(6):896-904. Not sensitivity or specificity of an identified test
- Michaelsson G, Kraaz W, Gerden B et al. Patients with psoriasis have elevated levels of serum eosinophil cationic protein and increased numbers of EG2 positive eosinophils in the duodenal stroma. *British Journal of Dermatology* 1996;135(3):371-378. Not sensitivity or specificity of an identified test
- Michaelsson G, Kraaz W, Hagforsen E et al. Psoriasis patients have highly increased numbers of tryptase-positive mast cells in the duodenal stroma. *Br J Dermatol* 1997;136(6):866-870. Not sensitivity or specificity of an identified test
- Michalski J P, McCombs C C. Celiac disease: clinical features and pathogenesis. *American Journal of the Medical Sciences* 1994;307(3):204-211. Not sensitivity or specificity of an identified test
- Michalski J P, McCombs C C, Arai T et al. HLA-DR, DQ genotypes of celiac disease patients and healthy subjects from the West of Ireland. *Tissue Antigens* 1996;47(2):127-133. Improper control group
- Michel S, Demarchez M. Localization and in vivo activity of epidermal transglutaminase. *Journal of Investigative Dermatology* 1988;90(4):472-474. Not sensitivity or specificity of an identified test
- Michel S, Bernerd F, Jetten A M et al. Expression of keratinocyte transglutaminase mRNA revealed by in situ hybridization. *Journal of Investigative Dermatology* 1992;98(3):364-368. Not sensitivity or specificity of an identified test
- identified test
- Michel S, Courseaux A, Miquel C et al. Determination of retinoid activity by an enzyme-linked immunosorbent assay. *Analytical Biochemistry* 1991;192(1):232-236. Not sensitivity or specificity of an identified test
- Michel S, Reichert U, Isnard J L et al. Retinoic acid controls expression of epidermal transglutaminase at the pre-translational level. *Febs Letters* 1989;258(1):35-38. Not sensitivity or specificity of an identified test
- Michel S, Schmidt R, Robinson S M et al. Identification and subcellular distribution of cornified envelope precursor proteins in the transformed human keratinocyte line SV-K14. *Journal of Investigative Dermatology* 1987;88(3):301-305. Not sensitivity or specificity of an identified test
- Michelsen A E, Santi C, Holme R et al. The charge-heterogeneity of human fibrinogen as investigated by 2D electrophoresis. *Thrombosis Research* 2000;100(6):529-535. Not sensitivity or specificity of an identified test
- Migheli A, Mongini T, Doriguzzi C et al. Muscle apoptosis in humans occurs in normal and denervated muscle, but not in myotonic dystrophy, dystrophinopathies or inflammatory disease. *Neurogenetics* 1997;1(2):81-87. Not sensitivity or specificity of an identified test
- Mignot E, Kimura A, Abbal M et al. DQCAR microsatellite polymorphisms in three selected HLA class II-associated diseases. *Tissue Antigens* 1995;46(4):299-304. Not sensitivity or specificity of an identified test
- Miletic I D, Miletic V D, Sattely-Miller E A et al. Identification of gliadin presence in pharmaceutical products. *Journal of Pediatric Gastroenterology and Nutrition* 1994;19(1):27-33. Not sensitivity or specificity of an identified test
- Miletic I D, Schiffmann S S, Sattely-Miller E A et al. Development of ELISA-based assays for detection, quantitation and avidity determination of salivary IgA anti-gliadin antibodies. *Jugosl Med Biokem* 1995;14(1-2):15-25. Not sensitivity or specificity of an identified test
- Miller A, Paspaliaris W, Elliott P R et al. Anti-transglutaminase antibodies and coeliac disease. *Australian and New Zealand Journal of Medicine* 1999;29(2):239-242. Improper control group
- Miller C C, Anderton B H. Transglutaminase and the neuronal cytoskeleton in Alzheimer's disease. *Journal of Neurochemistry* 1986;46(6):1912-1922. Not sensitivity or specificity of an identified test
- Miller M L, Johnson G V. Transglutaminase cross-linking of the tau protein. *Journal of Neurochemistry* 1995;65(4):1760-1770. Not sensitivity or specificity of an identified test
- Milovic V, Stein J, Caspary W F. Intestinal malabsorption:

- Patophysiology, clinical signs and symptoms, diagnosis and treatment (First part). *Arch Gastroenterohepatol* 1999;18(3-4):65-74. Not sensitivity or specificity of an identified test
- Ming M E, Daryanani H A, Roberts L P et al. Binding of keratin intermediate filaments (K10) to the cornified envelope in mouse epidermis: Implications for barrier function. *J Invest Dermatol* 1994;103(6):780-784. Not sensitivity or specificity of an identified test
- Mino M, Lauwers G Y. Role of lymphocytic immunophenotyping in the diagnosis of gluten-sensitive enteropathy with preserved villous architecture. *Am J Surg Pathol* 2003;27(9):1237-1242. Unable to extract data
- Minta J O, Pambrun L. In vitro induction of cytologic and functional differentiation of the immature human monocytelike cell line U-937 with phorbol myristate acetate. *American Journal of Pathology* 1985;119(1):111-126. Not sensitivity or specificity of an identified test
- Mirakian R, Hill S, Richardson A et al. HLA product expression and lymphocyte subpopulations in jejunum biopsies of children with idiopathic protracted diarrhoea and enterocyte autoantibodies. *Journal of Autoimmunity* 1988;1(3):263-277. Not sensitivity or specificity of an identified test
- Mirza A, Liu S-L, Frizell E et al. A role for tissue transglutaminase in hepatic injury and fibrogenesis, and its regulation by NF-kappaB. *Am J Physiol Gastrointest Liver Physiol* 1997;272(2 35-2):G281-G288. Not sensitivity or specificity of an identified test
- Misery L, Boucheron S, Claudy A L. Factor XIIIa expression in juvenile xanthogranuloma. *Acta Dermato-Venereologica* 1994;74(1):43-44. Not sensitivity or specificity of an identified test
- Misra S, Ament M E. Diagnosis of coeliac sprue in 1994. *Gastroenterology Clinics of North America* 1995;24(1):133-143. Not sensitivity or specificity of an identified test
- Mitchell R M S, Robinson T J. Monitoring dietary compliance in coeliac disease using red cell distribution width. *International Journal of Clinical Practice* 2002;56(4):249-250. Not sensitivity or specificity of an identified test
- Mitchison H C, al Mardini H, Gillespie S et al. A pilot study of fluticasone propionate in untreated coeliac disease. *Gut* 1991;32(3):260-265. Not sensitivity or specificity of an identified test
- Mitkevich O V, Shainoff J R, DiBello P M et al. Coagulation factor XIIIa undergoes a conformational change evoked by glutamine substrate. Studies on kinetics of inhibition and binding of XIIIa by a cross-reacting antifibrinogen antibody. *Journal of Biological Chemistry* 1998;273(23):14387-14391. Not sensitivity or specificity of an identified test
- Mitsunaga S, Oguchi T, Tokunaga K et al. High-resolution HLA-DQB1 typing by combination of group-specific amplification and restriction fragment length polymorphism. *Hum Immunol* 1995;42(4):307-314. Not sensitivity or specificity of an identified test
- Mittal K K. Immunobiology of the human major histocompatibility complex: association of HLA antigens with disease. *Acta Anthropogenetica* 1984;8(3-4):245-268. Not sensitivity or specificity of an identified test
- Miwa K, Doyle C, Strominger J L. Sequence-specific interactions of nuclear factors with conserved sequences of human class II major histocompatibility complex genes. *Proc Natl Acad Sci U S A* 1987;84(14):4939-4943. Not sensitivity or specificity of an identified test
- Miyagawa S, Shinohara K, Fujita T et al. Neonatal lupus erythematosus: Analysis of HLA class II alleles in mothers and siblings from seven Japanese families. *J Am Acad Dermatol* 1997;36(2):186-190. Not sensitivity or specificity of an identified test
- Mizugami T, Mikata A, Hajikano H et al. Childhood lymphoma. A clinicopathological and immunohistological study of 58 cases. *Acta Pathologica Japonica* 1988;38(9):1149-1166. Not sensitivity or specificity of an identified test
- Moayyedi P, O'Mahony S, Jackson P et al. Small intestine in lymphocytic and collagenous colitis: mucosal morphology, permeability, and secretory immunity to gliadin. *Journal of Clinical Pathology* 1997;50(6):527-529. Not sensitivity or specificity of an identified test
- Mobacken H, Andersson H, Dahlberg E et al. Relationship of dietary gluten intake to dapsone dose in dermatitis herpetiformis. *Acta Dermato-Venereologica* 1987;67(3):267-270. Not sensitivity or specificity of an identified test
- Mobacken H, Kastrup W, Ljunghall K. Linear IgA dermatosis: A study of ten adult patients. *Acta Derm-Venereol* 1983;63(2):123-128. Not sensitivity or specificity of an identified test
- Modigliani R, Poitras P, Galian A. Chronic non-specific ulcerative duodenojejunoileitis: Report of four cases. *Gut* 1979;20(4):318-328. Not sensitivity or specificity of an identified test
- Mohan K, Pinto D, Issekutz T B. Identification of tissue transglutaminase as a novel molecule involved in human CD8SUP+ T cell transendothelial migration. *J Immunol* 2003;171(6):3179-3186. Not sensitivity or specificity of an identified test
- Mohindra S, Yachha S K, Srivastava A et al. Coeliac disease in Indian children: assessment of clinical, nutritional and pathologic characteristics. *Journal of Health, Population, and Nutrition* 2001;19(3):204-208. Not

sensitivity or specificity of an identified test

Mokhallalaty M, Debek A, Naja Z et al. Celiac disease at Makassed General Hospital (8 years of experience). *Rev Med Liban* 2002;14(2-3):49-53. Not sensitivity or specificity of an identified test

Molberg O, Kett K, Scott H et al. Gliadin specific, HLA DQ2-restricted T cells are commonly found in small intestinal biopsies from coeliac disease patients, but not from controls. *Scandinavian Journal of Immunology* 1997;46(1):103-108. Not sensitivity or specificity of an identified test

Molberg O, Lundin K E, Nilsen E M et al. HLA restriction patterns of gliadin- and astrovirus-specific CD4+ T cells isolated in parallel from the small intestine of celiac disease patients. *Tissue Antigens* 1998;52(5):407-415. Not sensitivity or specificity of an identified test

Molberg O, McAdam S N, Sollid L M. Role of tissue transglutaminase in celiac disease. *Journal of Pediatric Gastroenterology and Nutrition* 2000;30(3):232-240. Not sensitivity or specificity of an identified test

Molberg O, McAdam S N, Korner R et al. Tissue transglutaminase selectively modifies gliadin peptides that are recognized by gut-derived T cells in celiac disease. *Nature Medicine* 1998;4(6):713-717. Not sensitivity or specificity of an identified test

Molberg O, McAdam S, Lundin K E et al. T cells from celiac disease lesions recognize gliadin epitopes deamidated in situ by endogenous tissue transglutaminase. *European Journal of Immunology* 2001;31(5):1317-1323. Not sensitivity or specificity of an identified test

Molberg Oyvind, Solheim Flaete, Nina Jensen et al. Intestinal T-cell responses to high-molecular-weight glutenins in celiac disease. *Gastroenterology* 2003;125(2):337-344. Not sensitivity or specificity of an identified test

Monaghan P, Clarke C L, Perusinghe N P et al. Epidermal growth factor receptor expression on human breast luminal and basal cells in vitro. *Epithelial Cell Biology* 1995;4(2):52-62. Not sensitivity or specificity of an identified test

Monos D S, Czanky E, Ono S J et al. L cells expressing DQ molecules of the DR3 and DR4 haplotypes: reactivity patterns with mAbs. *Immunogenetics* 1995;42(3):172-180. Not sensitivity or specificity of an identified test

Monsonogo A, Friedmann I, Shani Y et al. GTP-dependent conformational changes associated with the functional switch between Galpha and cross-linking activities in brain-derived tissue transglutaminase. *Journal of Molecular Biology* 1998;282(4):713-720. Not sensitivity or specificity of an identified test

Montalto M, Cuoco L, Ricci R et al. Immunohistochemical

analysis of ZO-1 in the duodenal mucosa of patients with untreated and treated celiac disease. *Digestion* 2002;65(4):227-233. Not sensitivity or specificity of an identified test

Monteiro E, Menezes M L, Magalhaes Ramalho P. Anti-reticulon antibodies: a diagnostic and monitoring test for childhood coeliac disease. *Scandinavian Journal of Gastroenterology* 1986;21(8):955-957. Not sensitivity or specificity of an identified test

Monteiro M R, Shapiro S S, Takafuta T et al. Von Willebrand factor receptor GPIb alpha is expressed by human factor XIIIa-positive dermal dendrocytes and is upregulated by mast cell degranulation. *Journal of Investigative Dermatology* 1999;113(2):272-276. Not sensitivity or specificity of an identified test

Monteleone G, Pender S L F, Alstead E et al. Role of interferon alpha in promoting T helper cell type 1 responses in the small intestine in coeliac disease. *Gut* 2001;48(3):425-429. Not sensitivity or specificity of an identified test

Monteleone G, Pender S L, Wathen N C et al. Interferon-alpha drives T cell-mediated immunopathology in the intestine. *European Journal of Immunology* 2001;31(8):2247-2255. Not sensitivity or specificity of an identified test

Montgomery A M P, Goka A K J, Kumar P J et al. Low gluten diet in the treatment of adult coeliac disease: Effect on jejunal morphology and serum anti-gluten antibodies. *Gut* 1988;29(11):1564-1568. Serology <1990

Montgomery R D, Atiyeh M, Scales W R et al. Intestinal absorption in Saudi Arabia: an evaluation of the one hour blood xylose test. *Transactions of the Royal Society of Tropical Medicine and Hygiene* 1982;76(1):25-28. Not sensitivity or specificity of an identified test

Moodie S, Ciclitira P. Coeliac disease: Genetic factors and antigen presentation: MALADIE CoeLIAQUE: FACTEURS GENETIQUES ET PRESENTATION DES ANTIGENES. *Acta Endosc* 2001;31(3):255-264. Not sensitivity or specificity of an identified test

Moodie S, Ciclitira P. Recent developments in celiac disease. *Curr Opin Gastroenterol* 2002;18(2):182-186. Not sensitivity or specificity of an identified test

Moodie S J, Norman P J, King A L et al. Analysis of candidate genes on chromosome 19 in coeliac disease: an association study of the KIR and LILR gene clusters. *European Journal of Immunogenetics - Official Journal of the British Society for Histocompatibility and Immunogenetics* 2002;29(4):287-291. Not sensitivity or specificity of an identified test

Moore K G, Goulet F, Sartorelli A C. Purification of annexin I and annexin II from human placental membranes by high-performance liquid chromatography. *Protein*

- Expression and Purification 1992;3(1):1-7. Not sensitivity or specificity of an identified test
- Moore R H, Hitman G A, Medcraft J et al. HLA-DP region gene polymorphism in primary IgA nephropathy: no association. *Nephrol Dial Transplant* 1992;7(3):200-204. Not sensitivity or specificity of an identified test
- Mora Barbara, Bonamico Margherita, Indovina Paola et al. CTLA-4 +49 A/G dimorphism in Italian patients with celiac disease. *Human Immunology* 2003;64(2):297-301. Not sensitivity or specificity of an identified test
- Mora S, Barera G, Beccio S et al. A prospective, longitudinal study of the long-term effect of treatment on bone density in children with celiac disease. *Journal of Pediatrics* 2001;139(4):516-521. Not sensitivity or specificity of an identified test
- Morales M, Galvan E, Mery C M et al. Exocrine pancreatic insufficiency in tropical sprue. *Digestion* 2001;63(1):30-34. Not sensitivity or specificity of an identified test
- Mordenti C, Peris K, Concetta Fagnoli M et al. Cutaneous metastatic breast carcinoma: A study of 164 patients. *Acta Dermatovenerol Alp Panonica Adriat* 2000;9(4):143-148. Not sensitivity or specificity of an identified test
- Morellini M, Trabace S, Mazzilli M C et al. A study of HLA class II antigens in an Italian paediatric population with coeliac disease. *Disease Markers* 1988;6(1):23-28. Not sensitivity or specificity of an identified test
- Moretto J C, Soslow R A, Smoller B R. Atypical cells in radiation dermatitis express factor XIIIa. *American Journal of Dermatopathology* 1998;20(4):370-372. Not sensitivity or specificity of an identified test
- Morin C L, Roy C C, Lasalle R et al. Small bowel mucosal dysfunction in patients with cystic fibrosis. *Journal of Pediatrics* 1976;88(2):213-216. Not sensitivity or specificity of an identified test
- Morris M A, Ciclitira P J. Coeliac disease. *Journal of the Royal College of Physicians of London* 1997;31(6):614-618. Not sensitivity or specificity of an identified test
- Morris M A, Yiannakou J Y, King A L et al. Coeliac disease and Down syndrome: associations not due to genetic linkage on chromosome 21. *Scandinavian Journal of Gastroenterology* 2000;35(2):177-180. Not sensitivity or specificity of an identified test
- Morris M-A, Ciclitira P J. Coeliac disease. *Curr Opin Gastroenterol* 1998;14(2):107-111. Not sensitivity or specificity of an identified test
- Morris S J, Rogers A I. Diarrhea after gastrectomy and vagotomy. *Postgraduate Medicine* 1979;65(1):219-22, 225. Not sensitivity or specificity of an identified test
- Morrioni M, Sbarbati A, D'Angelo G et al. Scanning electron microscopy of the small intestine mucosa in children with celiac disease after long-term dietary treatment. *Scanning Microscopy* 1989;3(4):1161-1166. Not sensitivity or specificity of an identified test
- Mortimer P E, Stewart J S, Norman A P et al. Follow-up study of coeliac disease. *British Medical Journal* 1968;3(609):7-9. Not sensitivity or specificity of an identified test
- Mosher D F. Action of fibrin stabilizing factor on cold insoluble globulin and alpha<sub>2</sub> macroglobulin in clotting plasma. *J Biol Chem* 1976;251(6):1639-1645. Not sensitivity or specificity of an identified test
- Mosher D F, Johnson R B. In vitro formation of disulfide-bonded fibronectin multimers. *Journal of Biological Chemistry* 1983;258(10):6595-6601. Not sensitivity or specificity of an identified test
- Mosnier J F, Larvol L, Barge J et al. Lymphocytic and collagenous colitis: an immunohistochemical study. *American Journal of Gastroenterology* 1996;91(4):709-713. Not sensitivity or specificity of an identified test
- Moss S F, Attia L, Scholes J V et al. Increased small intestinal apoptosis in coeliac disease. *Gut* 1996;39(96):811-817. Not sensitivity or specificity of an identified test
- Moustakas A K, van de, Wal Y et al. Structure of celiac disease-associated HLA-DQ8 and non-associated HLA-DQ9 alleles in complex with two disease-specific epitopes. *Int Immunol* 2000;12(8):1157-1166. Not sensitivity or specificity of an identified test
- Mowat A M. Dietary modifications: food dependent autoimmunity in coeliac disease. *Gut* 1998;43(5):599-600. Not sensitivity or specificity of an identified test
- Mowat A M. Coeliac disease - A future for peptide therapy?. *Lancet* 2000;356(9226):270-271. Not sensitivity or specificity of an identified test
- Mowat Allan, McI. Coeliac disease--a meeting point for genetics, immunology, and protein chemistry. *Lancet* 2003;361(9365):1290-1292. Not sensitivity or specificity of an identified test
- Moyana T N, Shukoor S. Gastrointestinal endocrine cell hyperplasia in celiac disease: a selective proliferative process of serotonergic cells. *Modern Pathology - an Official Journal of the United States and Canadian Academy of Pathology, Inc* 1991;4(4):419-423. Not sensitivity or specificity of an identified test
- Muers M F, Faux J A, Ting A et al. HLA-A, B, C and HLA-DR antigens in extrinsic allergic alveolitis (budgerigar fancier's lung disease). *Clinical Allergy* 1982;12(1):47-53. Not sensitivity or specificity of an identified test

- Mugica F, Castiella A, Otazua P et al. Prevalence of coeliac disease in unexplained chronic hypertransaminasemia. *Revista Espanola De Enfermedades Digestivas - Organo Oficial De La Sociedad Espanola De Patologia Digestiva* 2001;93(11):707-714. Not sensitivity or specificity of an identified test
- Mulder C J J. Do we have to screen the general population for coeliac disease instead of only patients with so-called associated diseases?. *Digestive and Liver Disease - Official Journal of the Italian Society of Gastroenterology and the Italian Association for the Study of the Liver* 2000;32(9):780-781. Not sensitivity or specificity of an identified test
- Mulder C J, van Bergeijk J D, Jansen T L et al. Coeliac disease. Diagnostic and therapeutic pitfalls. *Scandinavian Journal of Gastroenterology, Supplement* 1993;20042-47. Not sensitivity or specificity of an identified test
- Mulder C J, Wahab P J, Meijer J W et al. A pilot study of recombinant human interleukin-10 in adults with refractory coeliac disease. *European Journal of Gastroenterology & Hepatology* 2001;13(10):1183-1188. Not sensitivity or specificity of an identified test
- Mulder C J, Wahab P J, Moshaver B et al. Refractory coeliac disease: a window between coeliac disease and enteropathy associated T cell lymphoma. *Scandinavian Journal of Gastroenterology, Supplement* 2000;(232):32-37. Not sensitivity or specificity of an identified test
- Muller W F. Enteroclysis in coeliac disease. *Radiologia Clinica* 1976;45(2-4):140-154. Not sensitivity or specificity of an identified test
- Murch S H. Unusual enteropathies. *Gastrointestinal Endoscopy Clinics of North America* 2001;11(4):741-66, Vii. Not sensitivity or specificity of an identified test
- Murdock P J, Owens D L, Chitolie A et al. Development and evaluation of ELISAs for factor XIII A and XIII B subunits in plasma. *Thrombosis Research* 1992;67(1):73-79. Not sensitivity or specificity of an identified test
- Murphy M S, Sood M, Johnson T. Use of the lactose HSUB2 breath test to monitor mucosal healing in coeliac disease. *Acta Paediatr Int J Paediatr* 2002;91(2):141-144. Not sensitivity or specificity of an identified test
- Murray I A, Bullimore D W, Long R G. Fasting plasma nitric oxide products in coeliac disease. *European Journal of Gastroenterology & Hepatology* 2003;15(10):1091-1095. Not sensitivity or specificity of an identified test
- Murray I A, Coupland K, Smith J A et al. Intestinal trehalase activity in a UK population: establishing a normal range and the effect of disease. *British Journal of Nutrition* 2000;83(3):241-245. Not sensitivity or specificity of an identified test
- Murray I A, Smith J A, Coupland K et al. Intestinal disaccharidase deficiency without villous atrophy may represent early celiac disease. *Scandinavian Journal of Gastroenterology* 2001;36(2):163-168. Not sensitivity or specificity of an identified test
- Murray Iain A, Daniels Ian, Coupland Kathryn et al. Increased activity and expression of iNOS in human duodenal enterocytes from patients with celiac disease. *American Journal of Physiology, Gastrointestinal and Liver Physiology* 2002;283(2):G319-G326. Not sensitivity or specificity of an identified test
- Murray J A. It's not time to put away the biopsy forceps. *American Journal of Gastroenterology* 1999;94(4):869-871. Review article
- Murray J A. The widening spectrum of celiac disease. *American Journal of Clinical Nutrition* 1999;69(3):354-365. Not sensitivity or specificity of an identified test
- Murray J A. Serodiagnosis of celiac disease. *Clin Lab Med* 1997;17(3):445-464. Not sensitivity or specificity of an identified test
- Murray J A, Herlein J, Mitros F et al. Serologic testing for celiac disease in the United States: Results of a multilaboratory comparison study. *Clin Diagn Lab Immunol* 2000;7(4):584-587. Unable to extract data
- Murtaugh M P, Arend W P, Davies P J. Induction of tissue transglutaminase in human peripheral blood monocytes. *Journal of Experimental Medicine* 1984;159(1):114-125. Not sensitivity or specificity of an identified test
- Murtaugh M P, Mehta K, Johnson J et al. Induction of tissue transglutaminase in mouse peritoneal macrophages. *Journal of Biological Chemistry* 1983;258(18):11074-11081. Not sensitivity or specificity of an identified test
- Murthy S N, Lorand L. Cross-linked A alpha.gamma chain hybrids serve as unique markers for fibrinogen polymerized by tissue transglutaminase. *Proceedings of the National Academy of Sciences of the United States of America* 1990;87(24):9679-9682. Not sensitivity or specificity of an identified test
- Murthy S N P, Iismaa Siiri, Begg Gillian et al. Conserved tryptophan in the core domain of transglutaminase is essential for catalytic activity. *Proceedings of the National Academy of Sciences of the United States of America* 2002;99(5):2738-2742. Not sensitivity or specificity of an identified test
- Murthy S N, Wilson J H, Lukas T J et al. Cross-linking sites of the human tau protein, probed by reactions with human transglutaminase. *Journal of Neurochemistry* 1998;71(6):2607-2614. Not sensitivity or specificity of an identified test
- Murthy S N, Wilson J, Guy S L et al. Intramolecular crosslinking of monomeric fibrinogen by tissue transglutaminase. *Proceedings of the National Academy of*

- Sciences of the United States of America 1991;88(23):10601-10604. Not sensitivity or specificity of an identified test
- Murthy S N, Wilson J, Zhang Y et al. Residue Gln-30 of human erythrocyte anion transporter is a prime site for reaction with intrinsic transglutaminase. *Journal of Biological Chemistry* 1994;269(36):22907-22911. Not sensitivity or specificity of an identified test
- Mussche M, Thienpont L. Adult celiac disease complicated by intestinal reticulum cell sarcoma with high serum IgA level. *Acta Clinica Belgica* 1974;29(6):388-393. Not sensitivity or specificity of an identified test
- Mustafa A S, Shaban F A, Al Attiyah R et al. Human Th1 cell lines recognize the Mycobacterium tuberculosis ESAT-6 antigen and its peptides in association with frequently expressed HLA class II molecules. *Scand J Immunol* 2003;57(2):125-134. Not sensitivity or specificity of an identified test
- Mustajoki P, Vuoristo M, Reunala T. Celiac disease or dermatitis herpetiformis in three patients with porphyria. *Digestive Diseases and Sciences* 1981;26(7):618-621. Not sensitivity or specificity of an identified test
- Mustalahti K, Holopainen P, Karell K et al. Genetic dissection between silent and clinically diagnosed symptomatic forms of coeliac disease in multiplex families. *Digestive and Liver Disease - Official Journal of the Italian Society of Gastroenterology and the Italian Association for the Study of the Liver* 2002;34(12):842-845. Improper control group
- Mustalahti K, Sulkanen S, Holopainen P et al. Coeliac disease among healthy members of multiple case coeliac disease families. *Scandinavian Journal of Gastroenterology* 2002;37(2):161-165. Not sensitivity or specificity of an identified test
- Mustalahti Kirsii, Lohiniemi Susanna, Collin Pekka et al. Gluten-free diet and quality of life in patients with screen-detected celiac disease. *Effective Clinical Practice - Ecp* 2002;5(3):105-113. Not sensitivity or specificity of an identified test
- Muszbek L, Adany R, Kawai M et al. Monocytes of patients congenitally deficient in plasma factor XIII lack factor XIII subunit a antigen and transglutaminase activity. *Thrombosis and Haemostasis* 1988;59(2):231-235. Not sensitivity or specificity of an identified test
- Muszbek L, Adany R, Szegedi G et al. Factor XIII of blood coagulation in human monocytes. *Thrombosis Research* 1985;37(3):401-410. Not sensitivity or specificity of an identified test
- Myhre A G, Aarsetoy H, Undlien D E et al. High frequency of coeliac disease among patients with autoimmune adrenocortical failure. *Scandinavian Journal of Gastroenterology* 2003;38(5):511-515. Not sensitivity or specificity of an identified test
- Myhre Anne, Grethe Undlien, Dag E et al. Autoimmune adrenocortical failure in Norway autoantibodies and human leukocyte antigen class II associations related to clinical features. *Journal of Clinical Endocrinology and Metabolism* 2002;87(2):618-623. Not sensitivity or specificity of an identified test
- Mylotte M, Egan-Mitchell B, Fottrell P F et al. Family studies in coeliac disease. *Quarterly Journal of Medicine* 1974;43(171):359-369. Not sensitivity or specificity of an identified test
- Mylotte M, Egan-Mitchell B, McCarthy C F et al. Incidence of coeliac disease in the West of Ireland. *British Medical Journal* 1973;1(5855):703-705. Not sensitivity or specificity of an identified test
- Myoung Hee, Park Dong, Hee Whang et al. High resolution HLA-DQB1 typing by combination of PCR-RFLP and PCR-SSCP. *Hum Immunol* 1999;60(9):901-907. Not sensitivity or specificity of an identified test
- Naccarato R, Di Mario F. Italian gastroenterology: Eyes on the new millennium. *Digestive and Liver Disease - Official Journal of the Italian Society of Gastroenterology and the Italian Association for the Study of the Liver* 2000;32(1):3-8. Not sensitivity or specificity of an identified test
- Nagae S, Lichti U, De Luca L M et al. Effect of retinoic acid on cornified envelope formation: Difference between spontaneous envelope formation in vivo or in vitro and expression of envelope competence. *J Invest Dermatol* 1987;89(1):51-58. Not sensitivity or specificity of an identified test
- Nagasaka T, Nakamura S, Medeiros J et al. Anaplastic large cell lymphomas presented as bone lesions: A clinicopathologic study of six cases and review of the literature. *Mod Pathol* 2000;13(10):1143-1149. Not sensitivity or specificity of an identified test
- Nagy L, Saydak M, Shipley N et al. Identification and characterization of a versatile retinoid response element (retinoic acid receptor response element-retinoid X receptor response element) in the mouse tissue transglutaminase gene promoter. *Journal of Biological Chemistry* 1996;271(8):4355-4365. Not sensitivity or specificity of an identified test
- Nagy L, Thomazy V A, Chandraratna R A et al. Retinoid-regulated expression of BCL-2 and tissue transglutaminase during the differentiation and apoptosis of human myeloid leukemia (HL-60) cells. *Leukemia Research* 1996;20(6):499-505. Not sensitivity or specificity of an identified test
- Naik S. HLA and gastrointestinal disorders. *Indian Journal of Gastroenterology - Official Journal of the Indian Society of Gastroenterology* 1986;5(2):121-124. Not sensitivity or specificity of an identified test

- Naim H Y. Secretion of human intestinal angiotensin-converting enzyme and its association with the differentiation state of intestinal cells. *Biochemical Journal* 1996;316(Pt 1):259-264. Not sensitivity or specificity of an identified test
- Nakachi K, Swift G, Wilmot D et al. Antibodies to tissue transglutaminase: comparison of ELISA and immunoprecipitation assay in the presence and in the absence of calcium ions. *Clinica Chimica Acta* 2001; *International Journal of Clinical Chemistry*; 304(1-2):75-84. Not sensitivity or specificity of an identified test
- Nakamura T, Nishida K, Dota A et al. Elevated expression of transglutaminase 1 and keratinization-related proteins in conjunctiva in severe ocular surface disease. *Investigative Ophthalmology & Visual Science* 2001;42(3):549-556. Not sensitivity or specificity of an identified test
- Nakane H, Ishida-Yamamoto A, Takahashi H et al. Elafin, a secretory protein, is cross-linked into the cornified cell envelopes from the inside of psoriatic keratinocytes. *J Invest Dermatol* 2002;119(1):50-55. Not sensitivity or specificity of an identified test
- Nakshabendi I M, Downie S, Russell R I et al. Increased rates of duodenal mucosal protein synthesis in vivo in patients with untreated coeliac disease. *Gut* 1996;39(2):176-179. Not sensitivity or specificity of an identified test
- Naluai A T, Nilsson S, Samuelsson L et al. The CTLA4/CD28 gene region on chromosome 2q33 confers susceptibility to celiac disease in a way possibly distinct from that of type 1 diabetes and other chronic inflammatory disorders. *Tissue Antigens* 2000;56(4):350-355. Not sensitivity or specificity of an identified test
- Nanda A, Al Saeed K, Dvorak R et al. Clinicopathological features and HLA tissue typing in pemphigoid gestationis patients in Kuwait. *Clin Exp Dermatol* 2003;28(3):301-306. Not sensitivity or specificity of an identified test
- Nara K, Ito S, Ito T et al. Elastase inhibitor elafin is a new type of proteinase inhibitor which has a transglutaminase-mediated anchoring sequence termed "cementoin". *Journal of Biochemistry* 1994;115(3):441-448. Not sensitivity or specificity of an identified test
- Nardacci Roberta, Lo Iacono, Oreste Ciccocanti et al. Transglutaminase type II plays a protective role in hepatic injury. *American Journal of Pathology* 2003;162(4):1293-1303. Not sensitivity or specificity of an identified test
- Natah S S, Hayrinen-Immonen R, Hietanen J et al. Factor XIIIa-positive dendrocytes are increased in number and size in recurrent aphthous ulcers (RAU). *Journal of Oral Pathology & Medicine - Official Publication of the International Association of Oral Pathologists and the American Academy of Oral Pathology* 1997;26(9):408-413. Not sensitivity or specificity of an identified test
- Nathavitharana K A, Lloyd D R, Raafat F et al. Urinary mannitol: lactulose excretion ratios and jejunal mucosal structure. *Archives of Disease in Childhood* 1988;63(9):1054-1059. Not sensitivity or specificity of an identified test
- Natter S, Granditsch G, Reichel G L et al. IgA cross-reactivity between a nuclear autoantigen and wheat proteins suggests molecular mimicry as a possible pathomechanism in celiac disease. *European Journal of Immunology* 2001;31(3):918-928. Not sensitivity or specificity of an identified test
- Negi M, Colbert M C, Goldsmith L A. High-molecular-weight human epidermal transglutaminase. *Journal of Investigative Dermatology* 1985;85(1):75-78. Not sensitivity or specificity of an identified test
- Nehra V. New clinical issues in celiac disease. *Gastroenterology Clinics of North America* 1998;27(2):453-465. Not sensitivity or specificity of an identified test
- Nehra V, Angulo P, Buchman A L et al. Nutritional and metabolic considerations in the etiology of nonalcoholic steatohepatitis. *Digestive Diseases and Sciences* 2001;46(11):2347-2352. Not sensitivity or specificity of an identified test
- Nelsen David A. Gluten-sensitive enteropathy (celiac disease): more common than you think. *American Family Physician* 2002;66(12):2259-2266. Not sensitivity or specificity of an identified test
- Nelson E W, Ertan A, Brooks F P et al. Thrombocytosis in patients with celiac sprue. *Gastroenterology* 1976;70(6):1042-1044. Not sensitivity or specificity of an identified test
- Nelson R, McNeish A S, Anderson C M. Coeliac disease in children of Asian immigrants. *Lancet* 1973;1(7799):348-350. Not sensitivity or specificity of an identified test
- Nemes Z, Thomazy V. Diagnostic significance of histiocyte-related markers in malignant histiocytosis and true histiocytic lymphoma. *Cancer* 1988;62(9):1970-1980. Not sensitivity or specificity of an identified test
- Nemes Z, Adany R, Thomazy V. Selective visualization of human dendritic reticulum cells in reactive lymphoid follicles by the immunohistochemical demonstration of the subunit A of factor XIII (F-XIIIa). *Virchows Archiv.B, Cell Pathology Including Molecular Pathology* 1987;52(5):453-466. Not sensitivity or specificity of an identified test
- Nemes Z, Adany R, Balazs M et al. Identification of cytoplasmic actin as an abundant glutaminy substrate for tissue transglutaminase in HL-60 and U937 cells undergoing apoptosis. *Journal of Biological Chemistry* 1997;272(33):20577-20583. Not sensitivity or specificity of an identified test

- Nemes Z, Thomazy V, Adany R et al. Identification of histiocytic reticulum cells by the immunohistochemical demonstration of factor XIII (F-XIIIa) in human lymph nodes. *Journal of Pathology* 1986;149(2):121-132. Not sensitivity or specificity of an identified test
- Nepom G T. MHC genes in HLA-associated disease. *Current Opinion in Immunology* 1989;2(4):588-592. Not sensitivity or specificity of an identified test
- Nepom G T. Structural variation among major histocompatibility complex class-II genes which predispose to autoimmunity. *Immunol Res* 1989;8(1):16-38. Not sensitivity or specificity of an identified test
- Nepom G T, Erlich H. MHC class-II molecules and autoimmunity. *Annu Rev Immunol* 1991;9:493-525. Not sensitivity or specificity of an identified test
- Nestle F O, Zheng X G, Thompson C B et al. Characterization of dermal dendritic cells obtained from normal human skin reveals phenotypic and functionally distinctive subsets. *Journal of Immunology (Baltimore, Md.- 1950)* 1993;151(11):6535-6545. Not sensitivity or specificity of an identified test
- Neuberger J. PBC and the gut: the villi atrophy, the plot thickens. *Gut* 1999;44(5):594-595. Not sensitivity or specificity of an identified test
- Neuhausen Susan L, Feolo Mike, Camp Nicola J et al. Genome-wide linkage analysis for celiac disease in North American families. *American Journal of Medical Genetics* 2002;111(1):1-9. Not sensitivity or specificity of an identified test
- Neuhausen Susan L, Weizman Zvi, Camp Nicola J et al. HLA DQA1-DQB1 genotypes in Bedouin families with celiac disease. *Human Immunology* 2002;63(6):502-507. Improper control group
- Nezelof C, Barbey S, Gogusev J et al. Malignant histiocytosis in childhood: a distinctive CD30-positive clinicopathological entity associated with a chromosomal translocation involving 5q35. *Seminars in Diagnostic Pathology* 1992;9(1):75-89. Not sensitivity or specificity of an identified test
- Nicholas D S, Harris S, Wright D H. Lymphocyte predominance Hodgkin's disease--an immunohistochemical study. *Histopathology* 1990;16(2):157-165. Not sensitivity or specificity of an identified test
- Nicholl R M, Gamsu H R. Reduced mesenteric blood flow velocity in 'AGA' VLBW babies with disproportionate growth retardation. *Early Hum Dev* 1997;49(3):209-210. Not sensitivity or specificity of an identified test
- Nickoloff B J, Griffiths C E. The spindle-shaped cells in cutaneous Kaposi's sarcoma. Histologic simulators include factor XIIIa dermal dendrocytes. *American Journal of Pathology* 1989;135(5):793-800. Not sensitivity or specificity of an identified test
- Nicolas M E O, Krause P K, Gibson L E et al. Dermatitis herpetiformis. *International Journal of Dermatology* 2003;42(8):588-600. Not sensitivity or specificity of an identified test
- Nicolette C C, Tully T E. The duodenum in celiac sprue. *American Journal of Roentgenology, Radium Therapy, and Nuclear Medicine* 1971;113(2):248-254. Not sensitivity or specificity of an identified test
- Nielsen K. Coeliac disease: alpha-1-antitrypsin contents in jejunal mucosa before and after gluten-free diet. *Histopathology* 1984;8(5):759-764. Not sensitivity or specificity of an identified test
- Nieminen U, Kahri A, Savilahti E et al. Duodenal disaccharidase activities in the follow-up of villous atrophy in coeliac disease. *Scandinavian Journal of Gastroenterology* 2001;36(5):507-510. Not sensitivity or specificity of an identified test
- Nieto A, Blanco Quiros A, Arranz E et al. Study of HLA-DQA1 alleles in celiac children. *Journal of Investigational Allergology & Clinical Immunology - Official Organ of the International Association of Asthmology (Interasma) and Sociedad Latinoamericana De Alergia E Inmunologia* 1995;5(4):209-215. Unable to extract data
- Nieuwenhuizen W F, Pieters R H H, Knippels L M J et al. Is *Candida albicans* a trigger in the onset of coeliac disease?. *Lancet* 2003;361(9375):2152-2154. Not sensitivity or specificity of an identified test
- Nikkels A F, Arrese Estrada J, Pierard-Franchimont C et al. CD68 and factor XIIIa expressions in granular-cell tumor of the skin. *Dermatology (Basel, Switzerland)* 1993;186(2):106-108. Not sensitivity or specificity of an identified test
- Nilsen E M, Gjertsen H A, Jensen K et al. Gluten activation of peripheral blood T cells induces a Th0-like cytokine pattern in both coeliac patients and controls. *Clinical and Experimental Immunology* 1996;103(2):295-303. Not sensitivity or specificity of an identified test
- Nilsen E M, Jahnsen F L, Lundin K E et al. Gluten induces an intestinal cytokine response strongly dominated by interferon gamma in patients with celiac disease. *Gastroenterology* 1998;115(3):551-563. Not sensitivity or specificity of an identified test
- Nilsen E M, Lundin K E, Krajci P et al. Gluten specific, HLA-DQ restricted T cells from coeliac mucosa produce cytokines with Th1 or Th0 profile dominated by interferon gamma. *Gut* 1995;37(6):766-776. Not sensitivity or specificity of an identified test
- Nilssen D E, Brandtzaeg P, Froland S S et al. Subclass composition and J-chain expression of the 'compensatory'

gastrointestinal IgG cell population in selective IgA deficiency. *Clinical and Experimental Immunology* 1992;87(2):237-245. Not sensitivity or specificity of an identified test

Nishida K, Yamanishi K, Yamada K et al. Epithelial hyperproliferation and transglutaminase 1 gene expression in Stevens-Johnson syndrome conjunctiva. *American Journal of Pathology* 1999;154(2):331-336. Not sensitivity or specificity of an identified test

Nishimura T, Horino K, Nishiura H et al. Apoptotic cells of an epithelial cell line, AsPC-1, release monocyte chemotactic S19 ribosomal protein dimer. *Journal of Biochemistry* 2001;129(3):445-454. Not sensitivity or specificity of an identified test

Nishiura H, Shibuya Y, Yamamoto T. S19 ribosomal protein cross-linked dimer causes monocyte-predominant infiltration by means of molecular mimicry to complement C5a. *Laboratory Investigation* 1998;A *Journal of Technical Methods and Pathology*; 78(12):1615-1623. Not sensitivity or specificity of an identified test

Niveloni S, Dezi R, Pedreira S et al. Gluten sensitivity in patients with primary biliary cirrhosis. *American Journal of Gastroenterology* 1998;93(3):404-408. Not sensitivity or specificity of an identified test

Niveloni S, Fiorini A, Dezi R et al. Usefulness of videoduodenoscopy and vital dye staining as indicators of mucosal atrophy of celiac disease: assessment of interobserver agreement. *Gastrointestinal Endoscopy* 1998;47(3):223-229. Not sensitivity or specificity of an identified test

Niveloni S, Pedreira S, Sugai E et al. The natural history of gluten sensitivity: report of two new celiac disease patients resulting from a long-term follow-up of nonatrophic, first-degree relatives. *American Journal of Gastroenterology* 2000;95(2):463-468. Not sensitivity or specificity of an identified test

Niveloni S, Weksler-Zangen S, Pedreira S et al. Time course of nitric oxide synthase generation after gluten exposure in the rectal mucosa of gluten-sensitive patients. *Scandinavian Journal of Gastroenterology* 2000;35(11):1150-1156. Not sensitivity or specificity of an identified test

Niven M J, Caffrey C, Moore R H et al. T-cell receptor beta-subunit gene polymorphism and autoimmune disease. *Hum Immunol* 1990;27(4):360-367. Not sensitivity or specificity of an identified test

Noh K W, Poland G A, Murray J A. Hepatitis B Vaccine Nonresponse and Celiac Disease. *American Journal of Gastroenterology* 2003;98(10):2289-2292. Not sensitivity or specificity of an identified test

Noone C, Menzies I S, Banatvala J E et al. Intestinal permeability and lactose hydrolysis in human rotaviral

gastroenteritis assessed simultaneously by non-invasive differential sugar permeation. *European Journal of Clinical Investigation* 1986;16(3):217-225. Not sensitivity or specificity of an identified test

Norsgaard H, Clark B F, Rattan S I. Distinction between differentiation and senescence and the absence of increased apoptosis in human keratinocytes undergoing cellular aging in vitro. *Experimental Gerontology* 1996;31(5):563-570. Not sensitivity or specificity of an identified test

Nosari I, Casati A, Mora C et al. The use of IgA-antiendomysial antibody test for screening coeliac disease in insulin-dependent diabetes mellitus. *Diabetes Nutr Metab Clin Exp* 1996;9(5):267-272. Not sensitivity or specificity of an identified test

Not T, Citta A, Lucchesi A et al. Anti-endomysium antibody on human umbilical cord vein tissue: an inexpensive and sensitive diagnostic tool for the screening of coeliac disease. *European Journal of Pediatrics* 1997;156(8):616-618. Improper control group

Not T, Horvath K, Hill I D et al. Celiac disease risk in the USA: high prevalence of antiendomysium antibodies in healthy blood donors. *Scandinavian Journal of Gastroenterology* 1998;33(5):494-498. Not sensitivity or specificity of an identified test

Not T, Tommasini A, Tonini G et al. Undiagnosed coeliac disease and risk of autoimmune disorders in subjects with Type I diabetes mellitus. *Diabetologia* 2001;44(2):151-155. Not sensitivity or specificity of an identified test

Not T, Ventura A, Peticarari S et al. A new, rapid, noninvasive screening test for celiac disease. *Journal of Pediatrics* 1993;123(3):425-427. Improper control group

Not Tarcisio, Faleschini Elena, Tommasini Alberto et al. Celiac disease in patients with sporadic and inherited cardiomyopathies and in their relatives. *European Heart Journal* 2003;24(15):1455-1461. Not sensitivity or specificity of an identified test

Nousia-Arvanitakis S, Karagiozoglou-Lamboudes T, Aggouridaki C et al. Influence of jejunal morphology changes on exocrine pancreatic function in celiac disease. *Journal of Pediatric Gastroenterology and Nutrition* 1999;29(1):81-85. Not sensitivity or specificity of an identified test

Novacek G, Miehsler W, Wrba F et al. Prevalence and clinical importance of hypertransaminasaemia in coeliac disease. *European Journal of Gastroenterology & Hepatology* 1999;11(3):283-288. Not sensitivity or specificity of an identified test

Novak Petr, Man Petr, Tuckova Ludmila et al. Monitoring of in vitro deamidation of gliadin peptic fragment by mass spectrometry may reflect one of the molecular mechanisms taking place in celiac disease development. *Journal of Mass Spectrometry - Jms* 2002;37(5):507-511. Not sensitivity or

specificity of an identified test

Nowak T V, Ghishan F K, Schulze-Delrieu K. Celiac sprue in Down Syndrome: considerations on a pathogenetic link. *American Journal of Gastroenterology* 1983;78(5):280-283. Not sensitivity or specificity of an identified test

Nunes I, Gleizes P E, Metz C N et al. Latent transforming growth factor-beta binding protein domains involved in activation and transglutaminase-dependent cross-linking of latent transforming growth factor-beta. *Journal of Cell Biology* 1997;136(5):1151-1163. Not sensitivity or specificity of an identified test

Nurminskaya M V, Linsenmayer T F. Immunohistological analysis of transglutaminase factor XIIIa expression in mouse embryonic growth plate. *J Orthop Res* 2002;20(3):575-578. Not sensitivity or specificity of an identified test

Nuti R, Martini G, Valenti R et al. Prevalence of undiagnosed coeliac syndrome in osteoporotic women. *Journal of Internal Medicine* 2001;250(4):361-366. Not sensitivity or specificity of an identified test

Nyren O, Adami H-O, Gustavsson S. The 'epigastric distress syndrome'. A possible disease entity identified by history and endoscopy in patients with nonulcer dyspepsia. *Journal of Clinical Gastroenterology* 1987;9(3):303-309. Not sensitivity or specificity of an identified test

O'Brien M, Colwell R. Modified taurocholate-tellurite-gelatin agar for improved differentiation of *Vibrio* species. *Journal of Clinical Microbiology* 1985;22(6):1011-1013. Not sensitivity or specificity of an identified test

O'Brien R M, Thomas W R, Nicholson I et al. An immunogenetic analysis of the T-cell recognition of the major house dust mite allergen Der p 2: Identification of high- and low-responder HLA-DQ alleles and localization of T-cell epitopes. *Immunology* 1995;86(2):176-182. Not sensitivity or specificity of an identified test

O'Donnell B F, O'Neill C M, Francis D M et al. Human leucocyte antigen class II associations in chronic idiopathic urticaria. *Br J Dermatol* 1999;140(5):853-858. Not sensitivity or specificity of an identified test

O'Driscoll B R, Stevens F M, O'Gorman T A et al. HLA type of patients with coeliac disease and malignancy in the west of Ireland. *Gut* 1982;23(8):662-665. Not sensitivity or specificity of an identified test

O'Farrelly C. Is villous atrophy always and only the result of gluten sensitive disease of the intestine?. *European Journal of Gastroenterology & Hepatology* 2000;12(6):605-608. Not sensitivity or specificity of an identified test

O'Farrelly C, Feighery C, O'Briain D S et al. Humoral response to wheat protein in patients with coeliac disease and enteropathy associated T cell lymphoma. *British Medical Journal (Clinical Research Ed.)*

1986;293(6552):908-910. Not sensitivity or specificity of an identified test

O'Farrelly C, Graeme-Cook F, Hourihane D O et al. Histological changes associated with wheat protein antibodies in the absence of villous atrophy. *Journal of Clinical Pathology* 1987;40(10):1228-1230. Unable to extract data

O'Farrelly C, Kelly J, Hekkens W et al. Alpha gliadin antibody levels: a serological test for coeliac disease. *British Medical Journal (Clinical Research Ed.)* 1983;286(6383):2007-2010. Serology <1990

O'Farrelly C, O'Mahony C, Graeme-Cook F et al. Gliadin antibodies identify gluten-sensitive oral ulceration in the absence of villous atrophy. *Journal of Oral Pathology & Medicine - Official Publication of the International Association of Oral Pathologists and the American Academy of Oral Pathology* 1991;20(10):476-478. Not sensitivity or specificity of an identified test

O'Grady J G, Stevens F M, McCarthy C F. Celiac disease: does hyposplenism predispose to the development of malignant disease?. *American Journal of Gastroenterology* 1985;80(1):27-29. Not sensitivity or specificity of an identified test

O'Grady J G, Stevens F M, McCarthy C F. Genetic influences on splenic function in coeliac disease. *Gut* 1985;26(10):1004-1007. Not sensitivity or specificity of an identified test

O'Grady J G, Stevens F M, Harding B et al. Effect of splenectomy and the functional hyposplenism of coeliac disease on auto-antibody formation. *Irish Journal of Medical Science* 1984;153(10):351-354. Not sensitivity or specificity of an identified test

O'Grady J G, Stevens F M, Harding B et al. Hyposplenism and gluten-sensitive enteropathy. Natural history, incidence, and relationship to diet and small bowel morphology. *Gastroenterology* 1984;87(6):1326-1331. Not sensitivity or specificity of an identified test

O'Grady J G, Stevens F M, Keane R et al. Intestinal lactase, sucrase, and alkaline phosphatase in 373 patients with coeliac disease. *Journal of Clinical Pathology* 1984;37(3):298-301. Not sensitivity or specificity of an identified test

O'Halloran E T, Read M, Morrissey-Walsh E M. Coeliac disease in children: Problems in diagnosis and management. *Ir Med J* 1985;78(7):188-191. Not sensitivity or specificity of an identified test

O'Halloran E T, Read M, Barry R G et al. The management of coeliac disease. *Irish Medical Journal* 1998;91(6):199-202. Not sensitivity or specificity of an identified test

O'Keefe S J. Nutrition and gastrointestinal disease. *Scandinavian Journal of Gastroenterology*. Supplement

1996;22052-59. Not sensitivity or specificity of an identified test

O'Keefe J, Lynch S, Whelan A et al. Flow cytometric measurement of intracellular migration inhibition factor and tumour necrosis factor alpha in the mucosa of patients with coeliac disease. *Clinical and Experimental Immunology* 2001;125(3):376-382. Not sensitivity or specificity of an identified test

O'Keefe J, Mills K, Jackson J et al. T cell proliferation, MHC class II restriction and cytokine products of gliadin-stimulated peripheral blood mononuclear cells (PBMC). *Clinical and Experimental Immunology* 1999;117(2):269-276. Not sensitivity or specificity of an identified test

O'Laughlin J C, Di Giovanni A M. Psoriatic enteropathy: Report of case and review of literature. *J Am Osteopath Assoc* 1979;79(2):107-112. Not sensitivity or specificity of an identified test

O'Leary C, Walsh C H, Wieneke P et al. Coeliac disease and autoimmune Addison's disease: a clinical pitfall. *Qjm - Monthly Journal of the Association of Physicians* 2002;95(2):79-82. Not sensitivity or specificity of an identified test

O'Mahony S, Arranz E, Barton J R et al. Dissociation between systemic and mucosal humoral immune responses in coeliac disease. *Gut* 1991;32(1):29-35. Not sensitivity or specificity of an identified test

O'Mahony S, Barton J R, Crichton S et al. Appraisal of gut lavage in the study of intestinal humoral immunity. *Gut* 1990;31(12):1341-1344. Not sensitivity or specificity of an identified test

O'Mahony S, Vestey J P, Ferguson A. Similarities in intestinal humoral immunity in dermatitis herpetiformis without enteropathy and in coeliac disease. *Lancet* 1990;335(8704):1487-1490. Not sensitivity or specificity of an identified test

Oberhuber G. Histopathology of celiac disease. *Biomedicine & Pharmacotherapy = Biomedecine & Pharmacotherapie* 2000;54(7):368-372. Review article

Oberhuber G, Granditsch G, Vogelsang H. The histopathology of coeliac disease: time for a standardized report scheme for pathologists. *European Journal of Gastroenterology & Hepatology* 1999;11(10):1185-1194. Not sensitivity or specificity of an identified test

Oberhuber G, Schwarzenhofer M, Vogelsang H. In vitro model of the pathogenesis of celiac disease. *Digestive Diseases (Basel, Switzerland)* 1998;16(6):341-344. Not sensitivity or specificity of an identified test

Oderda G, Forni M, Morra I et al. Endoscopic and histologic findings in the upper gastrointestinal tract of children with coeliac disease. *Journal of Pediatric Gastroenterology and Nutrition* 1993;16(2):172-177. Not

sensitivity or specificity of an identified test

Oforu M H, Dunston G, Henry L et al. HLA-DQ3 is associated with Graves' disease in African-Americans. *Immunological Investigations* 1996;25(1-2):103-110. Not sensitivity or specificity of an identified test

Ogawa H, Goldsmith L A. Human epidermal transglutaminase. II. Immunologic properties. *Journal of Investigative Dermatology* 1977;68(1):32-35. Not sensitivity or specificity of an identified test

Oh J H, MacLean L D. Diseases associated with specific HL-A antigens. *Canadian Medical Association Journal* 1975;112(11):1315-1318. Not sensitivity or specificity of an identified test

Ohashi H, Itoh Y, Birckbichler P J et al. Purification and characterization of rat brain transglutaminase. *Journal of Biochemistry* 1995;118(6):1271-1278. Not sensitivity or specificity of an identified test

Oiso M, Nishi T, Ishikawa T et al. Differential binding of peptides substituted at putative C-terminal anchor residues to HLA-DQ8 and DQ9 differing only at betasup 5sup 7. *Hum Immunol* 1997;52(1):47-53. Not sensitivity or specificity of an identified test

Okamoto M, Yamamoto T, Matsubara S et al. Factor XIII-dependent generation of 5th complement component(C5)-derived monocyte chemotactic factor coinciding with plasma clotting. *Biochimica Et Biophysica Acta* 1992;1138(1):53-61. Not sensitivity or specificity of an identified test

Oktedalen O, Skar V, Dahl E et al. Changes in small intestinal structure and function in HIV-infected patients with chronic diarrhoea. *Scandinavian Journal of Infectious Diseases* 1998;30(5):459-463. Not sensitivity or specificity of an identified test

Okuno M, Kojima S, Moriwaki H. Chemoprevention of hepatocellular carcinoma: concept, progress and perspectives. *Journal of Gastroenterology and Hepatology* 2001;16(12):1329-1335. Not sensitivity or specificity of an identified test

Okuno M, Sano T, Matsushima-Nishiwaki R et al. Apoptosis induction by acyclic retinoid: a molecular basis of 'clonal deletion' therapy for hepatocellular carcinoma. *Japanese Journal of Clinical Oncology* 2001;31(8):359-362. Not sensitivity or specificity of an identified test

Olaussen R W, Johansen F E, Lundin K E A et al. Interferon-gamma-secreting T cells localize to the epithelium in coeliac disease. *Scand J Immunol* 2002;56(6):652-664. Not sensitivity or specificity of an identified test

Olds G, McLoughlin R, O'Morian C et al. Celiac disease for the endoscopist. *Gastrointest Endosc* 2002;56(3):407-415. Not sensitivity or specificity of an identified test

Olerup O, Olsson R, Hultcrantz R et al. HLA-DR and HLA-DQ are not markers for rapid disease progression in primary sclerosing cholangitis. *Gastroenterology* 1995;108(3):870-878. Not sensitivity or specificity of an identified test

Oliva A, Armas H, Farina J B. HPLC determination of polyethylene glycol 400 in urine: Oligomeric profile in healthy and celiac disease subjects. *Clinical Chemistry* 1994;40(8):1571-1574. Not sensitivity or specificity of an identified test

Oliver R T D. Histocompatibility antigens and human disease. *Br J Hosp Med* 1977;18(5):449-459. Not sensitivity or specificity of an identified test

Oliverio S, Amendola A, Di Sano F et al. Tissue transglutaminase-dependent posttranslational modification of the retinoblastoma gene product in promonocytic cells undergoing apoptosis. *Mol Cell Biol* 1997;17(10):6040-6048. Not sensitivity or specificity of an identified test

Oliverio S, Amendola A, Rodolfo C et al. Inhibition of "tissue" transglutaminase increases cell survival by preventing apoptosis. *Journal of Biological Chemistry* 1999;274(48):34123-34128. Not sensitivity or specificity of an identified test

Olives PrJ. Coeliac disease and gluten intolerance: New data for a new method of treatment. *Rev Med Liban* 2000;12(3):127-128. Not sensitivity or specificity of an identified test

Olorundare O E, Peyruchaud O, Albrecht R M et al. Assembly of a fibronectin matrix by adherent platelets stimulated by lysophosphatidic acid and other agonists. *Blood* 2001;98(1):117-124. Not sensitivity or specificity of an identified test

Olsen W A. A pathophysiologic approach to diagnosis of malabsorption. *American Journal of Medicine* 1979;67(6):1007-1013. Not sensitivity or specificity of an identified test

Olsen W A. A practical approach to diagnosis of disorders of intestinal absorption. *New England Journal of Medicine* 1971;285(24):1358-1361. Not sensitivity or specificity of an identified test

Olson D J, Fujimura M, Swanson P et al. Immunohistochemical features of Paget's disease of the vulva with and without adenocarcinoma. *Int J Gynecol Pathol* 1991;10(3):285-295. Not sensitivity or specificity of an identified test

Olsson R, Kagevi I, Rydberg L. On the concurrence of primary biliary cirrhosis and intestinal villous atrophy. *Scandinavian Journal of Gastroenterology* 1982;17(5):625-628. Not sensitivity or specificity of an identified test

Orgad S, Avigad S, Jonas A et al. Immunogenetics of

childhood celiac disease: the association with HDA DR3 and DR7 in unrelated patients with multiply affected families. *Israel Journal of Medical Sciences* 1981;17(11):1041-1044. Not sensitivity or specificity of an identified test

Orru S, Caputo I, D'Amato A et al. Proteomics identification of acyl-acceptor and acyl-donor substrates for transglutaminase in a human intestinal epithelial cell line. Implications for celiac disease. *J Biol Chem* 2003;278(34):31766-31773. Not sensitivity or specificity of an identified test

Osa A, Almenar L, Palencia M et al. Antigens of the major histocompatibility system in ischemic heart disease and idiopathic dilated cardiomyopathy. *Clin Cardiol* 1999;22(4):292-296. Not sensitivity or specificity of an identified test

Osman A A, Gunnel T, Dietl A et al. B cell epitopes of gliadin. *Clinical and Experimental Immunology* 2000;121(2):248-254. Not sensitivity or specificity of an identified test

Osman A A, Richter T, Stern M et al. The IgA subclass distributions of endomysium and gliadin antibodies in human sera are different. *Clinica Chimica Acta* 1996;International Journal of Clinical Chemistry; 255(2):145-152. Not sensitivity or specificity of an identified test

Osman A A, Uhlig H, Thamm B et al. Use of the phage display technique for detection of epitopes recognized by polyclonal rabbit gliadin antibodies. *Febs Letters* 1998;433(1-2):103-107. Not sensitivity or specificity of an identified test

Osman Awad A, Richter Thomas, Stern Martin et al. Production of recombinant human tissue transglutaminase using the baculovirus expression system, and its application for serological diagnosis of coeliac disease. *European Journal of Gastroenterology & Hepatology* 2002;14(11):1217-1223. Test-specific exclusion

Otley C, Hall R P. Dermatitis herpetiformis. *Dermatol Clin* 1990;8(4):759-769. Not sensitivity or specificity of an identified test

Otley C C, Hall R P. The pathogenesis of dermatitis herpetiformis. *Clinics in Dermatology* 1991;9(3):313-323. Not sensitivity or specificity of an identified test

Otley C C, Wenstrup R J, Hall R P. DNA sequence analysis and restriction fragment length polymorphism (RFLP) typing of the HLA-DQw2 alleles associated with dermatitis herpetiformis. *Journal of Investigative Dermatology* 1991;97(2):318-322. Not sensitivity or specificity of an identified test

Ots M, Uibo O, Metskula K et al. IgA-antigliadin antibodies in patients with IgA nephropathy: the secondary phenomenon?. *American Journal of Nephrology*

- 1999;19(4):453-458. Not sensitivity or specificity of an identified test
- Ott D J. Celiac disease: biopsy or enteroclysis better for evaluating response to a gluten-free diet?. *American Journal of Gastroenterology* 1997;92(4):715-716. Not sensitivity or specificity of an identified test
- Ottaway C A. Activated T cells and genetic restriction in celiac disease. *Journal of Pediatric Gastroenterology and Nutrition* 1994;19(2):250-251. Not sensitivity or specificity of an identified test
- Otto H F, Bettmann I, Weltzien v J et al. Primary intestinal lymphomas. *Virchows Arch Abt A Pathol Anat* 1981;391(1):9-31. Not sensitivity or specificity of an identified test
- Owens D W, Brunton V G, Parkinson E K et al. E-cadherin at the cell periphery is a determinant of keratinocyte differentiation in vitro. *Biochemical and Biophysical Research Communications* 2000;269(2):369-376. Not sensitivity or specificity of an identified test
- Oxentenko A S, Murray J A. Celiac disease and dermatitis herpetiformis: The spectrum of gluten-sensitive enteropathy. *International Journal of Dermatology* 2003;42(8):585-587. Not sensitivity or specificity of an identified test
- Oxentenko Amy S, Grisolano Scott W, Murray Joseph A et al. The insensitivity of endoscopic markers in celiac disease. *American Journal of Gastroenterology* 2002;97(4):933-938. Not sensitivity or specificity of an identified test
- Ozgenç F, Aksu G, Aydogdu S et al. Association between anti-endomysial antibody and total intestinal villous atrophy in children with coeliac disease. *Journal of Postgraduate Medicine* 2003;49(1):21-24. Improper control group
- Ozkan T, Ozeke T, Meral A. Gliadin-specific IgA antibodies in breast milk. *Journal of International Medical Research* 2000;28(5):234-240. Not sensitivity or specificity of an identified test
- Ozkara C, Altintas A, Yilmaz E et al. An association between mesial temporal lobe epilepsy with hippocampal sclerosis and human leukocyte antigens. *Epilepsia* 2002;43(3):236-239. Not sensitivity or specificity of an identified test
- Pacheco L S, Sotto M N. Factor XIIIa+ dermal dendrocytes in erythema elevatum diutinum and ordinary cutaneous leukocytoclastic vasculitis lesions. *Journal of Cutaneous Pathology* 2000;27(3):136-140. Not sensitivity or specificity of an identified test
- Packer S M, Charlton V, Keeling J W et al. Gluten challenge in treated coeliac disease. *Archives of Disease in Childhood* 1978;53(6):449-455. Not sensitivity or specificity of an identified test
- Packer S, Rowlatt R J, Harries J T. Proceedings: Reappraisal of a past diagnosis of "coeliac disease". *Archives of Disease in Childhood* 1974;49(10):819. Not sensitivity or specificity of an identified test
- Paddenberg R, Flocke K, Elsasser H P et al. Phenotypical changes of a human pancreatic adenocarcinoma cell line after selection on laminin-1/midogen (LM/NG) substratum. *European Journal of Cell Biology* 1998;76(4):251-264. Not sensitivity or specificity of an identified test
- Padmanabhan Vijayalakshmi, Callas Peter W, Li Shuan C et al. Histopathological features of the terminal ileum in lymphocytic and collagenous colitis: a study of 32 cases and review of literature. *Modern Pathology - an Official Journal of the United States and Canadian Academy of Pathology, Inc* 2003;16(2):115-119. Not sensitivity or specificity of an identified test
- Padykula H A, Strauss E W, Ladman A J et al. A morphologic and histochemical analysis of the human jejunal epithelium in nontropical sprue. *Gastroenterology* 1968;54(4):Suppl. Unable to extract data
- Paerregaard A, Vilien M, Krasilnikoff P A et al. Supposed coeliac disease during childhood and its presentation 14-38 years later. *Scandinavian Journal of Gastroenterology* 1988;23(1):65-70. Not sensitivity or specificity of an identified test
- Page S R, Lloyd C A, Hill P G et al. The prevalence of coeliac disease in adult diabetes mellitus. *Qjm - Monthly Journal of the Association of Physicians* 1994;87(10):631-637. Not sensitivity or specificity of an identified test
- Paimela L, Kurki P, Leirisalo-Repo M et al. Gliadin immune reactivity in patients with rheumatoid arthritis. *Clinical and Experimental Rheumatology* 1995;13(5):603-607. Not sensitivity or specificity of an identified test
- Palavecino E A, Mota A H, Awad J et al. HLA and celiac disease in Argentina: involvement of the DQ subregion. *Disease Markers* 1990;8(1):5-10. Improper control group
- Pallet V, Azais-Braesco V, Enderlin V et al. Aging decreases retinoic acid and triiodothyronine nuclear expression in rat liver: Exogenous retinol and retinoic acid differentially modulate this decreased expression. *Mech Ageing Dev* 1998;99(2):123-136. Not sensitivity or specificity of an identified test
- Palosuo K, Alenius H, Varjonen E et al. Rye gamma-70 and gamma-35 secalins and barley gamma-3 hordein cross-react with omega-5 gliadin, a major allergen in wheat-dependent, exercise-induced anaphylaxis. *Clinical and Experimental Allergy - Journal of the British Society for Allergy and Clinical Immunology* 2001;31(3):466-473. Not sensitivity or specificity of an identified test
- Palosuo Kati, Varjonen Elina, Nurkkala Jenni et al.

- Transglutaminase-mediated cross-linking of a peptic fraction of omega-5 gliadin enhances IgE reactivity in wheat-dependent, exercise-induced anaphylaxis. *Journal of Allergy and Clinical Immunology* 2003;111(6):1386-1392. Not sensitivity or specificity of an identified test
- Pani M A, Van Autreve J, Van der et al. Non-transmitted maternal HLA DQ2 or DQ8 alleles and risk of Type I diabetes in offspring: the importance of foetal or post partum exposure to diabetogenic molecules. *Diabetologia* 2002;45(9):1340-1343. Not sensitivity or specificity of an identified test
- Pani Michael A, Seidl Christian, Bieda Katrin et al. Preliminary evidence that an endogenous retroviral long-terminal repeat (LTR13) at the HLA-DQB1 gene locus confers susceptibility to Addison's disease. *Clinical Endocrinology* 2002;56(6):773-777. Not sensitivity or specificity of an identified test
- Pani Michael A, Wood Jeffrey P, Bieda Katrin et al. The variable endogenous retroviral insertion in the human complement C4 gene: a transmission study in type I diabetes mellitus. *Human Immunology* 2002;63(6):481-484. Not sensitivity or specificity of an identified test
- Papadatou B, Crino A, Giannotti A et al. Antiendomysial and antigliadin antibodies in patients with Down syndrome. *Dev Brain Dysfunct* 1996;9(2-3):129-132. Not sensitivity or specificity of an identified test
- Papadopoulos A J, Schwartz R A, Krysicka Janniger C. Alopecia areata: Emerging concepts. *Acta Dermatovenerol Alp Panonica Adriat* 2000;9(3):83-90. Not sensitivity or specificity of an identified test
- Papadopoulos G K, Wijmenga C, Koning F. Interplay between genetics and the environment in the development of celiac disease: perspectives for a healthy life. *Journal of Clinical Investigation* 2001;108(9):1261-1266. Not sensitivity or specificity of an identified test
- Papadopoulos K I, Sjoberg K, Lindgren S et al. Evidence of gastrointestinal immune reactivity in patients with sarcoidosis. *Journal of Internal Medicine* 1999;245(5):525-531. Not sensitivity or specificity of an identified test
- Papouchado B G, Chapoval S P, Marietta E V et al. Cockroach allergen-induced eosinophilic airway inflammation in HLA-DQ/human CD4SUP+ transgenic mice. *J Immunol* 2001;167(8):4627-4634. Not sensitivity or specificity of an identified test
- Paranos S, Nikolic G. Lack of cross-reactivity between casein and gliadin in sera from coeliac disease patients. *International Archives of Allergy and Immunology* 1998;117(2):152-154. Not sensitivity or specificity of an identified test
- Pardi D S, Ramnath V R, Loftus E V et al. Lymphocytic colitis: Clinical features, treatment, and outcomes. *American Journal of Gastroenterology* 2002;97(11):2829-2833. Not sensitivity or specificity of an identified test
- Parent D, Bernard B A, Desbas C et al. Spreading of psoriatic plaques: alteration of epidermal differentiation precedes capillary leakiness and anomalies in vascular morphology. *Journal of Investigative Dermatology* 1990;95(3):333-340. Not sensitivity or specificity of an identified test
- Parham D M, Coghill G, Robertson A J. Critical evaluation of monoclonal antibody staining in breast carcinoma. *Journal of Clinical Pathology* 1989;42(8):810-813. Not sensitivity or specificity of an identified test
- Park M H, Hwang Y-S, Park K S et al. HLA haplotypes in Koreans based on 107 families. *Tissue Antigens* 1998;51(4):347-355. Not sensitivity or specificity of an identified test
- Park Y S, Sanjeevi C B, Robles D et al. Additional association of intra-MHC genes, MICA and D6S273, with Addison's disease. *Tissue Antigens* 2002;60(2):155-163. Not sensitivity or specificity of an identified test
- Parke A L. Gastrointestinal disorders and rheumatic diseases. *Curr Opin Rheumatol* 1993;5(1):79-84. Not sensitivity or specificity of an identified test
- Parkkonen P, Hyoty H, Ilonen J et al. Antibody reactivity to an Epstein-Barr virus BERF4-encoded epitope occurring also in Asp-57 region of HLA-DQ8 beta chain. *Clinical and Experimental Immunology* 1994;95(2):287-293. Not sensitivity or specificity of an identified test
- Parmentier L, Blanchet-Bardon C, Nguyen S et al. Autosomal recessive lamellar ichthyosis: identification of a new mutation in transglutaminase 1 and evidence for genetic heterogeneity. *Human Molecular Genetics* 1995;4(8):1391-1395. Not sensitivity or specificity of an identified test
- Parnell N, Ciclitira P J. Celiac disease. *Curr Opin Gastroenterol* 1999;15(2):120-124. Not sensitivity or specificity of an identified test
- Parnell N D, Ciclitira P J. Review article: coeliac disease and its management. *Alimentary Pharmacology & Therapeutics* 1999;13(1):1-13. Not sensitivity or specificity of an identified test
- Parrot Isabelle, Huang Philip C, Khosla Chaitan. Circular dichroism and nuclear magnetic resonance spectroscopic analysis of immunogenic gluten peptides and their analogs. *Journal of Biological Chemistry* 2002;277(47):45572-45578. Not sensitivity or specificity of an identified test
- Parsons K T, Kwok W W, Gaur L K et al. Increased frequency of HLA class II alleles DRB1\*0301 and DQB1\*0201 in Lambert-Eaton myasthenic syndrome without associated cancer. *Hum Immunol* 2000;61(8):828-833. Not sensitivity or specificity of an identified test

- Partanen J. The HLA-DRB4 gene does not explain genetic susceptibility in HLA-DQ2-negative celiac disease. *Immunogenetics* 2000;51(3):249-250. Not sensitivity or specificity of an identified test
- Partanen J, Milner C, Campbell R D et al. HLA-linked heat-shock protein 70 (HSP70-2) gene polymorphism and celiac disease. *Tissue Antigens* 1993;41(1):15-19. Not sensitivity or specificity of an identified test
- Parveen S, Morshed S A, Arima K et al. Antibodies to Ro/La, Cenp-B, and snRNPs antigens in autoimmune hepatitis of North America versus Asia: Patterns of immunofluorescence, ELISA reactivities, and HLA association. *Digestive Diseases and Sciences* 1998;43(6):1322-1331. Not sensitivity or specificity of an identified test
- Pasquali D, Rossi V, Prezioso D et al. Changes in tissue transglutaminase activity and expression during retinoic acid-induced growth arrest and apoptosis in primary cultures of human epithelial prostate cells. *Journal of Clinical Endocrinology and Metabolism* 1999;84(4):1463-1469. Not sensitivity or specificity of an identified test
- Passarge E, Valentine-Thon E. Everything the pediatrician ever wanted to know about HLA but was afraid to ask. *European Journal of Pediatrics* 1980;133(2):93-100. Not sensitivity or specificity of an identified test
- Pasternack A, Collin P, Mustonen J et al. Glomerular IgA deposits in patients with celiac disease. *Clinical Nephrology* 1990;34(2):56-60. Not sensitivity or specificity of an identified test
- Pastore R A. Celiac disease: Endoscopic observations. *American Journal of Gastroenterology* 1974;61(6):478-480. Not sensitivity or specificity of an identified test
- Patel R S, Johlin F C, Murray J A. Celiac disease and recurrent pancreatitis. *Gastrointestinal Endoscopy* 1999;50(6):823-827. Not sensitivity or specificity of an identified test
- Paterson C R, Burns J. Coeliac disease presenting with vitamin D deficiency in the elderly. *Eur J Intern Med* 1991;2(2):73-76. Not sensitivity or specificity of an identified test
- Patey N, Scoazec J Y, Cuenod-Jabri B et al. Distribution of cell adhesion molecules in infants with intestinal epithelial dysplasia (tufting enteropathy). *Gastroenterology* 1997;113(3):833-843. Not sensitivity or specificity of an identified test
- Patey-Mariaud de, Serre Cellier C, Jabri B et al. Distinction between coeliac disease and refractory sprue: a simple immunohistochemical method. *Histopathology* 2000;37(1):70-77. Not sensitivity or specificity of an identified test
- Patinen P, Bjorksten F, Malmstrom M et al. Salivary and serum IgA antigliadin antibodies in dermatitis herpetiformis. *European Journal of Oral Sciences* 1995;103(5):280-284. Not sensitivity or specificity of an identified test
- Patinen P, Savilahti E, Hietanen J et al. Intraepithelial lymphocytes bearing the gamma/delta receptor in the oral and jejunal mucosa in patients with dermatitis herpetiformis. *European Journal of Oral Sciences* 1997;105(2):130-135. Not sensitivity or specificity of an identified test
- Patney N L, Srivastava V K, Wahal p k et al. A study of fat malabsorption and jejunal mucosal biopsy in diabetic neuropathy: a preliminary report. *Journal of the Association of Physicians of India* 1973;21(9):777-785. Not sensitivity or specificity of an identified test
- Patterson R N, Johnston S D. Iron deficiency anaemia: Are the British Society of Gastroenterology guidelines being adhered to?. *Postgrad Med J* 2003;79(930):226-228. Not sensitivity or specificity of an identified test
- Paulley J W. Determinants of adult celiac disease. *New England Journal of Medicine* 1971;284(15):916. Not sensitivity or specificity of an identified test
- Paulsen G, Lundin K E, Gjertsen H A et al. HLA-DQ2-restricted T-cell recognition of gluten-derived peptides in celiac disease. Influence of amino acid substitutions in the membrane distal domain of DQ beta 1\*0201. *Human Immunology* 1995;42(2):145-153. Not sensitivity or specificity of an identified test
- Pavone L, Fiumara A, Bottaro G et al. Autism and celiac disease: failure to validate the hypothesis that a link might exist. *Biological Psychiatry* 1997;42(1):72-75. Not sensitivity or specificity of an identified test
- Pearce Allum B, Sinclair David, Duncan Hamish D et al. Use of the anti-endomysial antibody test to diagnose coeliac disease in clinical practice. *Clinical Laboratory* 2002;48(5-6):319-325. Improper control group
- Peces R, De la, Torre M et al. Prospective analysis of the factors influencing the antibody response to hepatitis B vaccine in hemodialysis patients. *Am J Kidney Dis* 1997;29(2):239-245. Not sensitivity or specificity of an identified test
- Pecsi G. Genetic associations and immunopathogenesis of coeliac disease. *Acta Physiologica Hungarica* 2000;87(4):339-353. Not sensitivity or specificity of an identified test
- Pehamberger H, Gschnait F, Menzel J et al. Failure to detect gliadin or gliadin binding sites in the skin of patients with dermatitis herpetiformis: immunofluorescence, organ culture and autoradiographic studies. *Journal of Investigative Dermatology* 1979;73(2):174-175. Not sensitivity or specificity of an identified test

- Pelkonen P, Savilahti E, Makela A L. Persistent and transient IgA deficiency in juvenile rheumatoid arthritis. *Scand J Rheumatol* 1983;12(3):273-279. Not sensitivity or specificity of an identified test
- Pellecchia M T, Ambrosio G, Salvatore E et al. Possible gluten sensitivity in multiple system atrophy. *Neurology* 2002;59(7):1114-1115. Not sensitivity or specificity of an identified test
- Pellecchia M T, Scala R, Filla A et al. Idiopathic cerebellar ataxia associated with celiac disease: lack of distinctive neurological features. *Journal of Neurology, Neurosurgery, and Psychiatry* 1999;66(1):32-35. Not sensitivity or specificity of an identified test
- Pellegrini G, Scotta M S, Soardo S et al. Elevated IgA anti-gliadin antibodies in juvenile chronic arthritis. *Clinical and Experimental Rheumatology* 1991;9(6):653-656. Not sensitivity or specificity of an identified test
- Pena A S, Mearin M L. Aetiopathogenesis of coeliac disease. *Acta Gastroenterol Belg* 1986;49(4):428-434. Not sensitivity or specificity of an identified test
- Pena A S, Wijmenga C. Genetic factors underlying gluten-sensitive enteropathy. *Current Allergy and Asthma Reports* 2001;1(6):526-533. Not sensitivity or specificity of an identified test
- Pena A S, Garrote J A, Crusius J B. Advances in the immunogenetics of coeliac disease. Clues for understanding the pathogenesis and disease heterogeneity. *Scandinavian Journal of Gastroenterology. Supplement* 1998;22556-58. Not sensitivity or specificity of an identified test
- Pena A S, Mann D L, Hague N E et al. Genetic basis of gluten-sensitive enteropathy. *Gastroenterology* 1978;75(2):230-235. Not sensitivity or specificity of an identified test
- Pena A S, Mearin M L, Biemond I. Genetics and heterogeneity in coeliac disease. *Acta Gastro-Enterologica Belgica* 1984;47(2):134-135. Not sensitivity or specificity of an identified test
- Pena A S, Truelove S C, Whitehead R. Disaccharidase activity and jejunal morphology in coeliac disease. *Quarterly Journal of Medicine* 1972;41(164):457-476. Unable to extract data
- Pena A S, Van Nieuwkoop J, Schuit H R E. Transient paraproteinaemia in a patient with coeliac disease. *Gut* 1976;17(9):735-739. Not sensitivity or specificity of an identified test
- Pena-Penabad C, de Unamuno P, Garcia Silva J et al. Altered expression of immunoreactive involucrin in lamellar ichthyosis. *European Journal of Dermatology - Ejd* 1999;9(3):197-201. Not sensitivity or specificity of an identified test
- Penedo-Pita M, Peteiro-Cartelle J. Increased serum levels of interleukin-2 and soluble interleukin-2 receptor in celiac disease. *Journal of Pediatric Gastroenterology and Nutrition* 1991;12(1):56-60. Not sensitivity or specificity of an identified test
- Penformis A, Tuomilehto-Wolf E, Faustman D L et al. Analysis of TAP2 polymorphisms in Finnish individuals with type I diabetes. *Hum Immunol* 2002;63(1):61-70. Not sensitivity or specificity of an identified test
- Peng X, Zhang Y, Zhang H et al. Interaction of tissue transglutaminase with nuclear transport protein importin-alpha3. *FEBS Letters* 1999;446(1):35-39. Not sensitivity or specificity of an identified test
- Pepper H W, Brandborg L L, Shanser J D et al. Collagenous sprue. *American Journal of Roentgenology, Radium Therapy, and Nuclear Medicine* 1974;121(2):275-282. Not sensitivity or specificity of an identified test
- Peraaho M, Kaukinen K, Paasikivi K et al. Wheat-starch-based gluten-free products in the treatment of newly detected coeliac disease: prospective and randomized study. *Alimentary Pharmacology & Therapeutics* 2003;17(4):587-594. Not sensitivity or specificity of an identified test
- Peracchi M, Bamonti-Catena F, Faggioli P et al. Duodenal mucosa and extracellular cyclic nucleotide pattern in coeliac disease. *Gut* 1993;34(6):769-773. Not sensitivity or specificity of an identified test
- Peracchi Maddalena, Trovato Cristina, Longhi Massimo et al. Tissue transglutaminase antibodies in patients with end-stage heart failure. *American Journal of Gastroenterology* 2002;97(11):2850-2854. Not sensitivity or specificity of an identified test
- Perdriger A. Do the HLA-DQ and DP genes play a role in rheumatoid arthritis?. *Jt Bone Spine* 2001;68(1):12-18. Not sensitivity or specificity of an identified test
- Pereira R M, Yoshinari N H, De Oliveira R M et al. Antigliangioside antibodies in patients with neuropsychiatric systemic lupus erythematosus. *Lupus* 1992;1(3):175-179. Not sensitivity or specificity of an identified test
- Perera D R, Weinstein W M, Rubin C E. Symposium on pathology of the gastrointestinal tract-Part II. Small intestinal biopsy. *Human Pathology* 1975;6(2):157-217. Not sensitivity or specificity of an identified test
- Perez-Bravo F, Araya M, Mondragon A et al. Genetic differences in HLA-DQA1\* and DQB1\* allelic distributions between celiac and control children in Santiago, Chile. *Human Immunology* 1999;60(3):262-267. Improper control group
- Perez-Machado Miguel A, Ashwood Paul, Thomson

- Michael A et al. Reduced transforming growth factor-beta1-producing T cells in the duodenal mucosa of children with food allergy. *European Journal of Immunology* 2003;33(8):2307-2315. Not sensitivity or specificity of an identified test
- Peri A, Cowan B D, Bhartiya D et al. Expression of Clara cell 10-kD gene in the human endometrium and its relationship to ovarian menstrual cycle. *Dna and Cell Biology* 1994;13(5):495-503. Not sensitivity or specificity of an identified test
- Perichon B, Krishnamoorthy R. Asthma and HLA system. *Allerg Immunol (Paris)* 1991;23(7):301-307. Not sensitivity or specificity of an identified test
- Perisic V N, Kokai G. Coeliac disease and lymphangiectasia. *Archives of Disease in Childhood* 1992;67(1):134-136. Not sensitivity or specificity of an identified test
- Perkkio M, Savilahti E, Kuitunen P. Semi-quantitative analysis of immunoglobulins and complement fractions 3 and 4 in the jejunal mucosa in coeliac disease and in food allergy in childhood. Immunohistochemical study by light and electron microscopy. *Acta Pathologica Et Microbiologica Scandinavica*. Section a, Pathology 1981;89(4):343-350. Not sensitivity or specificity of an identified test
- Perri F, Pastore M, Festa V et al. Intraduodenal lipase activity in celiac disease assessed by means of <sup>13</sup>C mixed-triglyceride breath test. *Journal of Pediatric Gastroenterology and Nutrition* 1998;27(4):407-410. Not sensitivity or specificity of an identified test
- Perrin Christophe, Baran Robert, Pisani Anne et al. The onychomatricoma: additional histologic criteria and immunohistochemical study. *American Journal of Dermatopathology* 2002;24(3):199-203. Not sensitivity or specificity of an identified test
- Perry A, Scheithauer B W, Nascimento A G. The immunophenotypic spectrum of meningeal hemangiopericytoma: a comparison with fibrous meningioma and solitary fibrous tumor of meninges. *American Journal of Surgical Pathology* 1997;21(11):1354-1360. Not sensitivity or specificity of an identified test
- Persic M, Milin C, Varljen J et al. Intestinal mucosa alkaline phosphatase in coeliac disease. *Period Biol* 1992;94(2):121-126. Not sensitivity or specificity of an identified test
- Persliden J, Pettersson H B L, Falth-Magnusson K. Intestinal biopsy in children with coeliac disease; A Swedish national study of radiation dose and risk. *Radiat Prot Dosim* 1995;57(1-4):459-462. Not sensitivity or specificity of an identified test
- Persliden J, Pettersson H B, Falth-Magnusson K. Radiation dose at small intestinal biopsies in children: results of a national study. *Acta Paediatrica (Oslo, Norway - 1992)* 1996;85(9):1042-1046. Not sensitivity or specificity of an identified test
- Persliden J, Pettersson H B, Falth-Magnusson K. Small intestinal biopsy in children with coeliac disease: measurement of radiation dose and analysis of risk. *Acta Paediatrica (Oslo, Norway - 1992)* 1993;82(3):296-299. Not sensitivity or specificity of an identified test
- Persson B L, Stenberg P, Holmberg L et al. Transamidating enzymes in maternal plasma and placenta in human pregnancies complicated by intrauterine growth retardation. *Journal of Developmental Physiology* 1980;2(1-2):37-46. Not sensitivity or specificity of an identified test
- Perticarari S, Not T, Cauci S et al. ELISA method for quantitative measurement of IgA and IgG specific anti-gliadin antibodies. *Journal of Pediatric Gastroenterology and Nutrition* 1992;15(3):302-309. Not sensitivity or specificity of an identified test
- Perticarari S, Presani G, Trevisan M et al. Serum IgA and IgG antibodies to alpha-gliadin: comparison between two ELISA methods. *La Ricerca in Clinica E in Laboratorio* 1987;17(4):323-329. Not sensitivity or specificity of an identified test
- Perticarari S, Prodan M, Fragonas E et al. CD69 expression on alpha-gliadin-specific T cells in coeliac disease. *European Journal of Histochemistry - Ejh* 2002;46(1):13-22. Not sensitivity or specificity of an identified test
- Pertot W J, Sindres V, Szekeres G et al. Model for quantitative immunohistochemical assessment of pulpal response to biomaterials. *Journal of Biomedical Materials Research* 1997;34(4):457-462. Not sensitivity or specificity of an identified test
- Pertschuk L P, Cook A W, Gupta J K. Jejunal immunopathology in amyotrophic lateral sclerosis and multiple sclerosis. Identification of viral antigens by immunofluorescence. *Lancet* 1977;1(8022):1119-1123. Not sensitivity or specificity of an identified test
- Pervez S, Hasan S H, Aijaz F et al. Changing patterns and re-distribution of antigen in poorly differentiated carcinomas: its implications in tumour diagnosis. *Indian Journal of Pathology & Microbiology* 1998;41(1):55-66. Not sensitivity or specificity of an identified test
- Pesce G, Pesce F, Fiorino N et al. Intraepithelial gamma/delta-positive T lymphocytes and intestinal villous atrophy. *International Archives of Allergy and Immunology* 1996;110(3):233-237. Not sensitivity or specificity of an identified test
- Petaras P, Martelossi S, Tommasini A et al. Prevalence of autoimmune disorders in relatives of patients with celiac disease. *Digestive Diseases and Sciences* 2002;47(7):1427-1431. Not sensitivity or specificity of an identified test

- Peters M S, McEvoy M T. IgA antiendomysial antibodies in dermatitis herpetiformis. *Journal of the American Academy of Dermatology* 1989;21(6):1225-1231. Not sensitivity or specificity of an identified test
- Peters T J, Doe W F, Heath J R et al. Lysosomal acid hydrolase activity in intestinal biopsies from control subjects and patients with coeliac disease. *Gut* 1973;14(5):430. Not sensitivity or specificity of an identified test
- Peters T J, Heath J R, Wansbrough-Jones M H et al. Enzyme activities and properties of lysosomes and brush borders in jejunal biopsies from control subjects and patients with coeliac disease. *Clinical Science and Molecular Medicine* 1975;48(4):259-267. Not sensitivity or specificity of an identified test
- Peters T J, Jones P E, Wells G. Analytical subcellular fractionation of jejunal biopsy specimens: enzyme activities, organelle pathology and response to gluten withdrawal in patients with coeliac disease. *Clinical Science and Molecular Medicine* 1978;55(3):285-292. Not sensitivity or specificity of an identified test
- Peters T J, Jones P E, Jenkins W J et al. Analytical subcellular fractionation of jejunal biopsy specimens: Enzyme activities, organelle pathology and response to corticosteroids in patients with non-responsive coeliac disease. *Clin Sci Mol Med* 1978;55(3):293-300. Not sensitivity or specificity of an identified test
- Petit E, Huber M, Rochat A et al. Three novel point mutations in the keratinocyte transglutaminase (TGK) gene in lamellar ichthyosis: significance for mutant transcript level, TGK immunodetection and activity. *European Journal of Human Genetics - Ejhg* 1997;5(4):218-228. Not sensitivity or specificity of an identified test
- Petronzelli F, Bonamico M, Ferrante P et al. Genetic contribution of the HLA region to the familial clustering of coeliac disease. *Annals of Human Genetics* 1997;61(Pt 4):307-317. Not sensitivity or specificity of an identified test
- Petronzelli F, Ferrante P, Triglione P et al. Oligotyping of celiac multiplex families with the 11th International Histocompatibility Workshop reagents. *Tissue Antigens* 1991;38(5):238-239. Improper control group
- Petronzelli F, Multari G, Ferrante P et al. Different dose effect of HLA-DQ alpha beta heterodimers in insulin-dependent diabetes mellitus and celiac disease susceptibility. *Human Immunology* 1993;36(3):156-162. Not sensitivity or specificity of an identified test
- Petrovsky N, Harrison L. HLA class II-associated polymorphism of interferon-gamma production implications for HLA-disease association. *Hum Immunol* 1997;53(1):12-16. Not sensitivity or specificity of an identified test
- Pettersson A, Sjoberg K, Lernmark A et al. HLA genotypes in coeliac disease and healthy individuals carrying gliadin antibodies. *European Journal of Gastroenterology & Hepatology* 1993;5(6):445-450. Improper control group
- Pettifor J M. Letter: How different are we?. *South African Medical Journal.Suid-Afrikaanse Tydskrif Vir Geneeskunde* 1974;48(16):669. Not sensitivity or specificity of an identified test
- Pettifor J M. Jejunal biopsy in the diagnosis of coeliac disease. *S Afr Med J* 1974;48(16):669. Not sensitivity or specificity of an identified test
- Pham T H, Barr G D. Coeliac disease in adults. Presentation and management. *Australian Family Physician* 1996;25(1):62-65. Not sensitivity or specificity of an identified test
- Phelan J J, Stevens F M, McNicholl B N. Chemical studies of gliadin toxicity. *Ir J Med Sci* 1975;144(9):364. Not sensitivity or specificity of an identified test
- Phillips A D, Rice S J, France N E et al. Small intestinal intraepithelial lymphocyte levels in cow's milk protein intolerance. *Gut* 1979;20(6):509-512. Not sensitivity or specificity of an identified test
- Phillips M A, Qin Q, Mehrpouyan M et al. Keratinocyte transglutaminase membrane anchorage: analysis of site-directed mutants. *Biochemistry* 1993;32(41):11057-11063. Not sensitivity or specificity of an identified test
- Phillips M A, Stewart B E, Qin Q et al. Primary structure of keratinocyte transglutaminase. *Proceedings of the National Academy of Sciences of the United States of America* 1990;87(23):9333-9337. Not sensitivity or specificity of an identified test
- Phillips S B, Kubilus J, Grassi A M et al. The pancornulins: a group of basic low molecular weight proteins in mammalian epidermis and epithelium that may function as cornified envelope precursors. *Comparative Biochemistry and Physiology.B, Comparative Biochemistry* 1990;95(4):781-788. Not sensitivity or specificity of an identified test
- Philotheou A. Epilogue: What have we learned to improve the treatment of children with diabetes mellitus and their families?. *J Pediatr Endocrinol Metab* 2001;14(Suppl 1):697-700. Not sensitivity or specificity of an identified test
- Piacentini M. Tissue transglutaminase: a candidate effector element of physiological cell death. *Current Topics in Microbiology and Immunology* 1995;200:163-175. Not sensitivity or specificity of an identified test
- Piacentini M, Autuori F. Immunohistochemical localization of tissue transglutaminase and Bcl-2 in rat uterine tissues during embryo implantation and post-partum involution. *Differentiation* 1994;57(1):51-61. Not sensitivity or specificity of an identified test

specificity of an identified test

Piacentini M, Colizzi V. Tissue transglutaminase: apoptosis versus autoimmunity. *Immunology Today* 1999;20(3):130-134. Not sensitivity or specificity of an identified test

Piacentini M, Melino G. Role of tissue transglutaminase in neuroblastoma cells undergoing apoptosis. *Progress in Clinical and Biological Research* 1994;385:123-129. Not sensitivity or specificity of an identified test

Piacentini M, Annicchiarico-Petruzzelli M, Oliverio S et al. Phenotype-specific "tissue" transglutaminase regulation in human neuroblastoma cells in response to retinoic acid: correlation with cell death by apoptosis. *International Journal of Cancer. Journal International Du Cancer* 1992;52(2):271-278. Not sensitivity or specificity of an identified test

Piacentini M, Autuori F, Dini L et al. 'Tissue' transglutaminase is specifically expressed in neonatal rat liver cells undergoing apoptosis upon epidermal growth factor-stimulation. *Cell Tissue Res* 1991;263(2):227-235. Not sensitivity or specificity of an identified test

Piacentini M, Farrace M G, Hassan C et al. 'Tissue' transglutaminase release from apoptotic cells into extracellular matrix during human liver fibrogenesis. *Journal of Pathology* 1999;189(1):92-98. Not sensitivity or specificity of an identified test

Piacentini M, Fesus L, Melino G. Multiple cell cycle access to the apoptotic death programme in human neuroblastoma cells. *Febs Letters* 1993;320(2):150-154. Not sensitivity or specificity of an identified test

Piacentini M, Fesus L, Farrace M G et al. The expression of "tissue" transglutaminase in two human cancer cell lines is related with the programmed cell death (apoptosis). *European Journal of Cell Biology* 1991;54(2):246-254. Not sensitivity or specificity of an identified test

Piacentini M, Piredda L, Starace D et al. Differential growth of N- and S-type human neuroblastoma cells xenografted into SCID mice. Correlation with apoptosis. *J Pathol* 1996;180(4):415-422. Not sensitivity or specificity of an identified test

Piacentini M, Rodolfo C, Farrace M G et al. "Tissue" transglutaminase in animal development. *International Journal of Developmental Biology* 2000;44(6 Spec No):655-662. Not sensitivity or specificity of an identified test

Piacentini Mauro, Farrace Maria, Grazia Piredda et al. Transglutaminase overexpression sensitizes neuronal cell lines to apoptosis by increasing mitochondrial membrane potential and cellular oxidative stress. *Journal of Neurochemistry* 2002;81(5):1061-1072. Not sensitivity or specificity of an identified test

Picarelli A, Di Tola M, Sabbatella L et al. 31-43 amino acid

sequence of the alpha-gliadin induces anti-endomysial antibody production during in vitro challenge. *Scandinavian Journal of Gastroenterology* 1999;34(11):1099-1102. Not sensitivity or specificity of an identified test

Picarelli A, Di Tola M, Sabbatella L et al. Immunologic evidence of no harmful effect of oats in celiac disease. *American Journal of Clinical Nutrition* 2001;74(1):137-140. Not sensitivity or specificity of an identified test

Picarelli A, Di Tola M, Sabbatella L et al. Identification of a new coeliac disease subgroup: antiendomysial and anti-transglutaminase antibodies of IgG class in the absence of selective IgA deficiency. *Journal of Internal Medicine* 2001;249(2):181-188. Improper control group

Picarelli A, Maiuri L, Frate A et al. Production of antiendomysial antibodies after in-vitro gliadin challenge of small intestine biopsy samples from patients with coeliac disease. *Lancet* 1996;348(9034):1065-1067. Not sensitivity or specificity of an identified test

Picarelli A, Maiuri L, Mazzilli M C et al. Gluten-sensitive disease with mild enteropathy. *Gastroenterology* 1996;111(3):608-616. Not sensitivity or specificity of an identified test

Picarelli A, Sabbatella L, Di Tola M et al. Forty-eight hours of biopsy culture improve the sensitivity of the in vitro gliadin challenge in the diagnosis of celiac disease. *Clinical Chemistry* 2001;47(10):1841-1843. Not sensitivity or specificity of an identified test

Picarelli A, Triglione P, Mariani P et al. Use of a threshold serum level of anti-gliadin antibodies improves diagnostic efficiency of the test in adult coeliac disease but is unreliable as a screening test. *Italian Journal of Gastroenterology* 1996;28(2):70-75. Improper control group

Picarelli Antonio, Sabbatella Luigi, Di Tola et al. Antiendomysial antibody detection in fecal supernatants: in vivo proof that small bowel mucosa is the site of antiendomysial antibody production. *American Journal of Gastroenterology* 2002;97(1):95-98. Not sensitivity or specificity of an identified test

Pierard-Franchimont C, Arrese J E, Pierard G E. Immunohistochemical aspects of the link between *Malassezia ovalis* and seborrheic dermatitis. *J Eur Acad Dermatol Venereol* 1995;4(1):14-19. Not sensitivity or specificity of an identified test

Pierard-Franchimont C, Arrese J E, Nikkels A F et al. Factor XIIIa-positive dendrocytes and proliferative activity of cutaneous cancers. *Virchows Archiv - an International Journal of Pathology* 1996;429(1):43-48. Not sensitivity or specificity of an identified test

Pierard-Franchimont C, Dosal F L, Estrada J A et al. Cutaneous hamartoma with pagetoid cells. *American*

- Journal of Dermatopathology 1991;13(2):158-161. Not sensitivity or specificity of an identified test
- Pierucci Alessandro, Fofi Claudia, Bartoli Benedetta et al. Antiendomysial antibodies in Berger's disease. American Journal of Kidney Diseases - the Official Journal of the National Kidney Foundation 2002;39(6):1176-1182. Not sensitivity or specificity of an identified test
- Pietroletti R, Bishop A E, Carlei F et al. Gut endocrine cell population in coeliac disease estimated by immunocytochemistry using a monoclonal antibody to chromogranin. Gut 1986;27(7):838-843. Not sensitivity or specificity of an identified test
- Pietroletti R, Castro M, Mariani P et al. Prostanoids in jejunal biopsy specimens of celiac children with active disease and on challenge diet. Radioimmunologic evaluation. Scandinavian Journal of Gastroenterology 1987;22(10):1181-1184. Not sensitivity or specificity of an identified test
- Pietzak M M, Thomas D W. Childhood malabsorption. Pediatr Rev 2003;24(6):195-204. Not sensitivity or specificity of an identified test
- Pignata C, Troncone R, Monaco G et al. Impaired suppressor activity in children affected by coeliac disease. Gut 1985;26(3):285-290. Not sensitivity or specificity of an identified test
- Pileri S, Poggi S, Baglioni P et al. Histology and immunohistology of bone marrow biopsy in multiple myeloma. European Journal of Haematology. Supplementum 1989;5152-59. Not sensitivity or specificity of an identified test
- Piper J M, Langer O. Is lung maturation related to fetal growth in diabetic or hypertensive pregnancies?. European Journal of Obstetrics, Gynecology, and Reproductive Biology 1993;51(1):15-19. Not sensitivity or specificity of an identified test
- Piper Justin L, Gray Gary M, Khosla Chaitan. High selectivity of human tissue transglutaminase for immunoactive gliadin peptides: implications for celiac sprue. Biochemistry 2002;41(1):386-393. Not sensitivity or specificity of an identified test
- Piredda L, Farrace M G, Lo Bello M et al. Identification of 'tissue' transglutaminase binding proteins in neural cells committed to apoptosis. Faseb Journal - Official Publication of the Federation of American Societies for Experimental Biology 1999;13(2):355-364. Not sensitivity or specificity of an identified test
- Pirmohamed M, Lin K, Chadwick D et al. TNFalpha promoter region gene polymorphisms in carbamazepine-hypersensitive patients. Neurology 2001;56(7):890-896. Not sensitivity or specificity of an identified test
- Pisegma J R. A difficult diagnosis: When is irritable bowel syndrome really celiac disease?. Med Crossfire 2002;4(10):46-47. Not sensitivity or specificity of an identified test
- Pittman F E, Pittman J C. A light and electron microscopic study of sigmoid colonic mucosa in adult celiac disease. Scandinavian Journal of Gastroenterology 1966;1(1):21-27. Not sensitivity or specificity of an identified test
- Pittschieler K, Ladinser B. Coeliac disease: screened by a new strategy. Acta paediatrica (Oslo, Norway : 1992).Supplement. 1996;41242-45. Improper control group
- Pittschieler K, Gentili L, Niederhofer H. Onset of coeliac disease: A prospective longitudinal study. Acta Paediatr Int J Paediatr 2003;92(10):1149-1152. Not sensitivity or specificity of an identified test
- Pittschieler K, Ladinser B, Petell J K. Reactivity of gliadin and lectins with celiac intestinal mucosa. Pediatric Research 1994;36(5):635-641. Not sensitivity or specificity of an identified test
- Pittschieler K, Reissigl H, Mengarda G. Celiac disease in two different population groups of South Tirol. Journal of Pediatric Gastroenterology and Nutrition 1988;7(3):400-402. Not sensitivity or specificity of an identified test
- Placido R, Mancino G, Amendola A et al. Apoptosis of human monocytes/macrophages in Mycobacterium tuberculosis infection. Journal of Pathology 1997;181(1):31-38. Not sensitivity or specificity of an identified test
- Plenz A, Fritz P, Konig G et al. Immunohistochemical detection of factor XIIIa and factor XIIIb in synovial membranes of patients with rheumatoid arthritis or osteoarthritis. Rheumatology International 1996;16(1):29-36. Not sensitivity or specificity of an identified test
- Ploski R, Ascher H, Sollid L M. HLA genotypes and the increased incidence of coeliac disease in Sweden. Scandinavian Journal of Gastroenterology 1996;31(11):1092-1097. Improper control group
- Ploski R, Ek J, Thorsby E et al. On the HLA-DQ(alpha 1\*0501, beta 1\*0201)-associated susceptibility in celiac disease: a possible gene dosage effect of DQB1\*0201. Tissue Antigens 1993;41(4):173-177. Improper control group
- Pocecco M, Ventura A. Coeliac disease and insulin-dependent diabetes mellitus: a causal association?. Acta Paediatrica (Oslo, Norway - 1992) 1995;84(12):1432-1433. Not sensitivity or specificity of an identified test
- Pociot F, McDermott M F. Genetics of type 1 diabetes mellitus. Genes and Immunity 2002;3(5):235-249. Not sensitivity or specificity of an identified test
- Poddar S, Davies J A. Induction of tissue transglutaminase by structural analogs of trans retinoic acid. Fed Proc

- 1985;44(3):No 2110 Not sensitivity or specificity of an identified test
- Poddar S, Hong W K, Thacher S M et al. Retinoic acid suppression of squamous differentiation in human head-and-neck squamous carcinoma cells. *International Journal of Cancer. Journal International Du Cancer* 1991;48(2):239-247. Not sensitivity or specificity of an identified test
- Poddar U. Celiac disease: clinical features and diagnostic criteria. *Indian Journal of Pediatrics* 1999;66(1 Suppl):S21-S25. Not sensitivity or specificity of an identified test
- Podolsky D K, LaMont J T. So, where are all the celiacs?. *Gastroenterology* 1999;116(2):237 Not sensitivity or specificity of an identified test
- Poelman J R, Netelenbos J C, Van Der et al. Diabetes mellitus, diarrhoea and malabsorption. *Neth J Med* 1975;18(6):297-306. Not sensitivity or specificity of an identified test
- Polak J M, Pearse A G E, Van Noorden S. Secretin cells in coeliac disease. *Gut* 1973;14(11):870-874. Not sensitivity or specificity of an identified test
- Polakowska R R, Eddy R L, Shows T B et al. Epidermal type I transglutaminase (TGM1) is assigned to human chromosome 14. *Cytogenetics and Cell Genetics* 1991;56(2):105-107. Not sensitivity or specificity of an identified test
- Polakowska R R, Graf B A, Falciano V et al. Transcription regulatory elements of the first intron control human transglutaminase type I gene expression in epidermal keratinocytes. *Journal of Cellular Biochemistry* 1999;73(3):355-369. Not sensitivity or specificity of an identified test
- Polanco I. Clinical relevance of villous atrophy. *Pediatric Allergy and Immunology - Official Publication of the European Society of Pediatric Allergy and Immunology* 2001;12(Suppl 14):47-50. Not sensitivity or specificity of an identified test
- Polanco I. Clinical relevance of villus atrophy. *Pediatrics* 2001;21(10):23-26. Not sensitivity or specificity of an identified test
- Polanco I, Mearin M L, Larrauri J et al. Effect of gluten supplementation in healthy siblings of children with celiac disease. *Gastroenterology* 1987;92(3):678-681. Not sensitivity or specificity of an identified test
- Poley J R. The scanning electron microscope: how valuable in the evaluation of small bowel mucosal pathology in chronic childhood diarrhea?. *Scanning Microscopy* 1991;5(4):1037-1062. Not sensitivity or specificity of an identified test
- Poley J R, Bhatia M, Welsh J D. Disaccharidase deficiency in infants with cow's milk protein intolerance. Response to treatment. *Digestion* 1978;17(2):97-107. Not sensitivity or specificity of an identified test
- Poljac caron, Gajinov Z, Belic caron et al. MHC class II antigens in alopecia areata. *Acta Dermatovenerol Alp Pannonica Adriat* 2002;11(2):55-58. Not sensitivity or specificity of an identified test
- Pollack S. Chronic fatigue syndrome and immune dysfunction: Cause or effect?. *Isr Med Assoc J* 2002;4(11 SUPPL.):883-885. Not sensitivity or specificity of an identified test
- Pollock D J. The liver in coeliac disease. *Histopathology* 1977;1(6):421-430. Not sensitivity or specificity of an identified test
- Pollock D J, Nagle R E, Jeejeebhoy K N et al. The effect on jejunal mucosa of withdrawing and adding dietary gluten in cases of idiopathic steatorrhoea. *Gut* 1970;11(7):567-575. Not sensitivity or specificity of an identified test
- Polvi A, Arranz E, Fernandez-Arquero M et al. HLA-DQ2-negative celiac disease in Finland and Spain. *Human Immunology* 1998;59(3):169-175. Not sensitivity or specificity of an identified test
- Polvi A, Eland C, Koskimies S et al. HLA DQ and DP in Finnish families with celiac disease. *European Journal of Immunogenetics - Official Journal of the British Society for Histocompatibility and Immunogenetics* 1996;23(3):221-234. Improper control group
- Polvi A, Garden O A, Elwood C M et al. Canine major histocompatibility complex genes DQA and DQB in Irish setter dogs. *Tissue Antigens* 1997;49(3 Pt 1):236-243. Not sensitivity or specificity of an identified test
- Polvi A, Maki M, Partanen J. Celiac patients predominantly inherit HLA-DPB1\*0101 positive haplotype from HLA-DQ2 homozygous parent. *Human Immunology* 1997;53(2):156-158. Not sensitivity or specificity of an identified test
- Polvi A, Maki M, Collin P et al. TNF microsatellite alleles a2 and b3 are not primarily associated with celiac disease in the Finnish population. *Tissue Antigens* 1998;51(5):553-555. Not sensitivity or specificity of an identified test
- Poon E, Nixon R. Cutaneous spectrum of coeliac disease. *Australas J Dermatol* 2001;42(2):136-138. Not sensitivity or specificity of an identified test
- Popat S, Hearle N, Bevan S et al. Mutational analysis of CD28 in coeliac disease. *Scandinavian Journal of Gastroenterology* 2002;37(5):536-539. Not sensitivity or specificity of an identified test
- Popat S, Hearle N, Hogberg L et al. Variation in the CTLA4/CD28 gene region confers an increased risk of coeliac disease. *Annals of Human Genetics* 2002;66(Pt 2):125-137. Not sensitivity or specificity of an identified test

test

Popat S, Hearle N, Wixey J et al. Analysis of the CTLA4 gene in Swedish coeliac disease patients. *Scandinavian Journal of Gastroenterology* 2002;37(1):28-31. Improper control group

Popat S, Hogberg L, McGuire S et al. Germline mutations in TGM2 do not contribute to coeliac disease susceptibility in the Swedish population. *European Journal of Gastroenterology & Hepatology* 2001;13(12):1477-1479. Not sensitivity or specificity of an identified test

Potolicchio I, Santambrogio L, Strominger J L. Molecular interaction and enzymatic activity of macrophage migration inhibitory factor with immunorelevant peptides. *J Biol Chem* 2003;278(33):30889-30895. Not sensitivity or specificity of an identified test

Powis S H, Rosenberg W M, Hall M et al. TAP1 and TAP2 polymorphism in coeliac disease. *Immunogenetics* 1993;38(5):345-350. Not sensitivity or specificity of an identified test

Pozler O, Parizek J, Chylkova V et al. Immunological aspects of diagnosis of celiac sprue in children. *Sbornik Vedeckych Praci Lekarske Fakulty Karlovy University V Hradci Kralove* 1989;32(2):169-233. Not sensitivity or specificity of an identified test

Prasad S, Thomas P, Nicholas D S et al. Adult endomysial antibody-negative coeliac disease and cigarette smoking. *European Journal of Gastroenterology & Hepatology* 2001;13(6):667-671. Not sensitivity or specificity of an identified test

Pratesi R, Gandolfi L, Friedman H et al. Serum IgA antibodies from patients with coeliac disease react strongly with human brain blood-vessel structures. *Scandinavian Journal of Gastroenterology* 1998;33(8):817-821. Not sensitivity or specificity of an identified test

Pratesi R, Gandolfi L, Garcia S G et al. Prevalence of coeliac disease: Unexplained age-related variation in the same population. *Scandinavian Journal of Gastroenterology* 2003;38(7):747-750. Not sensitivity or specificity of an identified test

Pratesi Riccardo, Gandolfi Lenora, Martins Rita C et al. Is the prevalence of celiac disease increased among epileptic patients?. *Arquivos De Neuro-Psiquiatria* 2003;61(2b):330-334. Not sensitivity or specificity of an identified test

Prati D, Bardella M T, Peracchi M et al. High frequency of anti-endomysial reactivity in candidates to heart transplant. *Digestive and Liver Disease - Official Journal of the Italian Society of Gastroenterology and the Italian Association for the Study of the Liver* 2002;34(1):39-43. Not sensitivity or specificity of an identified test

Presani G, Perticarari S, Mangiarotti M A. Flow cytometric detection of anti-gliadin antibodies. *Journal of*

*Immunological Methods* 1989;119(2):197-202. Serology <1990

Presland R B, Dale B A. Epithelial structural proteins of the skin and oral cavity: function in health and disease. *Critical Reviews in Oral Biology and Medicine - an Official Publication of the American Association of Oral Biologists* 2000;11(4):383-408. Not sensitivity or specificity of an identified test

Presotto F, Betterle C. Insulin-dependent diabetes mellitus: A constellation of autoimmune diseases. *J Pediatr Endocrinol Metab* 1997;10(5):455-469. Not sensitivity or specificity of an identified test

Price H L, Gazzard B G, Dawson A M. Steatorrhea in the elderly. *Br Med J* 1977;1(6076):1582-1584. Not sensitivity or specificity of an identified test

Price P, Witt C, Allcock R et al. The genetic basis for the association of the 8.1 ancestral haplotype (A1, B8, DR3) with multiple immunopathological diseases. *Immunol Rev* 1999;167(-):257-274. Not sensitivity or specificity of an identified test

Prieto V G, Reed J A, Shea C R. Immunohistochemistry of dermatofibromas and benign fibrous histiocytomas. *Journal of Cutaneous Pathology* 1995;22(4):336-341. Not sensitivity or specificity of an identified test

Priglinger Siegfried G, May Christian A, Neubauer Aljoscha S et al. Tissue transglutaminase as a modifying enzyme of the extracellular matrix in PVR membranes. *Investigative Ophthalmology & Visual Science* 2003;44(1):355-364. Not sensitivity or specificity of an identified test

Primignani M, Agape D, Ronchi G et al. Prevalence of duodenal and jejunal lesions in dermatitis herpetiformis. *La Ricerca in Clinica E in Laboratorio* 1987;17(3):243-249. Not sensitivity or specificity of an identified test

Prince H E, Norman G L, Binder W L. Immunoglobulin A (IgA) deficiency and alternative celiac disease-associated antibodies in sera submitted to a reference laboratory for endomysial IgA testing. *Clinical and Diagnostic Laboratory Immunology* 2000;7(2):192-196. Improper control group

Prisco A, Troncone R, Mazzarella G et al. Identical T-cell receptor beta chain rearrangements are present in T cells infiltrating the jejunal mucosa of untreated celiac patients. *Hum Immunol* 1997;55(1):22-33. Not sensitivity or specificity of an identified test

Probst-Cousin S, Poremba C, Rickert C H et al. Factor XIIIa expression in granulomatous lesions due to sarcoidosis or mycobacterial infection. *Pathology, Research and Practice* 1997;193(11-12):741-745. Not sensitivity or specificity of an identified test

Provost T T, Talal N, Bias W et al. Ro(SS-A) positive Sjogren's/lupus erythematosus (SC/LE) overlap patients are

- associated with the HLA-DR3 and/or DRw6 phenotypes. *J Invest Dermatol* 1988;91(4):369-371. Not sensitivity or specificity of an identified test
- Pruessner H T. Detecting celiac disease in your patients. *American Family Physician* 1998;57(5):1023-34, 1039. Not sensitivity or specificity of an identified test
- Przemioslo R T, Kontakou M, Nobili V et al. Raised pro-inflammatory cytokines interleukin 6 and tumour necrosis factor alpha in coeliac disease mucosa detected by immunohistochemistry. *Gut* 1994;35(10):1398-1403. Not sensitivity or specificity of an identified test
- Przemioslo R T, Lundin K E, Sollid L M et al. Histological changes in small bowel mucosa induced by gliadin sensitive T lymphocytes can be blocked by anti-interferon gamma antibody. *Gut* 1995;36(6):874-879. Not sensitivity or specificity of an identified test
- Przemioslo R, Wright N A, Elia G et al. Analysis of crypt cell proliferation in coeliac disease using MI-B1 antibody shows an increase in growth fraction. *Gut* 1995;36(1):22-27. Not sensitivity or specificity of an identified test
- Pueschel S M, Romano C, Failla P et al. A prevalence study of celiac disease in persons with Down syndrome residing in the United States of America. *Acta Paediatrica (Oslo, Norway - 1992)* 1999;88(9):953-956. Not sensitivity or specificity of an identified test
- Pynnonen P, Isometsa E, Aalberg V et al. Is coeliac disease prevalent among adolescent psychiatric patients?. *Acta Paediatrica (Oslo, Norway - 1992)* 2002;91(6):657-659. Not sensitivity or specificity of an identified test
- Qari F A. Clinical presentation of adult celiac disease in Western Saudi Arabia. *Saudi Med J* 2002;23(12):1514-1517. Not sensitivity or specificity of an identified test
- Qiu L, Escalante C R, Aggarwal A K et al. Monomeric midkine induces tumor cell proliferation in the absence of cell-surface proteoglycan binding. *Biochemistry* 2000;39(20):5977-5987. Not sensitivity or specificity of an identified test
- Quarsten H, McAdam S N, Jensen T et al. Staining of celiac disease-relevant T cells by peptide-DQ2 multimers. *Journal of Immunology (Baltimore, Md. - 1950)* 2001;167(9):4861-4868. Not sensitivity or specificity of an identified test
- Quarsten H, Molberg O, Fugger L et al. HLA binding and T cell recognition of a tissue transglutaminase-modified gliadin epitope. *European Journal of Immunology* 1999;29(8):2506-2514. Not sensitivity or specificity of an identified test
- Quarsten H, Paulsen G, Johansen B H et al. The P9 pocket of HLA-DQ2 (non-Aspbeta57) has no particular preference for negatively charged anchor residues found in other type 1 diabetes-predisposing non-Aspbeta57 MHC class II molecules. *International Immunology* 1998;10(8):1229-1236. Not sensitivity or specificity of an identified test
- Quisel Anna, Gill James M, Westerberg Dyanne. Guideline for diagnosis of celiac disease. *Delaware Medical Journal* 2002;74(5):229-241. Not sensitivity or specificity of an identified test
- Rabsztyn A, Green P H, Berti I et al. Macroamylasemia in patients with celiac disease. *American Journal of Gastroenterology* 2001;96(4):1096-1100. Not sensitivity or specificity of an identified test
- Radek J T, Jeong J M, Murthy S N et al. Affinity of human erythrocyte transglutaminase for a 42-kDa gelatin-binding fragment of human plasma fibronectin. *Proceedings of the National Academy of Sciences of the United States of America* 1993;90(8):3152-3156. Not sensitivity or specificity of an identified test
- Radisich T, Riechers R, Hertl M. The humanized SCID mouse model to study HLA class II-linked autoimmunity to desmoglein 3 in pemphigus vulgaris. *Br J Dermatol* 2002;146(2):189-193. Not sensitivity or specificity of an identified test
- Raghunath M, Cankay R, Kubitscheck U et al. Transglutaminase activity in the eye: cross-linking in epithelia and connective tissue structures. *Investigative Ophthalmology & Visual Science* 1999;40(12):2780-2787. Not sensitivity or specificity of an identified test
- Raghunath M, Hennies H C, Velten F et al. A novel in situ method for the detection of deficient transglutaminase activity in the skin. *Archives of Dermatological Research* 1998;290(11):621-627. Not sensitivity or specificity of an identified test
- Raghunath M, Hopfner B, Aeschlimann D et al. Cross-linking of the dermo-epidermal junction of skin regenerating from keratinocyte autografts. Anchoring fibrils are a target for tissue transglutaminase. *Journal of Clinical Investigation* 1996;98(5):1174-1184. Not sensitivity or specificity of an identified test
- Rajagopalan G, Kudva Y C, Chen L et al. Autoimmune diabetes in HLA-DR3/DQ8 transgenic mice expressing the co-stimulatory molecule B7-1 in the beta cells of islets of Langerhans. *Int Immunol* 2003;15(9):1035-1044. Not sensitivity or specificity of an identified test
- Rajagopalan G, Kudva Y C, Flavell R A et al. Accelerated diabetes in rat insulin promoter-tumor necrosis factor-alpha transgenic nonobese diabetic mice lacking major histocompatibility class II molecules. *Diabetes* 2003;52(2):342-347. Not sensitivity or specificity of an identified test
- Raju R, Marietta E, Vinasco J et al. Cryptic determinants and promiscuous sequences on human acetylcholine receptor: HLA-dependent dichotomy in T-cell function. *Hum Immunol* 2002;63(4):237-247. Not sensitivity or specificity of an identified test

specificity of an identified test

Ralph D J, Schwartz G, Moore W et al. The genetic and bacteriological aspects of Peyronie's disease. *J Urol* 1997;157(1):291-294. Not sensitivity or specificity of an identified test

Ramos-Arroyo M A, Feijoo E, Sanchez-Valverde F et al. Heat-shock protein 70-1 and HLA class II gene polymorphisms associated with celiac disease susceptibility in Navarra (Spain). *Human Immunology* 2001;62(8):821-825. Not sensitivity or specificity of an identified test

Ransford Rupert A J, Hayes Mark, Palmer Martin et al. A controlled, prospective screening study of celiac disease presenting as iron deficiency anemia. *Journal of Clinical Gastroenterology* 2002;35(3):228-233. Not sensitivity or specificity of an identified test

Rantala I, Maki M, Laasonen A et al. Periodate-lysine-paraformaldehyde as fixative for the study of duodenal mucosa. Morphologic and immunohistochemical results at light and electron microscopic levels. *Acta Pathologica, Microbiologica, Et Immunologica Scandinavica*. Section a, Pathology 1985;93(4):165-173. Not sensitivity or specificity of an identified test

Rapoport M J, Bistrizter T, Vardi O et al. Increased prevalence of diabetes-related autoantibodies in celiac disease. *Journal of Pediatric Gastroenterology and Nutrition* 1996;23(5):524-527. Not sensitivity or specificity of an identified test

Ratanachaiyavong S, McGregor A M. HLA-DPB1 polymorphisms on the MHC-extended haplotypes of families of patients with Graves' disease: Two distinct HLA-DR17 haplotypes. *Eur J Clin Invest* 1994;24(5):309-315. Not sensitivity or specificity of an identified test

Rautonen J, Rautonen N, Savilahti E. Antibodies to gliadin in children with coeliac disease. *Acta Paediatrica Scandinavica* 1991;80(12):1200-1206. Improper control group

Rautonen N, Rautonen J, Savilahti E. Influence of the G2m(n) allotype and age on IgG subclass distribution in antibodies to dietary proteins in children with coeliac disease. *Clinical and Experimental Immunology* 1990;81(2):306-310. Not sensitivity or specificity of an identified test

Ravaglia Giovanni, Forti Paola, Maioli Fabiola et al. Increased prevalence of coeliac disease in autoimmune thyroiditis is restricted to aged patients. *Experimental Gerontology* 2003;38(5):589-595. Not sensitivity or specificity of an identified test

Ravelli A M, Tobanelli P, Minelli L et al. Endoscopic features of celiac disease in children. *Gastrointestinal Endoscopy* 2001;54(6):736-742. Not sensitivity or specificity of an identified test

Rawashdeh M O, Abu-Farsakh N, Al Jaber T M. Paediatric upper gastro-intestinal endoscopy in developing countries. *Ann Trop Paediatr* 1996;16(4):341-346. Not sensitivity or specificity of an identified test

Rawlings J M, Lucas M L, Russell R I. Measurement of jejunal surface pH in situ by plastic pH electrode in patients with coeliac disease. *Scandinavian Journal of Gastroenterology* 1987;22(3):377-384. Not sensitivity or specificity of an identified test

Read M, O'Halloran E T, O'Sullivan C. Coeliac disease in adolescents/young adults: Difficulties in monitoring. *Br J Biomed Sci* 2000;57(3):217-221. Not sensitivity or specificity of an identified test

Redondo M J, Eisenbarth G S. Genetic control of autoimmunity in Type I diabetes and associated disorders. *Diabetologia* 2002;45(5):605-622. Not sensitivity or specificity of an identified test

Redondo M J, Rewers M, Yu L et al. Genetic determination of islet cell autoimmunity in monozygotic twin, dizygotic twin, and non-twin siblings of patients with type 1 diabetes: prospective twin study. *Bmj (Clinical Research Ed.)* 1999;318(7185):698-702. Not sensitivity or specificity of an identified test

Redondo M J, Yu L, Hawa M et al. Heterogeneity of type I diabetes: analysis of monozygotic twins in Great Britain and the United States. *Diabetologia* 2001;44(3):354-362. Not sensitivity or specificity of an identified test

Reen D J, O'Regan D. HLA antigen frequencies in an Irish population. *Tissue Antigens* 1980;15(4):369-372. Not sensitivity or specificity of an identified test

Reeves G E, Burns C, Hall S T et al. The measurement of IgA and IgG transglutaminase antibodies in celiac disease: a comparison with current diagnostic methods. *Pathology* 2000;32(3):181-185. Improper control group

Regan P T, DiMagno E P. Exocrine pancreatic insufficiency in celiac sprue: A cause of treatment failure. *Gastroenterology* 1980;78(3):484-487. Not sensitivity or specificity of an identified test

Regezi J A, Nickoloff B J, Headington J T. Oral submucosal dendrocytes: factor XIIIa+ and CD34+ dendritic cell populations in normal tissue and fibrovascular lesions. *Journal of Cutaneous Pathology* 1992;19(5):398-406. Not sensitivity or specificity of an identified test

Regezi J A, Zarbo R J, Daniels T E et al. Oral traumatic granuloma. Characterization of the cellular infiltrate. *Oral Surgery, Oral Medicine, and Oral Pathology* 1993;75(6):723-727. Not sensitivity or specificity of an identified test

Regnier M, Desbas C, Bailly C et al. Differentiation of normal and tumoral human keratinocytes cultured on

- dermis: reconstruction of either normal or tumoral architecture. *In Vitro Cellular & Developmental Biology - Journal of the Tissue Culture Association* 1988;24(7):625-632. Not sensitivity or specificity of an identified test
- Reibel J, Clausen H, Dale B A et al. Immunohistochemical analysis of stratum corneum components in oral squamous epithelia. *Differentiation* 1989;Research in Biological Diversity; 41(3):237-244. Not sensitivity or specificity of an identified test
- Reichrath J, Rafi L, Muller S M et al. Immunohistochemical analysis of 1,25-dihydroxyvitamin D3 receptor in cervical carcinoma. *Histochemical Journal* 1998;30(8):561-567. Not sensitivity or specificity of an identified test
- Reichstetter S, Kwok W W, Nepom G T. Impaired binding of a DQ2 and DQ8-binding HSV VP16 peptide to a DQA1\*0501/DQB1\*0302 trans class II heterodimer. *Tissue Antigens* 1999;53(1):101-105. Not sensitivity or specificity of an identified test
- Reichstetter S, Kwok W W, Kochik S et al. MHC-peptide ligand interactions establish a functional threshold for antigen-specific T cell recognition. *Hum Immunol* 1999;60(7):608-618. Not sensitivity or specificity of an identified test
- Reifen R, Buskila D, Maislos M et al. Serum prolactin in coeliac disease: A marker for disease activity. *Arch Dis Child* 1997;77(2):155-157. Not sensitivity or specificity of an identified test
- Reifen R, Reif S, Buskila D et al. Transthyretin: a marker for celiac disease activity. *Journal of Medicine* 1998;29(1-2):30-36. Not sensitivity or specificity of an identified test
- Reijonen H, Ilonen J, Knip M et al. Insulin-dependent diabetes mellitus associated with dermatitis herpetiformis: evidence for heterogeneity of HLA-associated genes. *Tissue Antigens* 1991;37(2):94-96. Not sensitivity or specificity of an identified test
- Reims A, Redfors S, Ascher H et al. Electrogenic ion transport in duodenal biopsies from children with coeliac disease. *Scandinavian Journal of Gastroenterology* 2002;37(1):43-50. Not sensitivity or specificity of an identified test
- Reina J, Ballesteros F, Gasco J et al. Usefulness of pp65 antigenemia and viremia in the follow-up of renal transplant recipients with cytomegalovirus disease treated with ganciclovir. *Diagnostic Microbiology and Infectious Disease* 2000;37(2):83-86. Not sensitivity or specificity of an identified test
- Rensch M J, Merenich J A, Lieberman M et al. Gluten-sensitive enteropathy in patients with insulin-dependent diabetes mellitus. *Annals of Internal Medicine* 1996;124(6):564-567. Not sensitivity or specificity of an identified test
- Rensch M J, Szykowski R, Shaffer R T et al. The prevalence of celiac disease autoantibodies in patients with systemic lupus erythematosus. *American Journal of Gastroenterology* 2001;96(4):1113-1115. Not sensitivity or specificity of an identified test
- Rettenbacher T, Hollerweger A, Macheiner P et al. Adult celiac disease: US signs. *Radiology* 1999;211(2):389-394. Not sensitivity or specificity of an identified test
- Reunala T. Dermatitis herpetiformis: coeliac disease of the skin. *Annals of Medicine* 1998;30(5):416-418. Not sensitivity or specificity of an identified test
- Reunala T. Incidence of familial dermatitis herpetiformis. *Br J Dermatol* 1996;134(3):394-398. Not sensitivity or specificity of an identified test
- Reunala T, Chorzelski T P, Viander M et al. IgA anti-endomysial antibodies in dermatitis herpetiformis: correlation with jejunal morphology, gluten-free diet and anti-gliadin antibodies. *British Journal of Dermatology* 1987;117(2):185-191. Not sensitivity or specificity of an identified test
- Reunala T, Collin P, Holm K et al. Tolerance to oats in dermatitis herpetiformis. *Gut* 1998;43(4):490-493. Not sensitivity or specificity of an identified test
- Reunala T, Helin H, Pasternack A et al. Renal involvement and circulating immune complexes in dermatitis herpetiformis. *Journal of the American Academy of Dermatology* 1983;9(2):219-223. Not sensitivity or specificity of an identified test
- Reunala T, Salmi J, Karvonen J. Dermatitis herpetiformis and celiac disease associated with Addison's disease. *Archives of Dermatology* 1987;123(7):930-932. Not sensitivity or specificity of an identified test
- Reunala T, Salo O P, Tiilikainen A et al. Histocompatibility antigens and dermatitis herpetiformis with special reference to jejunal abnormalities and acetylator phenotype. *Br J Dermatol* 1976;94(2):139-143. Not sensitivity or specificity of an identified test
- Reunala T, Salo O P, Tiilikainen A et al. Family studies in dermatitis herpetiformis. *Annals of Clinical Research* 1976;8(4):254-261. Not sensitivity or specificity of an identified test
- Reynolds N J, Todd C, Angus B. Overexpression of protein kinase C-alpha and -beta isozymes by stromal dendritic cells in basal and squamous cell carcinoma. *British Journal of Dermatology* 1997;136(5):666-673. Not sensitivity or specificity of an identified test
- Rhyner C, Weichel M, Hubner P et al. Phage display of human antibodies from a patient suffering from coeliac disease and selection of isotype-specific scFv against gliadin. *Immunology* 2003;110(2):269-274. Not sensitivity

or specificity of an identified test

Ribes C, Pena A S, Pereda A et al. IGA gliadin antibodies, a useful screening test for coeliac disease in family members of children with coeliac disease. *J Clin Nutr Gastroenterol* 1991;6(4):196-202. Not sensitivity or specificity of an identified test

Ribes Koninckx C, Pereda Perez R A, Ferrer Calvete J et al. The value of the measurement of IgA antigliadin antibodies in a pediatric unit in Spain. A prospective study. *J Clin Nutr Gastroenterol* 1986;1(1):26-29. Not sensitivity or specificity of an identified test

Ribes-Koninckx C, Alfonso P, Ortigosa L et al. A beta-turn rich oats peptide as an antigen in an ELISA method for the screening of coeliac disease in a paediatric population. *European Journal of Clinical Investigation* 2000;30(8):702-708. Improper control group

Riccabona M, Rossipal E. Sonographic findings in celiac disease. *Journal of Pediatric Gastroenterology and Nutrition* 1993;17(2):198-200. Not sensitivity or specificity of an identified test

Rice R H, Green H. Presence in human epidermal cells of a soluble protein precursor of the cross-linked envelope: activation of the cross-linking by calcium ions. *Cell* 1979;18(3):681-694. Not sensitivity or specificity of an identified test

Rice R H, Mehrpouyan M, O'Callahan W et al. Keratinocyte transglutaminase: differentiation marker and member of an extended family. *Epithelial Cell Biology* 1992;1(3):128-137. Not sensitivity or specificity of an identified test

Richiardi P, Borelli I, Malavasi F et al. HLA antigens in juvenile dermatitis herpetiformis. *Acta Dermato-Venereologica* 1981;61(3):241-244. Not sensitivity or specificity of an identified test

Richter K H, Schnapke R, Clauss M et al. Epidermal Ginf 1-chalone and transforming growth factor-beta are two different endogenous inhibitors of epidermal cell proliferation. *J Cell Physiol* 1990;142(3):496-504. Not sensitivity or specificity of an identified test

Riecken E O, Martini G A. The classification of abnormal small intestinal mucosal appearances. Morphology, function and diagnostic significance. *German Medicine* 1973;3(3-4):120-127. Not sensitivity or specificity of an identified test

Riecken E O, Sahlfeld M, Lorenz-Meyer H. [Quantification of the three-dimensional structure of jejunal mucosa in healthy subjects and patients with coeliac disease (author's transl)]: Quantitative Untersuchungen zur dreidimensionalen Struktur der Dunndarmschleimhaut bei Besunden und Patienten mit einheimischer Sprue. *Deutsche Medizinische Wochenschrift* 1976;101(2):51-53. Not sensitivity or specificity of an identified test

Riedy M C, Muirhead K A, Jensen C P et al. Use of a photolabeling technique to identify nonviable cells in fixed homologous or heterologous cell populations. *Cytometry - the Journal of the Society for Analytical Cytology* 1991;12(2):133-139. Not sensitivity or specificity of an identified test

Riestra S, Fernandez E, Rodrigo L et al. Prevalence of Coeliac disease in the general population of northern Spain. Strategies of serologic screening. *Scandinavian Journal of Gastroenterology* 2000;35(4):398-402. Not sensitivity or specificity of an identified test

Rihs H-P, Chen Z, Cremer R et al. HLA class II antigens DR4 and DQ8 are associated with allergy to hevein, a major allergen of Hevea latex. *Tissue Antigens* 1997;49(1):92-95. Not sensitivity or specificity of an identified test

Rihs H-P, Chen Z, Rueff F et al. HLA-DQ8 and the HLA-DQ8-DR4 haplotype are positively associated with the hevein-specific IgE immune response in health care workers with latex allergy. *J Allergy Clin Immunol* 2002;110(3):507-514. Not sensitivity or specificity of an identified test

Rihs H-P, Cremer R, Chen Z et al. Molecular analysis of DRB and DQB 1 alleles in German spina bifida patients with and without IgE responsiveness to the latex major allergen Hev b 1. *Clin Exp Allergy* 1998;28(2):175-180. Not sensitivity or specificity of an identified test

Rinas U, Risse B, Jaenicke R et al. Characterization of recombinant factor XIIIa produced in *Saccharomyces cerevisiae*. *Bio/Technology (Nature Publishing Company)* 1990;8(6):543-546. Not sensitivity or specificity of an identified test

Riordan S M, McIver C J, Wakefield D et al. Luminal antigliadin antibodies in small intestinal bacterial overgrowth. *American Journal of Gastroenterology* 1997;92(8):1335-1338. Not sensitivity or specificity of an identified test

Risch N. Assessing the role of HLA-linked and unlinked determinants of disease. *American Journal of Human Genetics* 1987;40(1):1-14. Not sensitivity or specificity of an identified test

Rischmueller M, Lester S, Chen Z et al. HLA class II phenotype controls diversification of the autoantibody response in primary Sjogren's syndrome (pSS). *Clinical and Experimental Immunology* 1998;111(2):365-371. Not sensitivity or specificity of an identified test

Risdon R A, Keeling J W. Quantitation of the histological changes found in small intestinal biopsy specimens from children with suspected coeliac disease. *Gut* 1974;15(1):9-18. Unable to extract data

Risdon R A, Meinhard E A, Wadbrook D G et al. Small

- intestinal biopsy in childhood coeliac disease. *Postgraduate Medical Journal* 1975;51(600):716-721. Not sensitivity or specificity of an identified test
- Ritter S J, Davies P J. Identification of a transforming growth factor-beta1/bone morphogenetic protein 4 (TGF-beta1/BMP4) response element within the mouse tissue transglutaminase gene promoter. *Journal of Biological Chemistry* 1998;273(21):12798-12806. Not sensitivity or specificity of an identified test
- Rittmaster R S, Norman R W, Thomas L N et al. Evidence for atrophy and apoptosis in the prostates of men given finasteride. *Journal of Clinical Endocrinology and Metabolism* 1996;81(2):814-819. Not sensitivity or specificity of an identified test
- Rittmaster R S, Thomas L N, Wright A S et al. The utility of tissue transglutaminase as a marker of apoptosis during treatment and progression of prostate cancer. *Journal of Urology* 1999;162(6):2165-2169. Not sensitivity or specificity of an identified test
- Rittner C, DeMarchi M, Mollenhauer E et al. Coeliac disease and C4A\*QO: an association secondary to HLA-DR3. *Tissue Antigens* 1984;23(2):130-134. Not sensitivity or specificity of an identified test
- Robards M F. Changes in plasma nephelometry after oral fat loading in children with normal and abnormal small intestinal morphology. *Archives of Disease in Childhood* 1975;50(8):631-636. Not sensitivity or specificity of an identified test
- Robert M E, Ament M E, Weinstein W M. The histologic spectrum and clinical outcome of refractory and unclassified sprue. *American Journal of Surgical Pathology* 2000;24(5):676-687. Unable to extract data
- Roberts C, Jack F, Angus B et al. Immunohistochemical detection of CD30 remains negative in nodular lymphocyte-predominant Hodgkin's disease using enhanced antigen retrieval. *Histopathology* 2002;40(2):166-170. Not sensitivity or specificity of an identified test
- Roberts I M. Workup of the patient with malabsorption. *Postgraduate Medicine* 1987;81(7):32-3, 37. Not sensitivity or specificity of an identified test
- Roberts R K, Campbell C B, Bryant S J et al. Xylose-1-sup 1sup 4C absorption test: the use of urine, serum and breath analysis, and comparison with a colorimetric assay. *Australian and New Zealand Journal of Medicine* 1976;6(6):532-536. Not sensitivity or specificity of an identified test
- Roberts S H, Heffernan C, Douglas A P. The sialic acid and carbohydrate content and the synthesis of glycoprotein from radioactive precursors by tissues of the normal and diseases upper intestinal tract. *Clinica Chimica Acta* 1975;International Journal of Clinical Chemistry; 63(2):121-128. Not sensitivity or specificity of an identified test
- Roberts-Thomson I C, Stevens D P, Michel B. Factors influencing small bowel changes in dermatitis herpetiformis. *Australian and New Zealand Journal of Medicine* 1977;7(4):356-362. Not sensitivity or specificity of an identified test
- Robertson D A, Bullen A, Field H et al. Suppressor cell activity, splenic function and HLA B8 status in man. *Journal of Clinical & Laboratory Immunology* 1982;9(2):133-138. Not sensitivity or specificity of an identified test
- Robinson B N, Roberts D F, Mather B A et al. Coeliac disease and HLA: a family study. *Journal of Immunogenetics* 1980;7(5):381-391. Not sensitivity or specificity of an identified test
- Robinson D C, Watson A J, Wyatt E H et al. Incidence of small-intestinal mucosal abnormalities and of clinical coeliac disease in the relatives of children with coeliac disease. *Gut* 1971;12(10):789-793. Not sensitivity or specificity of an identified test
- Robinson T J, Nelson S D, Haire M et al. Jejunal villous changes associated with farmer's lung. *Postgraduate Medical Journal* 1981;57(673):697-701. Not sensitivity or specificity of an identified test
- Robles David T, Fain Pamela R, Gottlieb Peter A et al. The genetics of autoimmune polyendocrine syndrome type II. *Endocrinology and Metabolism Clinics of North America* 2002;31(2):353-68, Vi. Not sensitivity or specificity of an identified test
- Roch A M, Noel P, el Alaoui S et al. Differential expression of isopeptide bonds N epsilon (gamma-glutamyl) lysine in benign and malignant human breast lesions: an immunohistochemical study. *International Journal of Cancer*. *Journal International Du Cancer* 1991;48(2):215-220. Not sensitivity or specificity of an identified test
- Rodriguez-Soriano J, Arrieta A, Vallo A et al. IgA antiigliadin antibodies in children with IgA mesangial glomerulonephritis. *Lancet* 1988;1(8594):1109-1110. Not sensitivity or specificity of an identified test
- Roep B O, Bontrop R E, Pena A S et al. An HLA-DQ alpha allele identified at DNA and protein level is strongly associated with celiac disease. *Hum Immunol* 1988;23(4):271-279. Not sensitivity or specificity of an identified test
- Roger M. Influence of host genes on HIV-1 disease progression. *Faseb J* 1998;12(9):625-632. Not sensitivity or specificity of an identified test
- Rogers A I. Steatorrhea. *Postgraduate Medicine* 1971;50(6):123-129. Not sensitivity or specificity of an identified test

identified test

Roggini M, Bonamico M, Capocaccia P et al. Radiological changes of the ileum in children with coeliac disease: is "intestinal adaptation" a specific radiographic sign?. *Rivista Europea Per Le Scienze Mediche E Farmacologiche = European Review for Medical and Pharmacological Sciences = Revue Europeenne Pour Les Sciences Medicales Et Pharmacologiques* 1990;12(3):159-164. Not sensitivity or specificity of an identified test

Rognum T O, Kett K, Fausa O et al. Raised number of jejunal IgG2-producing cells in untreated adult coeliac disease compared with food allergy. *Gut* 1989;30(11):1574-1580. Not sensitivity or specificity of an identified test

Rokkas T, Vaja S, Murphy G M et al. Postheparin plasma diamine oxidase in health and intestinal disease. *Gastroenterology* 1990;98(6):1493-1501. Not sensitivity or specificity of an identified test

Roldan M B, Barrio R, Roy G et al. Diagnostic value of serological markers for celiac disease in diabetic children and adolescents. *Journal of Pediatric Endocrinology & Metabolism - Jpem* 1998;11(6):751-756. Improper control group

Rollason T P, Byrne P, Williams A et al. Expression of epithelial membrane and 3-fucosyl-N-acetyllactosamine antigens in cervix uteri with particular reference to adenocarcinoma in situ. *Journal of Clinical Pathology* 1988;41(5):547-552. Not sensitivity or specificity of an identified test

Rolles C J. Proceedings: Usefulness of a modified D-xylose absorption test in the preliminary diagnosis of coeliac disease and its later confirmation. *Archives of Disease in Childhood* 1973;48(10):825. Not sensitivity or specificity of an identified test

Rolles C J, McNeish A S. Standardised approach to gluten challenge in diagnosing childhood coeliac disease. *British Medical Journal* 1976;1(6021):1309-1311. Not sensitivity or specificity of an identified test

Rolles C J, Anderson M, McNeish A S. Confirming persistence of gluten intolerance in children diagnosed as having coeliac disease in infancy. *Archives of Disease in Childhood* 1975;50(4):259-263. Not sensitivity or specificity of an identified test

Rolles C J, Nutter S, Kendall M J et al. One-hour blood-xylose screening-test for coeliac disease in infants and young children. *Lancet* 1973;2(7837):1043-1045. Not sensitivity or specificity of an identified test

Romaldini Ceres C, Barbieri Dorina, Okay Thelma S et al. Serum soluble interleukin-2 receptor, interleukin-6, and tumor necrosis factor-alpha levels in children with celiac disease: response to treatment. *Journal of Pediatric Gastroenterology and Nutrition* 2002;35(4):513-517. Not

sensitivity or specificity of an identified test

Romano Corrado, Pettinato Rosa, Ragusa Letizia et al. Is there a relationship between zinc and the peculiar comorbidities of Down syndrome?. *Down Syndrome, Research and Practice - the Journal of the Sarah Duffen Centre / University of Portsmouth* 2002;8(1):25-28. Not sensitivity or specificity of an identified test

Ronningen K S. Genetics in the prediction of insulin-dependent diabetes mellitus: from theory to practice. *Annals of Medicine* 1997;29(5):387-392. Not sensitivity or specificity of an identified test

Ronningen K S, Keiding N, Green A. Correlations between the incidence of childhood-onset type I diabetes in Europe and HLA genotypes. *Diabetologia* 2001;44 Suppl 3b51-b59. Not sensitivity or specificity of an identified test

Ronningen K S, Undlien D E, Ploski R et al. Linkage disequilibrium between TAP2 variants and HLA class II alleles; no primary association between TAP2 variants and insulin-dependent diabetes mellitus. *European Journal of Immunology* 1993;23(5):1050-1056. Not sensitivity or specificity of an identified test

Rood J J, Hooff J P, Keuning J J. Disease predisposition, immune responsiveness and the fine structure of the HL-A supergene. A need for a reappraisal. *Transplantation Reviews* 1975;2275-104. Not sensitivity or specificity of an identified test

Rorke E A, Jacobberger J W. Transforming growth factor-beta 1 (TGF beta 1) enhances apoptosis in human papillomavirus type 16-immortalized human ectocervical epithelial cells. *Experimental Cell Research* 1995;216(1):65-72. Not sensitivity or specificity of an identified test

Rosa Utiyama S R, Silva Kotze L M, Nisihara R M et al. Spectrum of autoantibodies in celiac patients and relatives. *Digestive Diseases and Sciences* 2001;46(12):2624-2630. Not sensitivity or specificity of an identified test

Rosales J L, Isseroff R R. Increased expression of a high molecular weight (130 KD) protein kinase C isoform in a differentiation-defective ras-transfected keratinocyte line. *Journal of Cellular Physiology* 1995;164(3):509-521. Not sensitivity or specificity of an identified test

Rosch T. Small-bowel endoscopy. *Endoscopy* 2002;34(11):896-899. Not sensitivity or specificity of an identified test

Roschmann E, Wienker T F, Volk B A. Role of T cell receptor delta gene in susceptibility to celiac disease. *Journal of Molecular Medicine (Berlin, Germany)* 1996;74(2):93-98. Not sensitivity or specificity of an identified test

Roschmann E, Wienker T F, Gerok W et al. T-cell receptor variable genes and genetic susceptibility to celiac disease:

- an association and linkage study. *Gastroenterology* 1993;105(6):1790-1796. Not sensitivity or specificity of an identified test
- Roschmann E, Wienker T F, Gerok W et al. Analysis of marker genes contributing to coeliac disease susceptibility. *Advances in Experimental Medicine and Biology* 1995;371b:1339-1343. Not sensitivity or specificity of an identified test
- Rosdy M, Clauss L C. Terminal epidermal differentiation of human keratinocytes grown in chemically defined medium on inert filter substrates at the air-liquid interface. *Journal of Investigative Dermatology* 1990;95(4):409-414. Not sensitivity or specificity of an identified test
- Rose C, Dieterich W, Brocker E B et al. Circulating autoantibodies to tissue transglutaminase differentiate patients with dermatitis herpetiformis from those with linear IgA disease. *Journal of the American Academy of Dermatology* 1999;41(6):957-961. Not sensitivity or specificity of an identified test
- Rosekrans P C, Lindeman J, Meijer C J. Quantitative histological and immunohistochemical findings in jejunal biopsy specimens in giardiasis. *Virchows Archiv.A, Pathological Anatomy and Histology* 1981;393(2):145-151. Not sensitivity or specificity of an identified test
- Rosekrans P C, Meijer C J, Polanco I et al. Long-term morphological and immunohistochemical observations on biopsy specimens of small intestine from children with gluten-sensitive enteropathy. *Journal of Clinical Pathology* 1981;34(2):138-144. Unable to extract data
- Rosenbach Y, Dinari G, Zahavi I et al. Short stature as the major manifestation of celiac disease in older children. *Clin Pediatr* 1986;25(1):13-16. Not sensitivity or specificity of an identified test
- Rosenberg W M, Moss P A, Bell J I. Molecular aspects of autoimmunity: a review. *Curr Eye Res* 1992;11 Suppl:17-23. Not sensitivity or specificity of an identified test
- Rosenberg W M, Prince C, Kaklamanis L et al. Increased expression of CD44v6 and CD44v3 in ulcerative colitis but not colonic Crohn's disease. *Lancet* 1995;345(8959):1205-1209. Not sensitivity or specificity of an identified test
- Rosenberg W M, Wordsworth B P, Jewell D P et al. A locus telomeric to HLA-DPB encodes susceptibility to coeliac disease. *Immunogenetics* 1989;30(4):307-310. Not sensitivity or specificity of an identified test
- Rosenblatt S, Bassuk J A, Alpers C E et al. Differential modulation of cell adhesion by interaction between adhesive and counter-adhesive proteins: characterization of the binding of vitronectin to osteonectin (BM40, SPARC). *Biochemical Journal* 1997;324(Pt 1):311-319. Not sensitivity or specificity of an identified test
- Rosenthal D S, Roop D R, Huff C A et al. Changes in photo-aged human skin following topical application of all-trans retinoic acid. *Journal of Investigative Dermatology* 1990;95(5):510-515. Not sensitivity or specificity of an identified test
- Rosenthal E, Golan D T, Benderly A. Immunofluorescent antiglutin antibody test. Titer and profile of gluten antibodies in celiac disease. *Am J Dis Child* 1984;138(7):659-662. Not sensitivity or specificity of an identified test
- Rossi T M, Tjota A. Serologic indicators of celiac disease. *Journal of Pediatric Gastroenterology and Nutrition* 1998;26(2):205-210. Not sensitivity or specificity of an identified test
- Rossi T M, Albini C H, Kumar V. Incidence of celiac disease identified by the presence of serum endomysial antibodies in children with chronic diarrhea, short stature, or insulin-dependent diabetes mellitus. *Journal of Pediatrics* 1993;123(2):262-264. Not sensitivity or specificity of an identified test
- Rossi T M, Kumar V, Lerner A et al. Relationship of endomysial antibodies to jejunal mucosal pathology: specificity towards both symptomatic and asymptomatic celiacs. *Journal of Pediatric Gastroenterology and Nutrition* 1988;7(6):858-863. Serology <1990
- Rossiter M A, Van Noorden S. Proceedings: Secretin cells in childhood coeliac disease. *Archives of Disease in Childhood* 1974;49(3):244. Not sensitivity or specificity of an identified test
- Rossiter M A, Barrowman J A, Dand A et al. Amylase content of mixed saliva in children. *Acta Paediatr Scand* 1974;63(3):389-392. Not sensitivity or specificity of an identified test
- Rossiter M A, Palmer T, Evans K et al. The short term response to a drink of milk, lactose or casein in children with apparently normal gastrointestinal tracts. *Br J Nutr* 1974;32(3):605-613. Not sensitivity or specificity of an identified test
- Rostami K, Mulder C J J. Coeliac disease. A challenging diagnosis. *Rom J Gastroenterol* 1999;8(2):111-114. Not sensitivity or specificity of an identified test
- Rostami K, Kerckhaert J P, Tiemessen R et al. The relationship between anti-endomysium antibodies and villous atrophy in coeliac disease using both monkey and human substrate. *European Journal of Gastroenterology & Hepatology* 1999;11(4):439-442. Improper control group
- Rostami K, Kerckhaert J, Tiemessen R et al. Sensitivity of antiendomysium and antigliadin antibodies in untreated celiac disease: disappointing in clinical practice. *American Journal of Gastroenterology* 1999;94(4):888-894. Improper control group
- Rostami K, Kerckhaert J, von Blomberg B M et al. SAT

- and serology in adult coeliacs, seronegative coeliac disease seems a reality. *Netherlands Journal of Medicine* 1998;53(1):15-19. Not sensitivity or specificity of an identified test
- Rostami K, Mulder C J J, Stapell S et al. Autoantibodies and histogenesis of celiac disease. *Rom J Gastroenterol* 2003;12(2):101-106. Improper control group
- Rostami K, Mulder C J, van Overbeek F M et al. Should relatives of coeliacs with mild clinical complaints undergo a small-bowel biopsy despite negative serology?. *European Journal of Gastroenterology & Hepatology* 2000;12(1):51-55. Improper control group
- Rostami K, Mulder C J, Werre J M et al. High prevalence of celiac disease in apparently healthy blood donors suggests a high prevalence of undiagnosed celiac disease in the Dutch population. *Scandinavian Journal of Gastroenterology* 1999;34(3):276-279. Not sensitivity or specificity of an identified test
- Rostoker G, Delchier J C, Chaumette M T. Increased intestinal intra-epithelial T lymphocytes in primary glomerulonephritis: a role of oral tolerance breakdown in the pathophysiology of human primary glomerulonephritis?. *Nephrology, Dialysis, Transplantation - Official Publication of the European Dialysis and Transplant Association - European Renal Association* 2001;16(3):513-517. Not sensitivity or specificity of an identified test
- Rostoker G, Laurent J, Andre C et al. High levels of IgA antigliadin antibodies in patients who have IgA mesangial glomerulonephritis but not coeliac disease. *Lancet* 1988;1(8581):356-357. Not sensitivity or specificity of an identified test
- Roth E B, Sjoberg K, Stenberg P. Biochemical and immuno-pathological aspects of tissue transglutaminase in coeliac disease. *Autoimmunity* 2003;36(4):221-226. Not sensitivity or specificity of an identified test
- Rotter J I, Landaw E M. Measuring the genetic contribution of a single locus to a multilocus disease. *Clinical Genetics* 1984;26(6):529-542. Not sensitivity or specificity of an identified test
- Roy-Choudhury D C, Cooke W T, Banwell J G et al. Multiple jejunal biopsies in adult celiac disease. *American Journal of Digestive Diseases* 1967;12(7):657-663. Unable to extract data
- Roy-Choudhury D, Cooke W T, Tan D T et al. Jejunal biopsy: criteria and significance. *Scandinavian Journal of Gastroenterology* 1966;1(1):57-74. Unable to extract data
- Ruan E A, Komorowski R A, Hogan W J et al. Nongranulomatous chronic idiopathic enterocolitis: Clinicopathologic profile and response to corticosteroids. *Gastroenterology* 1996;111(3):629-637. Not sensitivity or specificity of an identified test
- Rubesin S E. Simplified approach to differential diagnosis of small bowel abnormalities. *Radiol Clin North Am* 2003;41(2):343-364. Not sensitivity or specificity of an identified test
- Rubin A L, Rice R H. 2,3,7,8-Tetrachlorodibenzo-p-dioxin and polycyclic aromatic hydrocarbons suppress retinoid-induced tissue transglutaminase in SCC-4 cultured human squamous carcinoma cells. *Carcinogenesis* 1988;9(6):1067-1070. Not sensitivity or specificity of an identified test
- Rubin A L, Parenteau N L, Rice R H. Coordination of keratinocyte programming in human SCC-13 squamous carcinoma and normal epidermal cells. *Journal of Cellular Physiology* 1989;138(1):208-214. Not sensitivity or specificity of an identified test
- Rubin C E, Brandborg L L, Phelps P C et al. Studies of celiac disease. I. The apparent identical and specific nature of the duodenal and proximal jejunal lesion in celiac disease and idiopathic sprue. *Gastroenterology* 1968;54(4):SupplUnable to extract data
- Rubio C A. A simple method to demonstrate duodenal gastric metaplasia. *Journal of Clinical Pathology* 2002;55(7):520-523. Not sensitivity or specificity of an identified test
- Rubio C A, Theorell M, Befrits R et al. The characteristics of mitotic figures in jejunal mucosa of patients with celiac disease. *Am J Clin Pathol* 1992;98(6):575-578. Not sensitivity or specificity of an identified test
- Rudchenko S, Trakht I, Sobel J H. Comparative structural and functional features of the human fibrinogen alpha C domain and the isolated alpha C fragment. Characterization using monoclonal antibodies to defined COOH-terminal A alpha chain regions. *Journal of Biological Chemistry* 1996;271(5):2523-2530. Not sensitivity or specificity of an identified test
- Rude R K, Olerich M. Magnesium deficiency: Possible role in osteoporosis associated with gluten-sensitive enteropathy. *Osteoporosis Int* 1996;6(6):453-461. Not sensitivity or specificity of an identified test
- Rudolph P, Schubert C, Zelger B G et al. Differential expression of CD34 and Ki-M1p in pleomorphic fibroma and dermatofibroma with monster cells. *American Journal of Dermatopathology* 1999;21(5):414-419. Not sensitivity or specificity of an identified test
- Rudy G, Lew A M. Limited polymorphism of the HLA-DQA2 promoter and identification of a variant octamer. *Human Immunology* 1994;39(3):225-229. Not sensitivity or specificity of an identified test
- Rueda B, Pascual M, Lopez-Nevot M A et al. A new allele within the transmembrane region of the human MICA gene with seven GCT repeats. *Tissue Antigens* 2002;60(6):526-528. Not sensitivity or specificity of an identified test

Rueda B, Pascual M, Lopez-Nevot M A et al. Association of MICA-A5.1 allele with susceptibility to celiac disease in a family study. *American Journal of Gastroenterology* 2003;98(2):359-362. Not sensitivity or specificity of an identified test

Rueda Blanca, Lopez-Nevot Miguel, Angel Pascual et al. Polymorphism of the inducible nitric oxide synthase gene in celiac disease. *Human Immunology* 2002;63(11):1062-1065. Not sensitivity or specificity of an identified test

Ruiz del Prado M Y, Olivares Lopez J L et al. HLA system. Phenotypic and gene frequencies in celiac and healthy subjects from the same geographical area. *Revista Espanola De Enfermedades Digestivas - Organo Oficial De La Sociedad Espanola De Patologia Digestiva* 2001;93(2):106-113. Improper control group

Ruiz M Y, Olivares J L. Three-loci HLA haplotypes in Spanish celiac children and healthy subjects: estimation of linkage disequilibrium and haplotype frequencies. *American Journal of Gastroenterology* 2001;96(5):1455-1459. Improper control group

Rujner J, Socha J, Barra E et al. Serum and salivary antigliadin antibodies and serum IgA anti-endomysium antibodies as a screening test for coeliac disease. *Acta Paediatrica (Oslo, Norway - 1992)* 1996;85(7):814-817. Improper control group

Rujner J, Wisniewski A, Gregorek H et al. Coeliac disease and HLA-DQ 2 (DQA1\* 0501 and DQB1\* 0201) in patients with Turner syndrome. *Journal of Pediatric Gastroenterology and Nutrition* 2001;32(1):114-115. Not sensitivity or specificity of an identified test

Rumbo M, Chirido F G, Anon M C et al. Detection and characterization of antibodies specific to food antigens (gliadin, ovalbumin and beta-lactoglobulin) in human serum, saliva, colostrum and milk. *Clinical and Experimental Immunology* 1998;112(3):453-458. Not sensitivity or specificity of an identified test

Rumbo M, Chirido F G, Ben R et al. Evaluation of coeliac disease serological markers in Down syndrome patients. *Digestive and Liver Disease - Official Journal of the Italian Society of Gastroenterology and the Italian Association for the Study of the Liver* 2002;34(2):116-121. Not sensitivity or specificity of an identified test

Runmarker B, Martinsson T, Wahlstrom J et al. HLA and prognosis in multiple sclerosis. *J Neurol* 1994;241(6):385-390. Not sensitivity or specificity of an identified test

Russell R I, Atherton S T, Nelson L M. Effect of an elemental diet (Vivonex) on the absorption abnormalities and histological appearances of the jejunum in untreated adult coeliac disease. *Digestion* 1979;19(5):335-339. Not sensitivity or specificity of an identified test

Rust C, Kooy Y, Pena S et al. Phenotypical and functional

characterization of small intestinal TcR gamma delta + T cells in coeliac disease. *Scandinavian Journal of Immunology* 1992;35(4):459-468. Not sensitivity or specificity of an identified test

Rustgi A K, Peppercorn M A. Gluten-sensitive enteropathy and systemic lupus erythematosus. *Archives of Internal Medicine* 1988;148(7):1583-1584. Not sensitivity or specificity of an identified test

Rutgeerts L, Tytgat G, Mainguet P et al. Enterokinase activity of normal and flat duodenal mucosa. *Acta Gastro-Enterol Belg* 1973;36(9):449-455. Not sensitivity or specificity of an identified test

Rutz Regula, Ritzler Eva, Fierz Walter et al. Prevalence of asymptomatic celiac disease in adolescents of eastern Switzerland. *Swiss Medical Weekly - Official Journal of the Swiss Society of Infectious Diseases, the Swiss Society of Internal Medicine, the Swiss Society of Pneumology* 2002;132(3-4):43-47. Not sensitivity or specificity of an identified test

Ryan B M, Kelleher D. Refractory celiac disease. *Gastroenterology* 2000;119(1):243-251. Not sensitivity or specificity of an identified test

Rybakowski J K, Chorzelski T P, Sulej J. Lack of Ig A-class endomysial antibodies, the specific marker of gluten enteropathy, in sera of schizophrenic patients. *Med Sci Res* 1990;18(8):311. Not sensitivity or specificity of an identified test

Saalman R, Dahlgren U I, Fallstrom S P et al. Avidity progression of dietary antibodies in healthy and coeliac children. *Clinical and Experimental Immunology* 2003;134(2):328-334. Not sensitivity or specificity of an identified test

Saalman R, Dahlgren U I, Fallstrom S P et al. IgG subclass profile of serum antigliadin antibodies and antibody-dependent cell-mediated cytotoxicity in young children with coeliac disease. *Scandinavian Journal of Immunology* 2001;53(1):92-98. Not sensitivity or specificity of an identified test

Saalman R, Wold A E, Dahlgren U I et al. Antibody-dependent cell-mediated cytotoxicity to gliadin-coated cells with sera from children with coeliac disease. *Scandinavian Journal of Immunology* 1998;47(1):37-42. Not sensitivity or specificity of an identified test

Saari K M. HLA and coeliac disease. *Acta Ophthalmol* 1984;62(Suppl 165):107-109. Not sensitivity or specificity of an identified test

Sacchetti L, Ferrajolo A, Salerno G et al. Diagnostic value of various serum antibodies detected by diverse methods in childhood celiac disease. *Clinical Chemistry* 1996;42(11):1838-1842. Improper control group

Sacchetti L, Sarrantonio C, Pastore L et al. Rapid

- identification of HLA DQA1\*0501, DQB1\*0201 and DRB1\*04 alleles in celiac disease by a PCR-based methodology. *Clinical Chemistry* 1997;43(11):2204-2206. Not sensitivity or specificity of an identified test
- Sacchetti L, Tinto N, Calcagno G et al. Multiplex PCR typing of the three most frequent HLA alleles in celiac disease. *Clinica Chimica Acta* 2001; *International Journal of Clinical Chemistry*; 310(2):205-207. Not sensitivity or specificity of an identified test
- Sachdev A, Srinivasan V, Maheswary S et al. Adult onset celiac disease in north India. *Tropical Gastroenterology - Official Journal of the Digestive Diseases Foundation* 2002;23(3):117-119. Not sensitivity or specificity of an identified test
- Sachs J A, Awad J, McCloskey D et al. Different HLA associated gene combinations contribute to susceptibility for coeliac disease and dermatitis herpetiformis. *Gut* 1986;27(5):515-520. Not sensitivity or specificity of an identified test
- Sacks S H, Bushell A, Rust N A et al. Functional and biochemical subtypes of the haplotype HLA-DR3 in patients with celiac disease or idiopathic membranous nephropathy. *Hum Immunol* 1987;20(2):175-187. Not sensitivity or specificity of an identified test
- Sadikali F, Darwish R, Watson W C. Carnosinase activity of human gastrointestinal mucosa. *Gut* 1975;16(8):585-589. Not sensitivity or specificity of an identified test
- Safwenberg J, Kollberg H, Lindblom J B. HLA frequencies in patients with cystic fibrosis. *Tissue Antigens* 1977;10(4):287-290. Not sensitivity or specificity of an identified test
- Saga K. Histochemical and immunohistochemical markers for human eccrine and apocrine sweat glands: an aid for histopathologic differentiation of sweat gland tumors. *Journal of Investigative Dermatology.Symposium Proceedings / the Society for Investigative Dermatology, Inc.And European Society for Dermatological Research* 2001;6(1):49-53. Not sensitivity or specificity of an identified test
- Sagaro E, Jimenez N. Family studies of coeliac disease in Cuba. *Archives of Disease in Childhood* 1981;56(2):132-133. Not sensitivity or specificity of an identified test
- Saito S, Ota S, Hashizume K et al. A new HLA-DQB1(\*)0306 allele sharing motifs from DQB1(\*)03032 and DQB1(\*)04 sequences. *Tissue Antigens* 1996;48(5):580-585. Not sensitivity or specificity of an identified test
- Sakai K, Busby W H, Clarke J B et al. Tissue transglutaminase facilitates the polymerization of insulin-like growth factor-binding protein-1 (IGFBP-1) and leads to loss of IGFBP-1's ability to inhibit insulin-like growth factor-I-stimulated protein synthesis. *Journal of Biological Chemistry* 2001;276(12):8740-8745. Not sensitivity or specificity of an identified test
- Salazar de, Sousa Magalhaes, Ramalho P et al. Reaction of rectal mucosa of celiac patients to direct contact with gluten. *Journal of Pediatric Gastroenterology and Nutrition* 1988;7(3):403-405. Not sensitivity or specificity of an identified test
- Salerno Giuseppe, De Franco, Antonio La et al. Malabsorption syndromes. *Rays* 2002;27(1):19-34. Not sensitivity or specificity of an identified test
- Salmela M T, Karjalainen-Lindsberg M L, Jeskanen L et al. Overexpression of tissue inhibitor of metalloproteinases-3 in intestinal and cutaneous lesions of graft-versus-host disease. *Mod Pathol* 2003;16(2):108-114. Not sensitivity or specificity of an identified test
- Salmela M T, Pender S L, Reunala T et al. Parallel expression of macrophage metalloelastase (MMP-12) in duodenal and skin lesions of patients with dermatitis herpetiformis. *Gut* 2001;48(4):496-502. Not sensitivity or specificity of an identified test
- Salur L, Uibo O, Talvik I et al. The high frequency of coeliac disease among children with neurological disorders. *European Journal of Neurology - the Official Journal of the European Federation of Neurological Societies* 2000;7(6):707-711. Not sensitivity or specificity of an identified test
- Salvati V M, Bajaj-Elliott M, Poulosom R et al. Keratinocyte growth factor and coeliac disease. *Gut* 2001;49(2):176-181. Not sensitivity or specificity of an identified test
- Salvati V M, MacDonald T T, Blanco G D V et al. Enhanced expression of interferon regulatory factor-1 in the mucosa of children with celiac disease. *Pediatric Research* 2003;54(3):312-318. Not sensitivity or specificity of an identified test
- Sanchez D, Tuckova L, Sebo P et al. Occurrence of IgA and IgG autoantibodies to calreticulin in coeliac disease and various autoimmune diseases. *Journal of Autoimmunity* 2000;15(4):441-449. Not sensitivity or specificity of an identified test
- Sanchez-Albisua I, Storm W, Wascher I et al. How frequent is coeliac disease in Down syndrome?. *European Journal of Pediatrics* 2002;161(12):683-684. Not sensitivity or specificity of an identified test
- Sanders D S, Carter M J, Hurlstone D P et al. Association of adult coeliac disease with irritable bowel syndrome: a case-control study in patients fulfilling ROME II criteria referred to secondary care. *Lancet* 2001;358(9292):1504-1508. Not sensitivity or specificity of an identified test
- Sanders D S, Perry I, Hardy R et al. Aberrant P-cadherin expression is a feature of clonal expansion in the gastrointestinal tract associated with repair and neoplasia.

- Journal of Pathology 2000;190(5):526-530. Not sensitivity or specificity of an identified test
- Sanders David S, Patel Dina, Stephenson Timothy J et al. A primary care cross-sectional study of undiagnosed adult coeliac disease. *European Journal of Gastroenterology & Hepatology* 2003;15(4):407-413. Not sensitivity or specificity of an identified test
- Sanderson J, Marcantonio J M, Duncan G. A human lens model of cortical cataract: Caspase 2sup +-induced protein loss, vimentin cleavage and opacification. *Invest Ophthalmol Vis Sci* 2000;41(8):2255-2261. Not sensitivity or specificity of an identified test
- Sanderson M C, Davis L R, Mowat A P. Failure of laboratory and radiological studies to predict jejunal mucosal atrophy. *Archives of Disease in Childhood* 1975;50(7):526-531. Not sensitivity or specificity of an identified test
- Sanfilippo G, Patane R, Fusto A et al. Endoscopic approach to childhood coeliac disease. *Acta Gastro-Enterologica Belgica* 1986;49(4):401-408. Unable to extract data
- Sanjeevi C B. HLA-DQ6-mediated protection in IDDM. *Human Immunology* 2000;61(2):148-153. Not sensitivity or specificity of an identified test
- Sanjeevi C B, DeWeese C, Landin-Olsson M et al. Analysis of critical residues of HLA-DQ6 molecules in insulin-dependent diabetes mellitus. *Tissue Antigens* 1997;50(1):61-65. Not sensitivity or specificity of an identified test
- Sanjeevi C B, Falorni A, Kockum I et al. HLA and glutamic acid decarboxylase in human insulin-dependent diabetes mellitus. *Diabetic Med* 1996;13(3):209-217. Not sensitivity or specificity of an identified test
- Sanjeevi C B, Hagopian W A, Landin-Olsson M et al. Association between autoantibody markers and subtypes of DR4 and DR4-DQ in Swedish children with insulin-dependent diabetes reveals closer association of tyrosine pyrophosphatase autoimmunity with DR4 than DQ8. *Tissue Antigens* 1998;51(3):281-286. Not sensitivity or specificity of an identified test
- Sanjeevi C B, Hook P, Landin-Olsson M et al. DR4 subtypes and their molecular properties in a population-based study of Swedish childhood diabetes. *Tissue Antigens* 1996;47(4):275-283. Not sensitivity or specificity of an identified test
- Sanjeevi C B, Kanungo A, Samal K C. Immunogenetic studies on malnutrition-modulated diabetes mellitus. *Annals of the New York Academy of Sciences* 2002;958144-147. Not sensitivity or specificity of an identified test
- Sanjeevi C B, Kanungo A, Shtauvere A et al. Association of HLA class II alleles with different subgroups of diabetes mellitus in Eastern India identify different associations with IDDM and malnutrition-related diabetes. *Tissue Antigens* 1999;54(1):83-87. Not sensitivity or specificity of an identified test
- Sanjeevi C B, Landin-Olsson M, Kockum I et al. The combination of several polymorphic amino acid residues in the DQalpha and DQbeta chains forms a domain structure pattern and is associated with insulin-dependent diabetes mellitus. *Annals of the New York Academy of Sciences* 2002;958362-375. Not sensitivity or specificity of an identified test
- Sanjeevi C B, Landin-Olsson M, Kockum I et al. Effects of the second HLA-DQ haplotype on the association with childhood insulin-dependent diabetes mellitus. *Tissue Antigens* 1995;45(2):148-152. Not sensitivity or specificity of an identified test
- Sanjeevi C B, Lybrand T P, DeWeese C et al. Polymorphic amino acid variations in HLA-DQ are associated with systematic physical property changes and occurrence of IDDM. *Diabetes* 1995;44(1):125-131. Not sensitivity or specificity of an identified test
- Sanjeevi C B, Lybrand T P, Landin-Olsson M et al. Analysis of antibody markers, DRB1, DRB5, DQA1 and DQB1 genes and modeling of DR2 molecules in DR2-positive patients with insulin-dependent diabetes mellitus. *Tissue Antigens* 1994;44(2):110-119. Not sensitivity or specificity of an identified test
- Sanjeevi C B, Lybrand T P, Stevanovic S et al. Molecular modeling of eluted peptides from DQ6 molecules (DQB1\*0602 and DQB1\*0604) negatively and positively associated with type 1 diabetes. *Annals of the New York Academy of Sciences* 2002;958317-320. Not sensitivity or specificity of an identified test
- Santos S, Balas A, Lillo R et al. HLA-B14 subtyping by semi-nested PCR-SSP and haplotype distribution in a Spanish population. *Tissue Antigens* 1997;50(6):671-674. Not sensitivity or specificity of an identified test
- Sapp Heidi, Ithamukkala Sarathehandra, Brien Tom P et al. The terminal ileum is affected in patients with lymphocytic or collagenous colitis. *American Journal of Surgical Pathology* 2002;26(11):1484-1492. Not sensitivity or specificity of an identified test
- Saputo V, Losi S, Mancosu M et al. Intraepithelial lymphocytes in jejunal mucosa: diagnostic significance of changes in their number during chronic intestinal disease, with particular reference to coeliac disease. *Schweizerische Rundschau Fur Medizin Praxis = Revue Suisse De Medecine Praxis* 1981;70(30):1342-1348. Unable to extract data
- Sardy M, Karpati S, Peterfy F et al. Comparison of a tissue transglutaminase ELISA with the endomysium antibody test in the diagnosis of gluten-sensitive enteropathy. *Zeitschrift Fur Gastroenterologie* 2000;38(5):357-364.

Improper control group

Sardy M, Odenthal U, Karpati S et al. Recombinant human tissue transglutaminase ELISA for the diagnosis of gluten-sensitive enteropathy. *Clinical Chemistry* 1999;45(12):2142-2149. Improper control group

Sardy Miklos, Karpati Sarolta, Merkl Barbara et al. Epidermal transglutaminase (TGase 3) is the autoantigen of dermatitis herpetiformis. *Journal of Experimental Medicine* 2002;195(6):747-757. Not sensitivity or specificity of an identified test

Sarles J, Gorvel J P, Olive D et al. Subcellular localization of class I (A,B,C) and class II (DR and DQ) MHC antigens in jejunal epithelium of children with coeliac disease. *Journal of Pediatric Gastroenterology and Nutrition* 1987;6(1):51-56. Not sensitivity or specificity of an identified test

Sarsfield P, Jones D B, Wright D H. Accessory cells in Crohn's disease of the terminal ileum. *Histopathology* 1996;28(3):213-219. Not sensitivity or specificity of an identified test

Sarsfield P, Rinne A, Jones D B et al. Accessory cells in physiological lymphoid tissue from the intestine: an immunohistochemical study. *Histopathology* 1996;28(3):205-211. Not sensitivity or specificity of an identified test

Sasado T, Kani S, Washimi K et al. Expression of murine early embryonic antigens, SSEA-1 and antigenic determinant of EMA-1, in embryos and ovarian follicles of a teleost medaka (*Oryzias latipes*). *Dev Growth Differ* 1999;41(3):293-302. Not sensitivity or specificity of an identified test

Sategna Guidetti, Carla Scaglione, Nadia Martini et al. Red cell distribution width as a marker of coeliac disease: a prospective study. *European Journal of Gastroenterology & Hepatology* 2002;14(2):177-181. Not sensitivity or specificity of an identified test

Sategna-Guidetti C, Grosso S. Changing pattern in adult coeliac disease: A 24-year survey. *European Journal of Gastroenterology & Hepatology* 1994;6(1):15-19. Not sensitivity or specificity of an identified test

Sategna-Guidetti C, Bruno M, Mazza E et al. Autoimmune thyroid diseases and coeliac disease. *European Journal of Gastroenterology & Hepatology* 1998;10(11):927-931. Not sensitivity or specificity of an identified test

Sategna-Guidetti C, Bruno M, Pulitano R et al. Disease specificity of IgA class anti-endomysium antibodies (IgA-EMA) in adult coeliac disease. *European Journal of Gastroenterology & Hepatology* 1991;3(3):251-254. Not sensitivity or specificity of an identified test

Sategna-Guidetti C, Ferfaglia G, Bruno M et al. Do IgA anti gliadin and IgA antiendomysium antibodies show there

is latent coeliac disease in primary IgA nephropathy?. *Gut* 1992;33(4):476-478. Not sensitivity or specificity of an identified test

Sategna-Guidetti C, Grosso S B, Bruno M et al. Indirect immunofluorescence for of anti-jejunum antibody detection in celiac disease: comparison among different antigenic substrates. *Panminerva Medica* 1998;40(4):261-263. Not sensitivity or specificity of an identified test

Sategna-Guidetti C, Grosso S B, Bruno M et al. Is human umbilical cord the most suitable substrate for the detection of endomysium antibodies in the screening and follow-up of coeliac disease?. *European Journal of Gastroenterology & Hepatology* 1997;9(7):657-660. Improper control group

Sategna-Guidetti C, Grosso S B, Grosso S et al. The effects of 1-year gluten withdrawal on bone mass, bone metabolism and nutritional status in newly-diagnosed adult coeliac disease patients. *Alimentary Pharmacology & Therapeutics* 2000;14(1):35-43. Not sensitivity or specificity of an identified test

Sategna-Guidetti C, Grosso S, Bruno M et al. Reliability of immunologic markers of celiac sprue in the assessment of mucosal recovery after gluten withdrawal. *Journal of Clinical Gastroenterology* 1996;23(2):101-104. Not sensitivity or specificity of an identified test

Sategna-Guidetti C, Grosso S, Pulitano R et al. Celiac disease and insulin-dependent diabetes mellitus. Screening in an adult population. *Digestive Diseases and Sciences* 1994;39(8):1633-1637. Not sensitivity or specificity of an identified test

Sategna-Guidetti C, Pulitano R, Grosso S et al. Serum IgA antiendomysium antibody titers as a marker of intestinal involvement and diet compliance in adult celiac sprue. *Journal of Clinical Gastroenterology* 1993;17(2):123-127. Not sensitivity or specificity of an identified test

Sategna-Guidetti C, Volta U, Ciacci C et al. Prevalence of thyroid disorders in untreated adult celiac disease patients and effect of gluten withdrawal: an Italian multicenter study. *American Journal of Gastroenterology* 2001;96(3):751-757. Not sensitivity or specificity of an identified test

Satsangi J, Welsh K I, Bunce M et al. Contribution of genes of the major histocompatibility complex to susceptibility and disease phenotype in inflammatory bowel disease. *Lancet* 1996;347(9010):1212-1217. Not sensitivity or specificity of an identified test

Saukkonen T, Ilonen J, Akerblom H K et al. Prevalence of coeliac disease in siblings of patients with Type I diabetes is related to the prevalence of DQB1\*02 allele. *Diabetologia* 2001;44(8):1051-1053. Improper control group

Saukkonen T, Savilahti E, Reijonen H et al. Coeliac disease: frequent occurrence after clinical onset of insulin-

- dependent diabetes mellitus. Childhood Diabetes in Finland Study Group. *Diabetic Medicine - a Journal of the British Diabetic Association* 1996;13(5):464-470. Not sensitivity or specificity of an identified test
- Savage D A, Middleton D, Trainor F et al. HLA class II frequencies in celiac disease patients in the west of Ireland. *Human Immunology* 1992;34(1):47-52. Not sensitivity or specificity of an identified test
- Savermuttu S H, Sabbat J, Burke M et al. Impact of endoscopic duodenal biopsy on the detection of small intestinal villous atrophy. *Postgraduate Medical Journal* 1991;67(783):47-49. Unable to extract data
- Savidge T C, Shmakov A N, Walker-Smith J A et al. Epithelial cell proliferation in childhood enteropathies. *Gut* 1996;39(2):185-193. Not sensitivity or specificity of an identified test
- Savilahti E. IgA deficiency in children. Immunoglobulin-containing cells in the intestinal mucosa, immunoglobulins in secretions and serum IgA levels. *Clinical and Experimental Immunology* 1973;13(3):395-406. Not sensitivity or specificity of an identified test
- Savilahti E, Arato A, Verkasalo M. Intestinal gamma/delta receptor-bearing T lymphocytes in celiac disease and inflammatory bowel diseases in children. Constant increase in celiac disease. *Pediatric Research* 1990;28(6):579-581. Not sensitivity or specificity of an identified test
- Savilahti E, Launiala K, Kuitunen P. Jejunal disaccharidases in children with selective IgA deficiency. *Scandinavian Journal of Gastroenterology* 1973;8(5):417-419. Not sensitivity or specificity of an identified test
- Savilahti E, Ormala T, Arato A et al. Density of gamma/delta<sup>+</sup> T cells in the jejunal epithelium of patients with coeliac disease and dermatitis herpetiformis is increased with age. *Clinical and Experimental Immunology* 1997;109(3):464-467. Not sensitivity or specificity of an identified test
- Savilahti E, Ormala T, Saukkonen T et al. Jejuna of patients with insulin-dependent diabetes mellitus (IDDM) show signs of immune activation. *Clinical and Experimental Immunology* 1999;116(1):70-77. Not sensitivity or specificity of an identified test
- Savilahti E, Pelkonen P, Verkasalo M et al. Selective deficiency of immunoglobulin A in children. *Klinische Padiatrie* 1985;197(4):336-340. Not sensitivity or specificity of an identified test
- Savilahti E, Reunala T, Maki M. Increase of lymphocytes bearing the gamma/delta T cell receptor in the jejunum of patients with dermatitis herpetiformis. *Gut* 1992;33(2):206-211. Not sensitivity or specificity of an identified test
- Savilahti E, Simell O, Koskimies S et al. Celiac disease in insulin-dependent diabetes mellitus. *Journal of Pediatrics* 1986;108(5 Pt 1):690-693. Improper control group
- Savilahti E, Viander M, Perkkio M et al. IgA antigliadin antibodies: a marker of mucosal damage in childhood coeliac disease. *Lancet* 1983;1(8320):320-322. Not sensitivity or specificity of an identified test
- Sblattero D, Florian F, Not T et al. Analyzing the peripheral blood antibody repertoire of a celiac disease patient using phage antibody libraries. *Human Antibodies* 2000;9(4):199-205. Not sensitivity or specificity of an identified test
- Sblattero Daniele, Florian Fiorella, Azzoni Elisabetta et al. The analysis of the fine specificity of celiac disease antibodies using tissue transglutaminase fragments. *European Journal of Biochemistry / Febs* 2002;269(21):5175-5181. Not sensitivity or specificity of an identified test
- Scalici C, Manzoni D, Licastro G et al. Reliability of EMA assay in the evaluation of gluten-free diet compliance in celiac patients during follow-up. *Acta Med Mediterr* 2003;19(1):67-69. Not sensitivity or specificity of an identified test
- Schaad U, Gaze H, Hadorn B. Value of 1-hour blood-xylose test in diagnosis of childhood coeliac disease. *Arch Dis Child* 1978;53(5):420-422. Not sensitivity or specificity of an identified test
- Schaffer M, Olerup O. A novel DRB1(\*)13 allele (DRB1(\*)1327) on a DR17,DQ2 haplotype with a DRB1(\*)0301 sequence motif in the 2nd hyperpolymorphic region. *Tissue Antigens* 1997;49(2):186-188. Not sensitivity or specificity of an identified test
- Schattner A, Kozak N, Lassry Y et al. Primary intestinal T-cell lymphoma and sclerosing cholangitis: A cytokine-mediated association?. *J Intern Med (Gbr)* 1998;244(6):537-541. Not sensitivity or specificity of an identified test
- Schaumburg-Lever G, Gehring B, Kaiserling E. Ultrastructural localization of factor XIIIa. *Journal of Cutaneous Pathology* 1994;21(2):129-134. Not sensitivity or specificity of an identified test
- Schenk E A, Samloff I M. Clinical and morphologic changes following gluten administration to patients with treated celiac disease. *American Journal of Pathology* 1968;52(3):579-593. Unable to extract data
- Schenk E A, Samloff I M, Klipstein F A. Morphologic characteristics of jejunal biopsy in celiac disease and tropical sprue. *American Journal of Pathology* 1965;47(5):765-781. Not sensitivity or specificity of an identified test
- Schenk E A, Samloff I M, Klipstein F A. Morphology of small bowel biopsies. *American Journal of Clinical Nutrition* 1968;21(9):944-961. Not sensitivity or specificity

of an identified test

Schenker S. Adverse reactions to food. *Nutr Bull* 2002;27(2):125-127. Not sensitivity or specificity of an identified test

Scherak O, Smolen J S, Mayr W R. HLA-DRw3 and systemic lupus erythematosus. *Arthritis Rheum* 1980;23(8):954-957. Not sensitivity or specificity of an identified test

Schmid D G, der Mulbe F D, Fleckenstein B et al. Broadband detection electrospray ionization Fourier transform ion cyclotron resonance mass spectrometry to reveal enzymatically and chemically induced deamidation reactions within peptides. *Analytical Chemistry* 2001;73(24):6008-6013. Not sensitivity or specificity of an identified test

Schmidt R, Michel S, Shroot B et al. Transglutaminases in normal and transformed human keratinocytes in culture. *Journal of Investigative Dermatology* 1988;90(4):475-479. Not sensitivity or specificity of an identified test

Schmitz J. Is celiac disease a lifelong disorder?. *Clinical and Investigative Medicine. Medecine Clinique Et Experimentale* 1996;19(5):352-356. Not sensitivity or specificity of an identified test

Schmitz J. Lack of oats toxicity in coeliac disease. *Br Med J* 1997;314(7075):159-160. Not sensitivity or specificity of an identified test

Schneppenheim R, Budde U, Dahlmann N et al. Luminography--a new, highly sensitive visualization method for electrophoresis. *Electrophoresis* 1991;12(5):367-372. Not sensitivity or specificity of an identified test

Schober E, Bittmann B, Granditsch G et al. Screening by anti-endomysium antibody for celiac disease in diabetic children and adolescents in Austria. *Journal of Pediatric Gastroenterology and Nutrition* 2000;30(4):391-396. Not sensitivity or specificity of an identified test

Schober Edith, Rami Birgit, Granditsch Gerhard et al. Coeliac disease in children and adolescents with type 1 diabetes mellitus: to screen or not, to treat or not?. *Hormone Research* 2002;57(Suppl 1):97-100. Not sensitivity or specificity of an identified test

Scholz S, Albert E. HLA and diseases: involvement of more than one HLA-linked determinant of disease susceptibility. *Immunological Reviews* 1983;7077-88. Not sensitivity or specificity of an identified test

Schroeder W T, Thacher S M, Stewart-Galetka S et al. Type I keratinocyte transglutaminase: expression in human skin and psoriasis. *Journal of Investigative Dermatology* 1992;99(1):27-34. Not sensitivity or specificity of an identified test

Schulzke J D, Bentzel C J, Schulzke I et al. Epithelial tight junction structure in the jejunum of children with acute and treated celiac sprue. *Pediatric Research* 1998;43(4 Pt 1):435-441. Not sensitivity or specificity of an identified test

Schulzke J D, Schulzke I, Fromm M et al. Epithelial barrier and ion transport in coeliac sprue: electrical measurements on intestinal aspiration biopsy specimens. *Gut* 1995;37(6):777-782. Not sensitivity or specificity of an identified test

Schuppan D, Ciccocioppo R. Coeliac disease and secondary autoimmunity. *Digestive and Liver Disease - Official Journal of the Italian Society of Gastroenterology and the Italian Association for the Study of the Liver* 2002;34(1):13-15. Not sensitivity or specificity of an identified test

Schuppan D, Hahn E G. Celiac disease and its link to type 1 diabetes mellitus. *Journal of Pediatric Endocrinology & Metabolism* 2001;14 Suppl 1597-605. Not sensitivity or specificity of an identified test

Schuppan D, Hahn E G. IgA anti-tissue transglutaminase: setting the stage for coeliac disease screening. *European Journal of Gastroenterology & Hepatology* 2001;13(6):635-637. Not sensitivity or specificity of an identified test

Schuppan D, Dieterich W, Riecken E O. Exposing gliadin as a tasty food for lymphocytes. *Nature Medicine* 1998;4(6):666-667. Not sensitivity or specificity of an identified test

Schuppan D, Dieterich W, Ehnis T et al. Identification of the autoantigen of celiac disease. *Annals of the New York Academy of Sciences* 1998;859:121-126. Not sensitivity or specificity of an identified test

Schuppan D, Ruehl M, Somasundaram R et al. Matrix as a modulator of hepatic fibrogenesis. *Seminars in Liver Disease* 2001;21(3):351-372. Not sensitivity or specificity of an identified test

Schuppan Detlef, Hahn Eckhart G. Biomedicine. Gluten and the gut-lessons for immune regulation. *Science* 2002;297(5590):2218-2220. Not sensitivity or specificity of an identified test

Schuppan Detlef, Esslinger Birgit, Dieterich Walburga. Innate immunity and coeliac disease. *Lancet* 2003;362(9377):3-4. Not sensitivity or specificity of an identified test

Schutz S M, Stroebel J, Schutz E M et al. Celiac sprue. Diagnosis and diet: keys to recovery. *North Carolina Medical Journal* 1994;55(1):32-36. Not sensitivity or specificity of an identified test

Schwartz F C M, Lunat M, Wolfsdorf J. Blood xylose concentrations in protein energy malnutrition. Relationship to serum albumin and jejunal histology. *S Afr Med J*

- 1974;48(58):2387-2390. Not sensitivity or specificity of an identified test
- Schweiger G D, Murray J A. Postbulbar duodenal ulceration and stenosis associated with celiac disease. *Abdom Imaging* 1998;23(4):347-349. Not sensitivity or specificity of an identified test
- Schweizer J J, Mearin M L, Pena A S et al. Expression of HLA-DQ antigens in the small-intestinal mucosa of patients with coeliac disease. *Scandinavian Journal of Gastroenterology* 1991;26(6):605-610. Not sensitivity or specificity of an identified test
- Scoglio Riccardo, Di Pasquale, Giuseppe Pagano et al. Is intestinal biopsy always needed for diagnosis of celiac disease?. *American Journal of Gastroenterology* 2003;98(6):1325-1331. Improper control group
- Scott Losowsky B B M S. Coeliac disease with mild mucosal abnormalities: a report of our patients. *Postgrad Med J* 1977;53(617):134-138. Improper control group
- Scott B B, Losowsky M S. Patchiness and duodenal-jejunal variation of the mucosal abnormality in coeliac disease and dermatitis herpetiformis. *Gut* 1976;17(12):984-992. Unable to extract data
- Scott B B, Losowsky M S. Proceedings: Patchiness of the mucosal abnormality in coeliac disease (CD) and dermatitis herpetiformis (DH). *Gut* 1975;16(5):393Unable to extract data
- Scott B B, Fairman M J, Toothill C et al. The expression enzyme activity of biopsy tissue from the small intestine. *Digestion* 1977;15(3):182-187. Not sensitivity or specificity of an identified test
- Scott B B, Goodall A, Stephenson P et al. Small intestinal plasma cells in coeliac disease. *Gut* 1984;25(1):41-46. Not sensitivity or specificity of an identified test
- Scott B B, Goodall A, Stephenson P et al. Duodenal bulb plasma cells in duodenitis and duodenal ulceration. *Gut* 1985;26(10):1032-1037. Not sensitivity or specificity of an identified test
- Scott B B, Hardy G J, Losowsky M S. Involvement of the small intestine in systemic mast cell disease. *Gut* 1975;16(11):918-924. Not sensitivity or specificity of an identified test
- Scott B B, Losowsky M S, Rajah S M. Letter: HL-A8 and HL-A12 in coeliac disease. *Lancet* 1974;2(7873):171Not sensitivity or specificity of an identified test
- Scott B B, Scott D G, Losowsky M S. Jejunal mucosal immunoglobulins and complement in untreated coeliac disease. *J Pathol* 1977;121(4):219-223. Not sensitivity or specificity of an identified test
- Scott B B, Swinburne M L, Rajah S M et al. HL A8 and the immune response to gluten. *Lancet* 1974;2(7877):374-377. Not sensitivity or specificity of an identified test
- Scott B B, Young S, Rajah S M et al. Coeliac disease and dermatitis herpetiformis: further studies of their relationship. *Gut* 1976;17(10):759-762. Not sensitivity or specificity of an identified test
- Scott B B, Young S, Rajah S M et al. Proceedings: The incidence of coeliac diseases and HL-A8 in dermatitis herpetiformis. *Gut* 1975;16(10):845Not sensitivity or specificity of an identified test
- Scott H, Brandtzaeg P, Solheim B G et al. Relation between HLA-DR-like antigens and secretory component (SC) in jejunal epithelium of patients with coeliac disease or dermatitis herpetiformis. *Clinical and Experimental Immunology* 1981;44(2):233-238. Not sensitivity or specificity of an identified test
- Scott H, Brandtzaeg P, Thorsby E et al. Mucosal and systemic immune response patterns in celiac disease. *Ann Allergy* 1983;51(2 Pt 2):233-239. Not sensitivity or specificity of an identified test
- Scott H, Ek J, Havnen J et al. Serum antibodies to dietary antigens: a prospective study of the diagnostic usefulness in celiac disease of children. *Journal of Pediatric Gastroenterology and Nutrition* 1990;11(2):215-220. Not sensitivity or specificity of an identified test
- Scott H, Fausa O, Thorsby E. T-lymphocyte activation by a gluten fraction, glyc-gli. Studies of adult coeliac patients and healthy controls. *Scandinavian Journal of Immunology* 1983;18(3):185-191. Not sensitivity or specificity of an identified test
- Scott H, Fausa O, Ek J et al. Measurements of serum IgA and IgG activities to dietary antigens. A prospective study of the diagnostic usefulness in adult coeliac disease. *Scandinavian Journal of Gastroenterology* 1990;25(3):287-292. Not sensitivity or specificity of an identified test
- Scott H, Hirschberg H, Thorsby E. HLA-DR3- and HLA-DR7-restricted T-cell hyporesponsiveness to gluten antigen: a clue to the aetiology of coeliac disease?. *Scand J Immunol* 1983;18(2):163-167. Not sensitivity or specificity of an identified test
- Scott H, Nilsen E, Sollid L M et al. Immunopathology of gluten-sensitive enteropathy. *Springer Semin Immunopathol* 1997;18(4):535-553. Not sensitivity or specificity of an identified test
- Scott H, Sollid L M, Brandtzaeg P et al. Jejunal epithelium of patients with coeliac disease shows enhanced expression of MHC class II subregion products. *Adv Exp Med Biol* 1988;237:689-693. Not sensitivity or specificity of an identified test
- Scott H, Sollid L M, Fausa O et al. Expression of major histocompatibility complex class II subregion products by

- jejunal epithelium in patients with coeliac disease. *Scandinavian Journal of Immunology* 1987;26(5):563-571. Not sensitivity or specificity of an identified test
- Scully L J, Toze C, Sengar D P S et al. Early-onset autoimmune hepatitis is associated with a C4A gene deletion. *Gastroenterology* 1993;104(5):1478-1484. Not sensitivity or specificity of an identified test
- Seah P P, Fry L, Holborow E J et al. Antireticulin antibody: incidence and diagnostic significance. *Gut* 1973;14(4):311-315. Not sensitivity or specificity of an identified test
- Seah P P, Fry L, Kearney J W et al. A comparison of histocompatibility antigens in dermatitis herpetiformis and adult coeliac disease. *British Journal of Dermatology* 1976;94(2):131-138. Not sensitivity or specificity of an identified test
- Sebus J, Fernandes J, van der et al. A new twin hole capsule for peroral intestinal biopsy in children. *Digestion* 1968;1(4):193-199. Not sensitivity or specificity of an identified test
- Segni M, Pani M A, Pasquino A M et al. Familial clustering of juvenile thyroid autoimmunity: Higher risk is conferred by human leukocyte antigen DR3-DQ2 and thyroid peroxidase antibody status in fathers. *J Clin Endocrinol Metab* 2002;87(8):3779-3782. Not sensitivity or specificity of an identified test
- Seissler J, Boms S, Wohlrab U et al. Antibodies to human recombinant tissue transglutaminase measured by radioligand assay: evidence for high diagnostic sensitivity for coeliac disease. *Hormone and Metabolic Research. Hormon- Und Stoffwechselforschung. Hormones Et Metabolisme* 1999;31(6):375-379. Improper control group
- Seissler J, Wohlrab U, Wuensche C et al. Autoantibodies from patients with coeliac disease recognize distinct functional domains of the autoantigen tissue transglutaminase. *Clinical and Experimental Immunology* 2001;125(2):216-221. Not sensitivity or specificity of an identified test
- Seiving B, Ohlsson K, Linder C et al. Transglutaminase differentiation during maturation of human blood monocytes to macrophages. *European Journal of Haematology* 1991;46(5):263-271. Not sensitivity or specificity of an identified test
- Sela B-A. Homocysteine gets to the brain. *Isr Med Assoc J* 2002;4(3):204-206. Not sensitivity or specificity of an identified test
- Selby R, Barnard J M, Buehler S K et al. Tuberculosis associated with HLA-B8, BfS in a Newfoundland community study. *Tissue Antigens* 1978;11(5):403-408. Not sensitivity or specificity of an identified test
- Selby W. Gluten enteropathy. *Aust Prescr* 2001;24(2):38-40+47. Not sensitivity or specificity of an identified test
- Selby W S, Painter D, Collins A et al. Persistent mucosal abnormalities in coeliac disease are not related to the ingestion of trace amounts of gluten. *Scandinavian Journal of Gastroenterology* 1999;34(9):909-914. Not sensitivity or specificity of an identified test
- Seliger G, Goldman A B, Firooznia H et al. Ulceration of the small intestine complicating celiac disease. *American Journal of Digestive Diseases* 1973;18(9):820-824. Not sensitivity or specificity of an identified test
- Selzer G, Sherman G, Callihan T R et al. Primary small intestinal lymphomas and alpha-heavy-chain disease. A study of 43 cases from a pathology department in Israel. *Israel Journal of Medical Sciences* 1979;15(2):111-123. Not sensitivity or specificity of an identified test
- Semenza G, Bircher J, Mulhaupt E et al. Arbutin absorption in human small intestine: a simple procedure for the determination of active sugar uptake in peroral biopsy specimens. *Clinica Chimica Acta* 1969;International Journal of Clinical Chemistry; 25(2):213-219. Not sensitivity or specificity of an identified test
- Senarath Yapa R S. Coeliac disease in young and old patients. *J Clin Exp Gerontol* 1991;13(3):95-102. Not sensitivity or specificity of an identified test
- Sengar D P S, Goldstein R. Comprehensive typing of DQB1 alleles by PCR-RFLP. *Tissue Antigens* 1994;43(4):242-248. Not sensitivity or specificity of an identified test
- Serebrinsky G, Palermo M, Geffner J et al. Opposite effects of amines on lymphocyte- and monocyte-mediated ADCC. *International Journal of Immunopharmacology* 1988;10(5):555-561. Not sensitivity or specificity of an identified test
- Serjeantson S W, Court J, Mackay I R et al. HLA-DQ genotypes are associated with autoimmunity to glutamic acid decarboxylase in insulin-dependent diabetes mellitus patients. *Human Immunology* 1993;38(2):97-104. Not sensitivity or specificity of an identified test
- Serrano-Rios M, Gutierrez-Lopez M D, Perez-Bravo F et al. HLA-DR, DQ and anti-GAD antibodies in first degree relatives of type I diabetes mellitus. *Diabetes Res Clin Pract* 1996;34(Suppl):S133-S139. Not sensitivity or specificity of an identified test
- Shah V H, Rotterdam H, Kotler D P et al. All that scallops is not celiac disease. *Gastrointestinal Endoscopy* 2000;51(6):717-720. Not sensitivity or specificity of an identified test
- Shahbazkhani B, Forootan M, Merat S et al. Coeliac disease presenting with symptoms of irritable bowel syndrome. *Alimentary Pharmacology & Therapeutics* 2003;18(2):231-235. Not sensitivity or specificity of an identified test

identified test

Shahbazkhani Bijan, Malekzadeh Reza, Sotoudeh Masoud et al. High prevalence of coeliac disease in apparently healthy Iranian blood donors. *European Journal of Gastroenterology & Hepatology* 2003;15(5):475-478. Not sensitivity or specificity of an identified test

Shainoff J R, Urbanic D A. Multicolour immuno-staining of fibrinogen polypeptide chains for identification of their derivatives in electrophoregrams. *Blood Coagulation & Fibrinolysis - an International Journal in Haemostasis and Thrombosis* 1990;1(4-5):479-484. Not sensitivity or specificity of an identified test

Shainoff J R, Urbanic D A, DiBello P M. Immuno-electrophoretic characterizations of the cross-linking of fibrinogen and fibrin by factor XIIIa and tissue transglutaminase. Identification of a rapid mode of hybrid alpha-gamma-chain cross-linking that is promoted by the gamma-chain cross-linking. *Journal of Biological Chemistry* 1991;266(10):6429-6437. Not sensitivity or specificity of an identified test

Shainoff J R, Valenzuela R, Urbanic D A et al. Fibrinogen A alpha and gamma-chain dimers as potential differential indicators of atherosclerotic and thrombotic vascular disease. *Blood Coagulation & Fibrinolysis - an International Journal in Haemostasis and Thrombosis* 1990;1(4-5):499-503. Not sensitivity or specificity of an identified test

Shamir R, Shoenfeld Y, Blank M et al. The prevalence of coeliac disease antibodies in patients with the antiphospholipid syndrome. *Lupus* 2003;12(5):394-399. Not sensitivity or specificity of an identified test

Shamir Raanan, Eliakim Rami, Lahat Nitza et al. ELISA of anti-endomysial antibodies in the diagnosis of celiac disease: comparison with immunofluorescence assay of anti-endomysial antibodies and tissue transglutaminase antibodies. *Israel Medical Association Journal - Imaj* 2002;4(8):594-596. Improper control group

Shamir Raanan, Lerner Aaron, Shinar Eilat et al. The use of a single serological marker underestimates the prevalence of celiac disease in Israel: a study of blood donors. *American Journal of Gastroenterology* 2002;97(10):2589-2594. Not sensitivity or specificity of an identified test

Shan Lu, Molberg Oyvind, Parrot Isabelle et al. Structural basis for gluten intolerance in celiac sprue. *Science* 2002;297(5590):2275-2279. Not sensitivity or specificity of an identified test

Shanahan F, McKenna R, McCarthy C F et al. Coeliac disease and diabetes mellitus: a study of 24 patients with HLA typing. *Quarterly Journal of Medicine* 1982;51(203):329-335. Not sensitivity or specificity of an identified test

Shand A G, Ciclitira P J. Celiac disease. *Clin Perspect*

*Gastroenterol* 2002;5(5):277-283. Not sensitivity or specificity of an identified test

Shaoul R, Marcon M A, Okada Y et al. Gastric metaplasia: a frequently overlooked feature of duodenal biopsy specimens in untreated celiac disease. *Journal of Pediatric Gastroenterology and Nutrition* 2000;30(4):397-403. Not sensitivity or specificity of an identified test

Sheehan N J, Stanton-King K. Polyautoimmunity in a young woman. *British Journal of Rheumatology* 1993;32(3):254-256. Not sensitivity or specificity of an identified test

Sheldon W, Tempany E. Small intestine peroral biopsy in coeliac children. *Gut* 1966;7(5):481-489. Improper control group

Sherman S L. Genetic analysis workshop IV: summary for coeliac disease. *Genetic Epidemiology.Supplement* 1986;1271-276. Not sensitivity or specificity of an identified test

Sherman S L, Iselius L, Ellis A et al. Combined segregation and linkage analysis of coeliac disease. *Genetic Epidemiology.Supplement* 1986;1283-288. Not sensitivity or specificity of an identified test

Sherritt M A, Tait B, Varney M et al. Immunosusceptibility genes in rheumatoid arthritis. *Hum Immunol* 1996;51(1):32-40. Not sensitivity or specificity of an identified test

Sheth K J, Werlin S L, Freeman M E et al. Gastrointestinal structure and function in Fabry's disease. *American Journal of Gastroenterology* 1981;76(3):246-251. Not sensitivity or specificity of an identified test

Shibahara M, Nanko H, Shimizu M et al. Dermatitis herpetiformis in Japan: An update. *Dermatology* 2002;204(1):37-42. Not sensitivity or specificity of an identified test

Shidrawi R G, Ciclitira P J. Celiac disease. *Curr Opin Gastroenterol* 1996;12(2):159-163. Not sensitivity or specificity of an identified test

Shidrawi R G, Day P, Przemioslo R et al. In vitro toxicity of gluten peptides in coeliac disease assessed by organ culture. *Scandinavian Journal of Gastroenterology* 1995;30(8):758-763. Not sensitivity or specificity of an identified test

Shidrawi R G, Parnell N D, Ciclitira P J et al. Binding of gluten-derived peptides to the HLA-DQ2 (alpha1\*0501, beta1\*0201) molecule, assessed in a cellular assay. *Clinical and Experimental Immunology* 1998;111(1):158-165. Not sensitivity or specificity of an identified test

Shidrawi R G, Przemioslo R, Davies D R et al. Pitfalls in diagnosing coeliac disease. *Journal of Clinical Pathology* 1994;47(8):693-694. Improper control group

- Shih J-F, Hunninghake G W, Goeken N E et al. The relationship between HLA-A, B, DQ, and DR antigens and asbestos- induced lung disease. *Chest* 1993;104(1):26-31. Not sensitivity or specificity of an identified test
- Shimizu T, Beijer E, Strandvik B. Leukotriene B4 and C4 metabolism in small intestine mucosa of children with celiac disease. *Journal of Pediatric Gastroenterology and Nutrition* 1995;21(4):426-429. Not sensitivity or specificity of an identified test
- Shimizu T, Beijer E, Ryd W et al. Leukotriene B4 and C4 generation by small intestinal mucosa in children with coeliac disease. *Digestion* 1994;55(4):239-242. Not sensitivity or specificity of an identified test
- Shimoda S S, O'Brien T K, Saunders D R. Fat absorption after infusing bile salts into the human small intestine. *Gastroenterology* 1974;67(1):7-18. Not sensitivity or specificity of an identified test
- Shiner M. Coeliac disease. Electron microscopy of jejunal mucosa. *Clinics in Gastroenterology* 1974;3(1):33-53. Review article
- Shiner M. Ultrastructural changes suggestive of immune reactions in the jejunal mucosa of coeliac children following gluten challenge. *Gut* 1973;14(1):1-12. Not sensitivity or specificity of an identified test
- Shiner M. Ultrastructural features of allergic manifestations in the small intestine of children. *Scandinavian Journal of Gastroenterology. Supplement* 1981;7049-64. Not sensitivity or specificity of an identified test
- Shiner M. Electron microscopy of jejunal mucosa. *Clin Gastroenterol* 1974;3(1):33-53. Not sensitivity or specificity of an identified test
- Shiner M, Shmerling D H. The immunopathology of coeliac disease. *Digestion* 1972;5(2):69-88. Not sensitivity or specificity of an identified test
- Shiner R J, Ballard J. Mucosal secretory IgA and secretory piece in adult coeliac disease. *Gut* 1973;14(10):778-783. Not sensitivity or specificity of an identified test
- Shipman R T, Williams A L, Kay R et al. A family study of coeliac disease. *Australian and New Zealand Journal of Medicine* 1975;5(3):250-255. Not sensitivity or specificity of an identified test
- Shitabata P K, Crouch E C, Fitzgibbon J F et al. Cutaneous sclerotic fibroma. Immunohistochemical evidence of a fibroblastic neoplasm with ongoing type I collagen synthesis. *American Journal of Dermatopathology* 1995;17(4):339-343. Not sensitivity or specificity of an identified test
- Shmakov A N, Bode J, Kilshaw P J et al. Diverse patterns of expression of the 67-kD laminin receptor in human small intestinal mucosa: potential binding sites for prion proteins?. *Journal of Pathology* 2000;191(3):318-322. Not sensitivity or specificity of an identified test
- Shmerling D H, Franckx J. Childhood celiac disease: a long-term analysis of relapses in 91 patients. *Journal of Pediatric Gastroenterology and Nutrition* 1986;5(4):565-569. Not sensitivity or specificity of an identified test
- Shokrgozar M A, Shokri F. HLA-associated antibody response to recombinant hepatitis B vaccine in healthy Iranian adults. *Iran J Med Sci* 1999;24(3-4):98-103. Not sensitivity or specificity of an identified test
- Shtauvere A, Rumba I, Dzivite I et al. HLA-DR and -DQ gene polymorphism in Latvian patients with insulin-dependent diabetes mellitus. *Tissue Antigens* 1998;52(4):385-388. Not sensitivity or specificity of an identified test
- Shtauvere-Brameus A, Dabadghao P, Rumba I et al. Tumor necrosis factor-alpha allele 2 shows an association with insulin-dependent diabetes mellitus in Latvians. *Annals of the New York Academy of Sciences* 2002;958357-361. Not sensitivity or specificity of an identified test
- Shtauvere-Brameus A, Falorni A, Rumba I et al. Islet autoantibodies in Latvian subjects with non-insulin-dependent diabetes mellitus: slow-onset type 1 diabetes or polyendocrine autoimmunity?. *Annals of the New York Academy of Sciences* 2002;958259-262. Not sensitivity or specificity of an identified test
- Shtauvere-Brameus A, Ghaderi M, Rumba I et al. Microsatellite allele 5 of MHC class I chain-related gene a increases the risk for insulin-dependent diabetes mellitus in latvians. *Annals of the New York Academy of Sciences* 2002;958349-352. Not sensitivity or specificity of an identified test
- Shuster S, Watson A J, Marks J. Coeliac syndrome in dermatitis herpetiformis. *Lancet* 1968;1(7552):1101-1106. Not sensitivity or specificity of an identified test
- Sidney John, del Guercio, Marie Southwood et al. The HLA molecules DQA1\*0501/B1\*0201 and DQA1\*0301/B1\*0302 share an extensive overlap in peptide binding specificity. *Journal of Immunology (Baltimore, Md.- 1950)* 2002;169(9):5098-5108. Not sensitivity or specificity of an identified test
- Siebenlist K R, Mosesson M W. Evidence of intramolecular cross-linked A alpha,gamma chain heterodimers in plasma fibrinogen. *Biochemistry* 1996;35(18):5817-5821. Not sensitivity or specificity of an identified test
- Siegel L M, Stevens P D, Lightdale C J et al. Combined magnification endoscopy with chromoendoscopy in the evaluation of patients with suspected malabsorption. *Gastrointestinal Endoscopy* 1997;46(3):226-230. Not sensitivity or specificity of an identified test

Signer E, Burgin-Wolff A, Berger R et al. Antibodies to gliadin as a screening test for coeliac disease. A prospective study. *Helvetica Paediatrica Acta* 1979;34(1):41-52. Serology <1990

Signore A, Chianelli M, Annovazzi A et al. Imaging active lymphocytic infiltration in coeliac disease with iodine-123-interleukin-2 and the response to diet. *European Journal of Nuclear Medicine* 2000;27(1):18-24. Not sensitivity or specificity of an identified test

Sigurs N, Johansson C, Elfstrand P O et al. Prevalence of coeliac disease in diabetic children and adolescents in Sweden. *Acta Paediatrica (Oslo, Norway - 1992)* 1993;82(9):748-751. Not sensitivity or specificity of an identified test

Silink M. How should we manage celiac disease in childhood diabetes?. *Pediatr Diabetes* 2001;2(3):95-97. Not sensitivity or specificity of an identified test

Silk D B A, Kumar P J, Perrett D. Amino acid and peptide absorption in patients with coeliac disease and dermatitis herpetiformis. *Gut* 1974;15(1):1-8. Not sensitivity or specificity of an identified test

Silk D B A, Kumar P J, Webb J P W. Ileal function in patients with untreated adult coeliac disease. *Gut* 1975;16(4):261-267. Not sensitivity or specificity of an identified test

Siltanen Mirjami, Kajosaari Merja, Savilahti Emma M et al. IgG and IgA antibody levels to cow's milk are low at age 10 years in children born preterm. *Journal of Allergy and Clinical Immunology* 2002;110(4):658-663. Not sensitivity or specificity of an identified test

Silva E M, Fernandes M I, Galvao L C et al. Human leukocyte antigen class II alleles in white Brazilian patients with celiac disease. *Journal of Pediatric Gastroenterology and Nutrition* 2000;31(4):391-394. Improper control group

Silva L M, Donadi E A. Is immunogenetic susceptibility to neuropsychiatric systemic lupus erythematosus (SLE) different from non-neuropsychiatric SLE?. *Ann Rheum Dis* 1996;55(8):544-547. Not sensitivity or specificity of an identified test

Silverman J S, Tamsen A. Mammary fibroadenoma and some phyllodes tumour stroma are composed of CD34+ fibroblasts and factor XIIIa+ dendrophages. *Histopathology* 1996;29(5):411-419. Not sensitivity or specificity of an identified test

Silvestris F, Anderson W, Goodwin J S et al. Discrepancy in the expression of autoantibodies in healthy aged individuals. *Clin Immunol Immunopathol* 1985;35(2):234-244. Not sensitivity or specificity of an identified test

Simon M, Green H. Participation of membrane-associated proteins in the formation of the cross-linked envelope of

the keratinocyte. *Cell* 1984;36(4):827-834. Not sensitivity or specificity of an identified test

Simon M, Haftek M, Sebbag M et al. Evidence that filaggrin is a component of cornified cell envelopes in human plantar epidermis. *Biochemical Journal* 1996;317(Pt 1):173-177. Not sensitivity or specificity of an identified test

Simpson F G, Bullen A W, Robertson D A et al. HLA-B8 and cell-mediated immunity to gluten. *Gut* 1981;22(8):633-636. Not sensitivity or specificity of an identified test

Simpson F G, Howdle P D, Robertson D A et al. Jejunal biopsy and lymphocyte co-culture in coeliac disease. *Scandinavian Journal of Gastroenterology* 1983;18(6):749-754. Not sensitivity or specificity of an identified test

Simu G, Jung J, Vojth V et al. Microscopic observations concerning the autoimmune response escalation into malignant lymphoma. *Morphologie Et Embryologie* 1986;32(2):99-104. Not sensitivity or specificity of an identified test

Sinclair D, Pearce C B, Saas M S L et al. A comparative study of tissue transglutaminase antibodies and endomysium antibody immunofluorescence in routine clinical laboratory practice. *Ann Clin Biochem* 2003;40(4):411-416. Improper control group

Singer M A, Hortsch M, Goodman C S et al. Annulin, a protein expressed at limb segment boundaries in the grasshopper embryo, is homologous to protein cross-linking transglutaminases. *Dev Biol* 1992;154(1):143-159. Not sensitivity or specificity of an identified test

Singer Steven M, Zainelli Gina M, Norlund Maryam A et al. Transglutaminase bonds in neurofibrillary tangles and paired helical filament tau early in Alzheimer's disease. *Neurochemistry International* 2002;40(1):17-30. Not sensitivity or specificity of an identified test

Singh U S, Cerione R A. Biochemical effects of retinoic acid on GTP-binding Protein/Transglutaminases in HeLa cells. Stimulation of GTP-binding and transglutaminase activity, membrane association, and phosphatidylinositol lipid turnover. *Journal of Biological Chemistry* 1996;271(44):27292-27298. Not sensitivity or specificity of an identified test

Singh U S, Erickson J W, Cerione R A. Identification and biochemical characterization of an 80 kilodalton GTP-binding/transglutaminase from rabbit liver nuclei. *Biochemistry* 1995;34(48):15863-15871. Not sensitivity or specificity of an identified test

Singh U S, Kunar M T, Kao Y L et al. Role of transglutaminase II in retinoic acid-induced activation of RhoA-associated kinase-2. *Embo Journal* 2001;20(10):2413-2423. Not sensitivity or specificity of an identified test

- Singh U S, Li Q, Cerione R. Identification of the eukaryotic initiation factor 5A as a retinoic acid-stimulated cellular binding partner for tissue transglutaminase II. *Journal of Biological Chemistry* 1998;273(4):1946-1950. Not sensitivity or specificity of an identified test
- Singh Ugra S, Pan Jing, Kao Yu et al. Tissue transglutaminase mediates activation of RhoA and MAP kinase pathways during retinoic acid-induced neuronal differentiation of SH-SY5Y cells. *Journal of Biological Chemistry* 2002;278(1):391-399. Not sensitivity or specificity of an identified test
- Sinnott P J, Livieri C, Sampietro M et al. CYP21/C4 gene organisation in Italian 21-hydroxylase deficiency families. *Hum Genet* 1992;88(5):545-551. Not sensitivity or specificity of an identified test
- Sipos A, Csontos C, Sipka S et al. The antigen/receptor specificity of antigranulocyte antibodies in patients with SLE. *Immunology Letters* 1988;19(4):329-334. Not sensitivity or specificity of an identified test
- Sizemore N, Kasturi L, Gorodeski G et al. Retinoid regulation of human ectocervical epithelial cell transglutaminase activity and keratin gene expression. *Differentiation* 1993;Research in Biological Diversity; 54(3):219-225. Not sensitivity or specificity of an identified test
- Sjoberg K, Eriksson S. Regional differences in coeliac disease prevalence in Scandinavia?. *Scandinavian Journal of Gastroenterology* 1999;34(1):41-45. Not sensitivity or specificity of an identified test
- Sjoberg K, Alm R, Ivarsson S A et al. Prevalence and clinical significance of gliadin antibodies in healthy children and adults. *Scandinavian Journal of Gastroenterology* 1994;29(3):248-254. Improper control group
- Sjoberg K, Eriksson K F, Bredberg A et al. Screening for coeliac disease in adult insulin-dependent diabetes mellitus. *Journal of Internal Medicine* 1998;243(2):133-140. Not sensitivity or specificity of an identified test
- Sjoberg K, Eriksson S, Tenggart B et al. Factor XIII and tissue transglutaminase antibodies in coeliac and inflammatory bowel disease. *Autoimmunity* 2002;35(5):357-364. Not sensitivity or specificity of an identified test
- Sjoberg K, Lindgren S, Eriksson S. Frequent occurrence of non-specific gliadin antibodies in chronic liver disease. Endomysial but not gliadin antibodies predict coeliac disease in patients with chronic liver disease. *Scandinavian Journal of Gastroenterology* 1997;32(11):1162-1167. Not sensitivity or specificity of an identified test
- Sjoberg K, Wassmuth R, Reichstetter S et al. Gliadin antibodies in adult insulin-dependent diabetes--autoimmune and immunogenetic correlates. *Autoimmunity* 2000;32(4):217-228. Not sensitivity or specificity of an identified test
- Sjolund K, Ekman R. Plasma motilin in untreated coeliac disease. *Peptides* 2003;24(3):483-486. Not sensitivity or specificity of an identified test
- Sjolund K, Alumets J, Berg N O et al. Duodenal endocrine cells in adult coeliac disease. *Gut* 1979;20(7):547-552. Not sensitivity or specificity of an identified test
- Sjolund K, Alumets J, Berg N O et al. Enteropathy of coeliac disease in adults: increased number of enterochromaffin cells the duodenal mucosa. *Gut* 1982;23(1):42-48. Not sensitivity or specificity of an identified test
- Sjolund K, Hakanson R, Lundqvist G et al. Duodenal somatostatin in coeliac disease. *Scandinavian Journal of Gastroenterology* 1982;17(8):969-976. Not sensitivity or specificity of an identified test
- Sjostrom H, Lundin K E, Molberg O et al. Identification of a gliadin T-cell epitope in coeliac disease: general importance of gliadin deamidation for intestinal T-cell recognition. *Scandinavian Journal of Immunology* 1998;48(2):111-115. Not sensitivity or specificity of an identified test
- Sjostrom H, Noren O, Krasilnikoff P A et al. Intestinal peptidases and sucrase in coeliac disease. *Clin Chim Acta* 1981;109(1):53-58. Not sensitivity or specificity of an identified test
- Skeen M B. Neurologic manifestations of gastrointestinal disease. *Neurol Clin* 2002;20(1):195-225. Not sensitivity or specificity of an identified test
- Skerritt J H, Devery J M, Penttila I A et al. Cellular and humoral responses in coeliac disease. 2. Protein extracts from different cereals. *Clinica Chimica Acta* 1991;International Journal of Clinical Chemistry; 204(1-3):109-122. Not sensitivity or specificity of an identified test
- Skoglosa J, Falth-Magnusson K, Stenhammar L. Conscious or deep sedation: a questionnaire regarding the experience of parents, children and staff during small bowel biopsy. *Acta Paediatrica (Oslo, Norway - 1992)* 2003;92(6):704-708. Not sensitivity or specificity of an identified test
- Skovbjerg H, Sjostrom H, Noren O B. Coeliac disease - A diagnostic and scientific challenge. *Ugeskr Laeg* 2002;164(25):3329-3333. Not sensitivity or specificity of an identified test
- Slavin G, Sowter C, Robertson K et al. Measurement in jejunal biopsies by computer-aided microscopy. *Journal of Clinical Pathology* 1980;33(3):254-261. Not sensitivity or specificity of an identified test
- Slavin R G, Hutcheson P S, Chauhan B et al. New insights

- into the pathogenesis of allergic bronchopulmonary aspergillosis. *Allergy Clin Immunol Int* 2003;15(2):79-81. Not sensitivity or specificity of an identified test
- Slavutsky I, Gomez J C, Pedreira S et al. Increased rDNA transcriptional activity in celiac disease. *Journal of Clinical Gastroenterology* 1992;14(1):11-14. Not sensitivity or specificity of an identified test
- Sleisenger M H, Brandborg L L. Malabsorption. *Major Problems in Internal Medicine* 1977;13v-x,1-261. Not sensitivity or specificity of an identified test
- Smecuol E, Bai J C, Vazquez H et al. Gastrointestinal permeability in celiac disease. *Gastroenterology* 1997;112(4):1129-1136. Not sensitivity or specificity of an identified test
- Smecuol E, Vazquez H, Sugai E et al. Sugar tests detect celiac disease among first-degree relatives. *American Journal of Gastroenterology* 1999;94(12):3547-3552. Not sensitivity or specificity of an identified test
- Smethurst P A, Griffin M. Measurement of tissue transglutaminase activity in a permeabilized cell system: its regulation by Ca<sup>2+</sup> and nucleotides. *Biochemical Journal* 1996;313(Pt 3):803-808. Not sensitivity or specificity of an identified test
- Smith A D, Bagheri B, Streilein R D et al. Expression of interleukin-4 and interferon-gamma in the small bowel of patients with dermatitis herpetiformis and isolated gluten-sensitive enteropathy. *Digestive Diseases and Sciences* 1999;44(10):2124-2132. Not sensitivity or specificity of an identified test
- Smith K, Mezebish D, Williams J P et al. Cutaneous epithelioid schwannomas: A rare variant of a benign peripheral nerve sheath tumor. *J Cutaneous Pathol* 1998;25(1):50-55. Not sensitivity or specificity of an identified test
- Smith M E, Costa M J, Weiss S W. Evaluation of CD68 and other histiocytic antigens in angiomatoid malignant fibrous histiocytoma. *American Journal of Surgical Pathology* 1991;15(8):757-763. Not sensitivity or specificity of an identified test
- Smith S. Jejunal biopsy--seeking an alternative. *Paediatric Nursing* 1996;8(4):17-19. Not sensitivity or specificity of an identified test
- Smith S E, Littlewood J M. The two-film barium meal in the exclusion of coeliac disease. *Clinical Radiology* 1977;28(6):629-634. Not sensitivity or specificity of an identified test
- Smoller B R, Apfelberg D B. Infantile (juvenile) capillary hemangioma: a tumor of heterogeneous cellular elements. *Journal of Cutaneous Pathology* 1993;20(4):330-336. Not sensitivity or specificity of an identified test
- Smyth C, Kelleher D, Keeling P W N. Hepatic manifestations of gastrointestinal diseases inflammatory bowel disease, Celiac disease, and Whipple's disease. *Clin Liver Dis* 2002;6(4):1013-1032. Not sensitivity or specificity of an identified test
- Snijders A, Elferink D G, Geluk A et al. An HLA-DRB1-derived peptide associated with protection against rheumatoid arthritis is naturally processed by human APCsS<sub>UP1</sub>. *J Immunol* 2001;166(8):4987-4993. Not sensitivity or specificity of an identified test
- Sobel J H, Trakht I, Wu H Q et al. Alpha-Chain cross-linking in fibrin(ogen) Marburg. *Blood* 1995;86(3):989-1000. Not sensitivity or specificity of an identified test
- Solheim B G, Ek J, Thune P O et al. HLA antigens in dermatitis herpetiformis and coeliac disease. *Tissue Antigens* 1976;7(1):57-59. Not sensitivity or specificity of an identified test
- Sollid L M. Molecular basis of celiac disease. *Annual Review of Immunology* 2000;18:53-81. Not sensitivity or specificity of an identified test
- Sollid L M. Genetics of the immune response to gluten in coeliac disease. *Digestive Diseases (Basel, Switzerland)* 1998;16(6):345-347. Review article
- Sollid L M. Breast milk against coeliac disease. *Gut* 2002;51(6):767-768. Not sensitivity or specificity of an identified test
- Sollid L M, Lundin K E. Coeliac disease. An inappropriate immune response. *Lancet* 2001;358(Suppl):s13 Not sensitivity or specificity of an identified test
- Sollid L M, Scott H. New tool to predict celiac disease on its way to the clinics. *Gastroenterology* 1998;115(6):1584-1586. Not sensitivity or specificity of an identified test
- Sollid L M, Thorsby E. The primary association of celiac disease to a given HLA-DQ alpha/beta heterodimer explains the divergent HLA-DR associations observed in various Caucasian populations. *Tissue Antigens* 1990;36(3):136-137. Not sensitivity or specificity of an identified test
- Sollid L M, Thorsby E. HLA susceptibility genes in celiac disease: genetic mapping and role in pathogenesis. *Gastroenterology* 1993;105(3):910-922. Review article
- Sollid L M, Markussen G, Ek J et al. Evidence for a primary association of celiac disease to a particular HLA-DQ alpha/beta heterodimer. *Journal of Experimental Medicine* 1989;169(1):345-350. Improper control group
- Sollid L M, McAdam S N, Molberg O et al. Genes and environment in celiac disease. *Acta Odontologica Scandinavica* 2001;59(3):183-186. Not sensitivity or specificity of an identified test

- Sollid L M, Molberg O, McAdam S et al. Autoantibodies in coeliac disease: tissue transglutaminase--guilt by association?. *Gut* 1997;41(6):851-852. Not sensitivity or specificity of an identified test
- Sollid L M, Scott H, Kolberg J et al. Serum antibodies to wheat germ agglutinin and gluten in patients with dermatitis herpetiformis. *Archives of Dermatological Research* 1986;278(6):433-436. Not sensitivity or specificity of an identified test
- Sollid L, Bruserud O, Gaudernack G et al. The role of the CD8-positive subset of T cells in proliferative responses to soluble antigens. I. Studies of healthy subjects, type 1 diabetics, and coeliac disease patients. *Scandinavian Journal of Immunology* 1986;23(4):461-467. Not sensitivity or specificity of an identified test
- Sollid L, Scott H, Thorsby E. Suppressor-cell activity in coeliac disease. *Lancet* 1985;1(8422):229-230. Not sensitivity or specificity of an identified test
- Sollid Ludvig M. Coeliac disease: dissecting a complex inflammatory disorder. *Nature Reviews.Immunology* 2002;2(9):647-655. Not sensitivity or specificity of an identified test
- Soltoft J. Immunoglobulin-containing cells in non-tropical sprue. *Clinical and Experimental Immunology* 1970;6(3):413-420. Not sensitivity or specificity of an identified test
- Soltoft J, Weeke B. Immunoglobulins in serum and jejunal biopsies in non-tropical sprue. *Acta Medica Scandinavica* 1969;186(5):459-464. Not sensitivity or specificity of an identified test
- Song Y C, Sheng D, Taubenfeld S M et al. A microtiter assay for factor XIII using fibrinogen and biotinylcadaverine as substrates. *Analytical Biochemistry* 1994;223(1):88-92. Not sensitivity or specificity of an identified test
- Song Y, Taubenfeld S M, Sheng D et al. Characterization of a monoclonal antibody directed against the carboxyl-terminus of human factor XIII. An epitope exposed upon denaturation and conserved across species lines. *Thrombosis and Haemostasis* 1994;71(1):62-67. Not sensitivity or specificity of an identified test
- Sorell L, Garrote J A, Acevedo B et al. One-step immunochromatographic assay for screening of coeliac disease. *Lancet* 2002;359(9310):945-946. Improper control group
- Soresi M, Amplo M, Agliastro R et al. Screening for autoantibodies to tissue transglutaminase reveals a low prevalence of coeliac disease in blood donors with cryptogenic hypertransaminasemia. *Digestion* 2001;64(2):87-91. Not sensitivity or specificity of an identified test
- Sorg C, Michels E, Malorny U et al. Migration inhibitory factors and macrophage differentiation. *Springer Seminars in Immunopathology* 1984;7(4):311-320. Not sensitivity or specificity of an identified test
- Sottrup-Jensen L, Stepanik T M, Kristensen T. Primary structure of human alpha<sub>2</sub>-macroglobulin. V. The complete structure. *J Biol Chem* 1984;259(13):8318-8327. Not sensitivity or specificity of an identified test
- Souroujon M, Ashkenazi A, Lupo M et al. Serum ferritin levels in coeliac disease. *American Journal of Clinical Pathology* 1982;77(1):82-86. Not sensitivity or specificity of an identified test
- Spencer J, MacDonald T T, Diss T C et al. Changes in intraepithelial lymphocyte subpopulations in coeliac disease and enteropathy associated T cell lymphoma (malignant histiocytosis of the intestine). *Gut* 1989;30(3):339-346. Not sensitivity or specificity of an identified test
- Spiekerkoetter U, Seissler J, Wendel U. General screening for coeliac disease is advisable in children with type 1 diabetes. *Hormone and Metabolic Research.Hormon- Und Stoffwechselforschung.Hormones Et Metabolisme* 2002;34(4):192-195. Not sensitivity or specificity of an identified test
- Spurkland A, Ingvarsson G, Falk E S et al. Dermatitis herpetiformis and coeliac disease are both primarily associated with the HLA-DQ (alpha 1\*0501, beta 1\*02) or the HLA-DQ (alpha 1\*03, beta 1\*0302) heterodimers. *Tissue Antigens* 1997;49(1):29-34. Improper control group
- Spurkland A, Sollid L M, Polanco I et al. HLA-DR and -DQ genotypes of coeliac disease patients serologically typed to be non-DR3 or non-DR5/7. *Human Immunology* 1992;35(3):188-192. Not sensitivity or specificity of an identified test
- Spurkland A, Sollid L M, Ronningen K S et al. Susceptibility to develop coeliac disease is primarily associated with HLA-DQ alleles. *Human Immunology* 1990;29(3):157-165. Improper control group
- Srinivasan U, Jones E, Weir D G et al. Lactase enzyme, detected immunohistochemically, is lost in active coeliac disease, but unaffected by oats challenge. *American Journal of Gastroenterology* 1999;94(10):2936-2941. Not sensitivity or specificity of an identified test
- Stachowski J, Kramer J, Fust G et al. Relationship between the reactivity to hepatitis B virus vaccination and the frequency of MHC class I, II and III alleles in haemodialysis patients. *Scand J Immunol* 1995;42(1):60-65. Not sensitivity or specificity of an identified test
- Stachowski J, Pollok M, Barth C et al. Non-responsiveness to hepatitis B vaccination in haemodialysis patients: Association with impaired TCR/CD3 antigen receptor expression regulating co-stimulatory processes in antigen

- presentation and recognition. *Nephrol Dial Transplant* 1994;9(2):144-152. Not sensitivity or specificity of an identified test
- Stahlberg M R, Savilahti E, Viander M. Antibodies to gliadin by ELISA as a screening test for childhood celiac disease. *Journal of Pediatric Gastroenterology and Nutrition* 1986;5(5):726-729. Serology <1990
- Stallmach A, Belitz H D, Gellermann B et al. Effects of gliadin peptides B1-B4 in celiac disease. I. Organ culture studies. *Journal of Pediatric Gastroenterology and Nutrition* 1987;6(3):335-340. Not sensitivity or specificity of an identified test
- Stancu M, De Petris G, Palumbo T P et al. Collagenous gastritis associated with lymphocytic gastritis and celiac disease. *Arch Pathol Lab Med* 2001;125(12):1579-1584. Not sensitivity or specificity of an identified test
- Stankovic I, Miletic I, Djordjevic B. Determination of anti-secalin antibodies in sera from coeliac patients by ELISA-based assay. *J Pharm Biomed Anal* 1998;18(1-2):255-261. Not sensitivity or specificity of an identified test
- Stark H J, Baur M, Breitreutz D et al. Organotypic keratinocyte cocultures in defined medium with regular epidermal morphogenesis and differentiation. *Journal of Investigative Dermatology* 1999;112(5):681-691. Not sensitivity or specificity of an identified test
- Stark K L, Harris C, Juchau M R. Embryotoxicity elicited by inhibition of gamma-glutamyltransferase by acivicin and transferase antibodies in cultured rat embryos. *Toxicol Appl Pharmacol* 1987;89(1):88-96. Not sensitivity or specificity of an identified test
- Staun M, Jarnum S. Measurement of the 10,000-molecular weight calcium-binding protein in small-intestinal biopsy specimens from patients with malabsorption syndromes. *Scandinavian Journal of Gastroenterology* 1988;23(7):827-832. Not sensitivity or specificity of an identified test
- Steele J C, Young S P, Goodall J C et al. Structural aspects of the interaction between heterogeneic human papillomavirus type 1 E4-specific T cell receptors and the same peptide/HLA- DQ8 complex. *J Immunol* 1998;161(9):4745-4752. Not sensitivity or specificity of an identified test
- Steele R J C, Brown M, Eremin O. Characterisation of macrophages infiltrating human mammary carcinomas. *Br J Cancer* 1985;51(1):135-138. Not sensitivity or specificity of an identified test
- Steffan J S, Thompson L M. Targeting aggregation in the development of therapeutics for the treatment of Huntington's disease and other polyglutamine repeat diseases. *Expert Opin Ther Targets* 2003;7(2):201-213. Not sensitivity or specificity of an identified test
- Steinert P M, Marekov L N. Initiation of assembly of the cell envelope barrier structure of stratified squamous epithelia. *Molecular Biology of the Cell* 1999;10(12):4247-4261. Not sensitivity or specificity of an identified test
- Stene L C, Magnus P, Ronningen K S et al. Diabetes-associated HLA-DQ genes and birth weight. *Diabetes* 2001;50(12):2879-2882. Not sensitivity or specificity of an identified test
- Stenhammar L. Transient gastro-intestinal disorders during infancy and early childhood. A follow-up study with special reference to coeliac disease. *Acta Paediatrica Scandinavica* 1981;70(3):383-387. Not sensitivity or specificity of an identified test
- Stenhammar L, Johansson C G. The incidence of coeliac disease in children in south-east Sweden. *Acta Paediatrica Scandinavica* 1981;70(3):379-381. Not sensitivity or specificity of an identified test
- Stenhammar L, Ascher H, Danielsson L et al. Small bowel biopsy in Swedish paediatric clinics. *Acta Paediatrica (Oslo, Norway - 1992)* 2002;91(10):1126-1129. Not sensitivity or specificity of an identified test
- Stenhammar L, Brandt A, Wagermark J. A family study of coeliac disease. *Acta Paediatr Scand* 1982;71(4):625-628. Not sensitivity or specificity of an identified test
- Stenhammar L, Fallstrom S P, Jansson G et al. Coeliac disease in children of short stature without gastrointestinal symptoms. *European Journal of Pediatrics* 1986;145(3):185-186. Not sensitivity or specificity of an identified test
- Stenhammar L, FalthMagnusson K, Jansson G et al. Intestinal permeability to inert sugars and different-sized polyethyleneglycols in children with celiac disease. *Journal of Pediatric Gastroenterology and Nutrition* 1989;9(3):281-289. Not sensitivity or specificity of an identified test
- Stenhammar L, Kilander A F, Nilsson L A et al. Serum gliadin antibodies for detection and control of childhood coeliac disease. *Acta Paediatrica Scandinavica* 1984;73(5):657-663. Serology <1990
- Stenhammar L, Stromberg L, Kilander A F et al. Plasma enteroglucagon in the control of childhood celiac disease. *Journal of Pediatric Gastroenterology and Nutrition* 1985;4(2):325-330. Not sensitivity or specificity of an identified test
- Stenhammar L, Warngard O, Lewander P et al. Oral versus intravenous premedication for small bowel biopsy in children: effect on procedure and fluoroscopy times. *Acta Paediatrica (Oslo, Norway - 1992)* 1993;82(1):49-51. Not sensitivity or specificity of an identified test
- Stenling R, Fredrikzon B, Engberg S et al. Surface ultrastructure of the small intestine mucosa in children with celiac disease. I. Untreated disease and effects of long-term gluten elimination and challenge. *Ultrastructural Pathology*

- 1984;6(4):295-305. Not sensitivity or specificity of an identified test
- Stern M. Comparative evaluation of serologic tests for celiac disease: a European initiative toward standardization. *Journal of Pediatric Gastroenterology and Nutrition* 2000;31(5):513-519. Improper control group
- Stern M. Concepts in coeliac disease: is there a receptor for gliadin?. *Klinische Padiatrie* 1985;197(4):349-354. Not sensitivity or specificity of an identified test
- Stern M, Dietrich R. Gliadin- and immunoglobulin-containing cells of small intestinal lamina propria in childhood coeliac disease. *European Journal of Pediatrics* 1982;139(1):13-17. Not sensitivity or specificity of an identified test
- Stern M, Bender S W, Gruttner R et al. Serum antibodies against gliadin and reticulins in a family study of coeliac disease. *European Journal of Pediatrics* 1980;135(1):31-36. Not sensitivity or specificity of an identified test
- Stern M, Dietrich R, Muller J. Small intestinal mucosa in coeliac disease and cow's milk protein intolerance: morphometric and immunofluorescent studies. *European Journal of Pediatrics* 1982;139(2):101-105. Not sensitivity or specificity of an identified test
- Stern M, Fischer K, Gruettner R. Gliadin antibodies in coeliac disease. *Acta Paediatr Belg* 1977;30(4):252 Not sensitivity or specificity of an identified test
- Stern M, Fischer K, Gruttner R. Immunofluorescent serum gliadin antibodies in children with coeliac disease and various malabsorptive disorders. II. Specificity of Gliadin antibodies: immunoglobulin classes, immunogenic properties of wheat protein fractions, and pathogenic significance of food antibodies in coeliac disease. *European Journal of Pediatrics* 1979;130(3):165-172. Serology <1990
- Stern M, Fischer K, Gruttner R. Immunofluorescent serum gliadin antibodies in children with coeliac disease and various malabsorptive disorders. I. Technique, clinical evaluation and diagnostic use of a gliadin antibody assay using pyruvic aldehyde-treated human red cells. *European Journal of Pediatrics* 1979;130(3):155-164. Serology <1990
- Stern M, Teuscher M, Wechmann T. Serological screening for coeliac disease: methodological standards and quality control. *Acta paediatrica (Oslo, Norway : 1992).Supplement.* 1996;41249-51. Improper control group
- Stevens F M. Endoscopic dye-spraying in the diagnosis of coeliac disease. *Acta Endosc* 1978;8(3):173-180. Not sensitivity or specificity of an identified test
- Stevens F M, Hitchcock H T. Farmer's lung disease and coeliac disease: A prospective study. *Ir J Med Sci* 1977;146(10):335-339. Not sensitivity or specificity of an identified test
- Stevens F M, McCarthy C F. The endoscopic demonstration of coeliac disease. *Endoscopy* 1976;8(4):177-180. Not sensitivity or specificity of an identified test
- Stevens F M, Kearns M C, McCarthy C F. Abnormal pancreolauryl tests in coeliac disease: lack of correlation with the degree of intestinal mucosal damage. *Journal of Clinical Pathology* 1997;50(12):1001-1004. Not sensitivity or specificity of an identified test
- Stevens F M, Lloyd R S, Geraghty S M et al. Schizophrenia and coeliac disease--the nature of the relationship. *Psychological Medicine* 1977;7(2):259-263. Not sensitivity or specificity of an identified test
- Stevens F M, Lloyd R, Egan-Mitchell B et al. Proceedings: Antireticulin antibodies in coeliacs and their relatives. *Gut* 1973;14(10):829 Not sensitivity or specificity of an identified test
- Stevens F M, Lloyd R, Egan-Mitchell B et al. Reticulin antibodies in patients with coeliac disease and their relatives. *Gut* 1975;16(8):598-602. Not sensitivity or specificity of an identified test
- Stevens H Y, Reeve J, Noble B S. Bcl-2, tissue transglutaminase and p53 protein expression in the apoptotic cascade in ribs of premature infants. *Journal of Anatomy* 2000;196(Pt 2):181-191. Not sensitivity or specificity of an identified test
- Stewart J. Child coeliacs in adult life. *Ir Med J* 1974;67(15):411-414. Not sensitivity or specificity of an identified test
- Stewart J S. Clinical and morphologic response to gluten withdrawal. *Clinics in Gastroenterology* 1974;3(1):109-126. Not sensitivity or specificity of an identified test
- Stewart J S, Pollock D J, Hoffbrand A V et al. A study of proximal and distal intestinal structure and absorptive function in idiopathic steatorrhea. *Quarterly Journal of Medicine* 1967;36(143):425-444. Not sensitivity or specificity of an identified test
- Stewart W W, Kerr M A. The measurement of respiratory burst induced in polymorphonuclear neutrophils by IgA and IgG anti-gliadin antibodies isolated from coeliac serum. *Immunology* 1991;73(4):491-497. Not sensitivity or specificity of an identified test
- Stockmann A, Hess S, Declerck P et al. Multimeric vitronectin. Identification and characterization of conformation-dependent self-association of the adhesive protein. *Journal of Biological Chemistry* 1993;268(30):22874-22882. Not sensitivity or specificity of an identified test
- Stokes P L, Holmes G K T. Malignancy. *Clin Gastroenterol* 1974;3(1):159-170. Not sensitivity or specificity of an identified test

Stokes P L, Asquith P, Cooke W T. Genetics of coeliac disease. *Clin Gastroenterol* 1973;2(3):547-556. Not sensitivity or specificity of an identified test

Stokes P L, Asquith P, Holmes G K et al. Inheritance and influence of histocompatibility (HL-A) antigens in adult coeliac disease. *Gut* 1973;14(8):627-630. Not sensitivity or specificity of an identified test

Stokes P L, Ferguson R, Holmes G K et al. Familial aspects of coeliac disease. *Quarterly Journal of Medicine* 1976;45(180):567-582. Not sensitivity or specificity of an identified test

Stokes P L, Holmes G K, Smits B J. Immunoglobulin levels in families with coeliac disease. *Lancet* 1972;2(7777):608. Not sensitivity or specificity of an identified test

Stone O J. Dermatitis herpetiformis and gluten sensitive enteropathy (including celiac disease)--increased subepithelial extracellular matrix viscosity due to gliadin. *Medical Hypotheses* 1990;33(4):283-288. Not sensitivity or specificity of an identified test

Storm W. Prevalence and diagnostic significance of gliadin antibodies in children with Down syndrome. *European Journal of Pediatrics* 1990;149(12):833-834. Not sensitivity or specificity of an identified test

Storsrud S, Olsson M, Arvidsson Lenner R et al. Adult coeliac patients do tolerate large amounts of oats. *European Journal of Clinical Nutrition* 2003;57(1):163-169. Not sensitivity or specificity of an identified test

Straumfors A, Johansen B H, Vartdal F et al. A peptide-binding assay for the disease-associated HLA-DQ8 molecule. *Scandinavian Journal of Immunology* 1998;47(6):561-567. Not sensitivity or specificity of an identified test

Streb H, Posselt H G, Wolter K et al. Aldolase activities of the small intestinal mucosa in malabsorption states and hereditary fructose intolerance. *European Journal of Pediatrics* 1981;137(1):5-10. Not sensitivity or specificity of an identified test

Strobel S, Brydon W G, Ferguson A. Cellobiose/mannitol sugar permeability test complements biopsy histopathology in clinical investigation of the jejunum. *Gut* 1984;25(11):1241-1246. Not sensitivity or specificity of an identified test

Strobel S, Busuttill A, Ferguson A. Human intestinal mucosal mast cells: expanded population in untreated coeliac disease. *Gut* 1983;24(3):222-227. Unable to extract data

Strober W. Genetic and anthropologic factors in gluten-sensitive enteropathy. *American Journal of Physical Anthropology* 1983;62(1):119-126. Not sensitivity or

specificity of an identified test

Strober W. Gluten-sensitive enteropathy. *Clinics in Gastroenterology* 1976;5(2):429-452. Not sensitivity or specificity of an identified test

Strober W, Falchuk Z M, Rogentine G N et al. The pathogenesis of gluten-sensitive enteropathy. *Annals of Internal Medicine* 1975;83(2):242-256. Not sensitivity or specificity of an identified test

Strocchi A, Corazza G, Furne J et al. Measurements of the jejunal unstirred layer in normal subjects and patients with celiac disease. *American Journal of Physiology* 1996;270(3 Pt 1):G487-G491. Not sensitivity or specificity of an identified test

Strupp M. The humoral response in the pathogenesis of "gluten ataxia". *J Neurol* 2002;249(6):791-792. Not sensitivity or specificity of an identified test

Stuart B M, Gent A E. Atrophy of the coeliac mucosa. *European Journal of Gastroenterology & Hepatology* 1998;10(6):523-525. Not sensitivity or specificity of an identified test

Stuber E, Buschenfeld A, Luttges J et al. The expression of OX40 in immunologically mediated diseases of the gastrointestinal tract (celiac disease, Crohn's disease, ulcerative colitis). *Eur J Clin Invest* 2000;30(7):594-599. Not sensitivity or specificity of an identified test

Stuber Eckhard, Noth Rainer, Dirks Maren et al. The role of tissue transglutaminase (transglutaminase type II) for the intestinal manifestations of murine semi-allogenic graft-versus-host disease. *Journal of Autoimmunity* 2002;18(1):1-8. Not sensitivity or specificity of an identified test

Stulik J, Hernychova L, Porkertova S et al. Identification of new celiac disease autoantigens using proteomic analysis. *Proteomics* 2003;3(6):951-956. Not sensitivity or specificity of an identified test

Sturgess R, Ciclitira P J. Pathogenesis and pathophysiology of celiac disease. *Curr Opin Gastroenterol* 1993;9(2):242-245. Not sensitivity or specificity of an identified test

Sturgess R P, Hooper L B, Spencer J et al. Effects of interferon-gamma and tumour necrosis factor-alpha on epithelial HLA class-II expression on jejunal mucosal biopsy specimens cultured in vitro. *Scandinavian Journal of Gastroenterology* 1992;27(11):907-911. Not sensitivity or specificity of an identified test

Sturgess R P, Macartney J C, Makgoba M W et al. Differential upregulation of intercellular adhesion molecule-1 in coeliac disease. *Clinical and Experimental Immunology* 1990;82(3):489-492. Not sensitivity or specificity of an identified test

Sturgess R, Day P, Ellis H J et al. Wheat peptide challenge

- in coeliac disease. *Lancet* 1994;343(8900):758-761. Not sensitivity or specificity of an identified test
- Subramanian V S, Krishnaswami C V, Damodaran C. HLA, ESD, GLOI, C3 and HP polymorphisms and juvenile insulin dependent diabetes mellitus in Tamil Nadu (South India). *Diabetes Res Clin Pract* 1994;25(1):51-59. Not sensitivity or specificity of an identified test
- Suedhoff T, Birckbichler P J, Lee K N et al. Differential expression of transglutaminase in human erythroleukemia cells in response to retinoic acid. *Cancer Research* 1990;50(24):7830-7834. Not sensitivity or specificity of an identified test
- Sueur R, Cerf M, Di Costanzo G et al. Quantitative studies in vitro on uptake and esterification of palmitate into human and rat jejunal mucosa. *Digestion* 1977;15(1):34-42. Not sensitivity or specificity of an identified test
- Sugai E, Selvaggio G, Vazquez H et al. Tissue transglutaminase antibodies in celiac disease: assessment of a commercial kit. *American Journal of Gastroenterology* 2000;95(9):2318-2322. Improper control group
- Sugai Emilia, Chernavsky Alejandra, Pedreira Silvia et al. Bone-specific antibodies in sera from patients with celiac disease: characterization and implications in osteoporosis. *Journal of Clinical Immunology* 2002;22(6):353-362. Not sensitivity or specificity of an identified test
- Sugden P, Andrew J G, Andrew S M et al. Dermal dendrocytes in Dupuytren's disease: a link between the skin and pathogenesis?. *Journal of Hand Surgery (Edinburgh, Lothian)* 1993;18(5):662-666. Not sensitivity or specificity of an identified test
- Suharjono. Intestinal biopsy and coeliac disease. *Paediatrica Indonesiana* 1971;11(3):116-134. Not sensitivity or specificity of an identified test
- Suharjono Sunoto, Damajanti A, Darmawan S et al. Small intestine biopsy in protein calorie malnutrition and celiac children. *Paediatrica Indonesiana* 1971;11(5):7-15. Not sensitivity or specificity of an identified test
- Sujirachato K, Chiewsilp P, Tsuji K et al. HLA class II polymorphism in Thai insulin-dependent diabetes mellitus. *Tokai J Exp Clin Med* 1994;19(1-2):73-81. Not sensitivity or specificity of an identified test
- Sulkanen S, Halttunen T, Marttinen A et al. Autoantibodies in celiac disease: importance of fibroblasts. *Journal of Pediatric Gastroenterology and Nutrition* 1998;27(2):206-213. Not sensitivity or specificity of an identified test
- Sumi Yoshihiko, Inoue Nobutaka, Azumi Hiroshi et al. Expression of tissue transglutaminase and elafin in human coronary artery: implication for plaque instability. *Atherosclerosis* 2002;160(1):31-39. Not sensitivity or specificity of an identified test
- Summey Brett T, Graff Ronald D, Lai Thung et al. Tissue transglutaminase localization and activity regulation in the extracellular matrix of articular cartilage. *Journal of Orthopaedic Research - Official Publication of the Orthopaedic Research Society* 2002;20(1):76-82. Not sensitivity or specificity of an identified test
- Sumnik Z, Kolouskova S, Cinek O et al. HLA-DQA1\*05-DQB1\*0201 positivity predisposes to coeliac disease in Czech diabetic children. *Acta Paediatrica (Oslo, Norway - 1992)* 2000;89(12):1426-1430. Improper control group
- Sundqvist T, Laurin P, Falth-Magnusson K et al. Significantly increased levels of nitric oxide products in urine of children with celiac disease. *Journal of Pediatric Gastroenterology and Nutrition* 1998;27(2):196-198. Not sensitivity or specificity of an identified test
- Sung L A, Chien S, Fan Y S et al. Human erythrocyte protein 4.2: isoform expression, differential splicing, and chromosomal assignment. *Blood* 1992;79(10):2763-2770. Not sensitivity or specificity of an identified test
- Sunitha I, Meighen D L, Hartman D P et al. Hepatocyte growth factor stimulates invasion across reconstituted basement membranes by a new human small intestinal cell line. *Clinical & Experimental Metastasis* 1994;12(2):143-154. Not sensitivity or specificity of an identified test
- Suranyi Y, Freier S, Faber J et al. Intestinal mast cells in different stages of celiac disease. *Israel Journal of Medical Sciences* 1986;22(5):370-375. Unable to extract data
- Susi M, Holopainen P, Mustalahti K et al. Candidate gene region 15q26 and genetic susceptibility to coeliac disease in Finnish families. *Scandinavian Journal of Gastroenterology* 2001;36(4):372-374. Not sensitivity or specificity of an identified test
- Sutton G. Coeliac disease: Testing the New Zealand iceberg. *New Zealand J Med Lab Sci* 2000;54(2):46-48. Not sensitivity or specificity of an identified test
- Suzuki M, Nikaido T, Ikegami M et al. Renal adenoma. Clinicopathological and histochemical studies. *Acta Pathologica Japonica* 1989;39(11):731-736. Not sensitivity or specificity of an identified test
- Svendsen M L, Daneels G, Geysen J et al. Proliferation and differentiation of cultured human keratinocytes is modulated by 1,25(OH)2D3 and synthetic vitamin D3 analogues in a cell density-, calcium- and serum-dependent manner. *Pharmacology & Toxicology* 1997;80(1):49-56. Not sensitivity or specificity of an identified test
- Svensson J, Carlsson A, Ericsson U-B et al. Noonan's syndrome and autoimmune diseases. *J Pediatr Endocrinol Metab* 2003;16(2):217-218. Not sensitivity or specificity of an identified test
- Sviridov D D, Izachik N A, Safonova I G et al. Cholesterol synthesis in the small intestine of patients with

malabsorption syndrome. *Digestion* 1988;40(3):152-156. Not sensitivity or specificity of an identified test

Sweeney E C, Masterson J B. Duodenal diaphragm with malabsorption. *Ir Med J* 1974;67(19):510-512. Not sensitivity or specificity of an identified test

Swinson C M, Levi A J. Is coeliac disease underdiagnosed?. *British Medical Journal* 1980;281(6250):1258-1260. Not sensitivity or specificity of an identified test

Swinson C M, Hall P J, Bedford P A et al. HLA antigens in coeliac disease associated with malignancy. *Gut* 1983;24(10):925-928. Not sensitivity or specificity of an identified test

Swinson C M, Slavin G, Coles E C et al. Coeliac disease and malignancy. *Lancet* 1983;1(8316):111-115. Not sensitivity or specificity of an identified test

Sylwestrowicz T, Kelly J K, Hwang W S et al. Collagenous colitis and microscopic colitis: The watery diarrhea-colitis syndrome. *American Journal of Gastroenterology* 1989;84(7):763-768. Not sensitivity or specificity of an identified test

Szabo B, Jezernicky J, Kawai M. Immunological findings in primary malabsorption. *Acta Paediatr Acad Sci Hung* 1982;23(3):337-342. Not sensitivity or specificity of an identified test

Szabolcs M, Sipka S, Csorba S. In vitro cross-linking of gluten into high-molecular-weight polymers with transglutaminase. *Acta Paediatrica Hungarica* 1987;28(3-4):215-227. Not sensitivity or specificity of an identified test

Szaflarska-Szczepanik A, Czerwionka-Szaflarska M. The frequency of occurrence and clinical picture of celiac disease in the parents of children with the disease. *Medical Science Monitor - International Medical Journal of Experimental and Clinical Research* 2001;7(5):971-976. Not sensitivity or specificity of an identified test

Szaflarska-Szczepanik Anna. Assessment of correlation between the presence of antiendomysial antibodies and small intestine mucosal villous atrophy in the diagnostics of celiac disease. *Medical Science Monitor - International Medical Journal of Experimental and Clinical Research* 2002;8(3):Cr185-Cr188. Not sensitivity or specificity of an identified test

Szaflarska-Szczepanik A, Romanczuk W, Odrowaz-Sypniewska G et al. Anti tissue transglutaminase antibodies (IgA(dagger)TG) for diagnosing of coeliac disease in children. *Pediatr Wspolczesna* 2002; 4(3):339-342. Unable to obtain full article

Szegezdi E, Szondy Z, Nagy L et al. Apoptosis-linked in vivo regulation of the tissue transglutaminase gene promoter. *Cell Death Differ* 2000;7(12):1225-1233. Not

sensitivity or specificity of an identified test

Tabaqchali S, Hatzioannou J, Booth C C. Bile-salt deconjugation and steatorrhea in patients with the stagnant-loop syndrome. *Lancet* 1968;2(7558):12-16. Not sensitivity or specificity of an identified test

Tabbaa M G, Axon A T R, Dixon M F. Enterocyte dimensions in patients with abnormal intestinal permeability. *European Journal of Gastroenterology & Hepatology* 1994;6(7):607-610. Not sensitivity or specificity of an identified test

Tabrez S, Roberts I M. Malabsorption and malnutrition. *Primary Care* 2001;28(3):505-22, V. Not sensitivity or specificity of an identified test

Tait B D, Harrison L C, Drummond B P et al. HLA antigens and age at diagnosis of insulin-dependent diabetes mellitus. *Hum Immunol* 1995;42(2):116-122. Not sensitivity or specificity of an identified test

Takahashi H, Aoki N, Nakamura S et al. Cornified cell envelope formation is distinct from apoptosis in epidermal keratinocytes. *Journal of Dermatological Science* 2000;23(3):161-169. Not sensitivity or specificity of an identified test

Takahashi H, Isobe T, Horibe S et al. Tissue transglutaminase, coagulation factor XIII, and the pro-polyptide of von Willebrand factor are all ligands for the integrins alpha 9beta 1 and alpha 4beta 1. *Journal of Biological Chemistry* 2000;275(31):23589-23595. Not sensitivity or specificity of an identified test

Takahashi M, Tezuka T. Hematoxylin stainable epidermal protein of the newborn rat. IV. The change of antigenicity in situ by transglutaminase as determined by an immunofluorescent study. *J Dermatol* 1989;16(3):178-183. Not sensitivity or specificity of an identified test

Takahashi M, Tezuka T, Katunuma N. Filaggrin linker segment peptide and cystatin alpha are parts of a complex of the cornified envelope of epidermis. *Arch Biochem Biophys* 1996;329(1):123-126. Not sensitivity or specificity of an identified test

Takahashi M, Tezuka T, Kakegawa H et al. Linkage between phosphorylated cystatin alpha and filaggrin by epidermal transglutaminase as a model of cornified envelope and inhibition of cathepsin L activity by cornified envelope and the conjugated cystatin alpha. *Febs Lett* 1994;340(3):173-176. Not sensitivity or specificity of an identified test

Takahashi N, Takahashi Y, Putnam F W. Primary structure of blood coagulation factor XIIIa (fibrinolytic, transglutaminase) from human placenta. *Proceedings of the National Academy of Sciences of the United States of America* 1986;83(21):8019-8023. Not sensitivity or specificity of an identified test

- Takaku K, Futamura M, Saitoh S et al. Tissue-type transglutaminase is not a tumor-related marker. *Journal of Biochemistry* 1995;118(6):1268-1270. Not sensitivity or specificity of an identified test
- Talal A H, Murray J A, Goeken J A et al. Celiac disease in an adult population with insulin-dependent diabetes mellitus: use of endomysial antibody testing. *American Journal of Gastroenterology* 1997;92(8):1280-1284. Not sensitivity or specificity of an identified test
- Talley N J, Kephart G M, McGovern T W et al. Deposition of eosinophil granule major basic protein in eosinophilic gastroenteritis and celiac disease. *Gastroenterology* 1992;103(1):137-145. Not sensitivity or specificity of an identified test
- Talme T, Schultzberg M, Sundqvist K G et al. Somatostatin- and factor XIIIa-immunoreactive cells in psoriasis during clobetasol propionate and calcipotriol treatment. *Acta Dermato-Venereologica* 1999;79(1):44-48. Not sensitivity or specificity of an identified test
- Tamada Y, Takama H, Kitamura T et al. Expression of transglutaminase I in human anagen hair follicles. *Acta Dermato-Venereologica* 1995;75(3):190-192. Not sensitivity or specificity of an identified test
- Taminiau J A. Celiac disease. *Current Opinion in Pediatrics* 1996;8(5):483-486. Not sensitivity or specificity of an identified test
- Tanaka N, Fujioka A, Tajima S et al. Levels of proelafin peptides in the sera of the patients with generalized pustular psoriasis and pustulosis palmoplantaris. *Acta Dermato-Venereologica* 2000;80(2):102-105. Not sensitivity or specificity of an identified test
- Tanay Amir, Brickman Chaim M, Gas Svetlana et al. TG or not TG: IgG-anti-tissue transglutaminase in systemic lupus erythematosus: new role for an old enzyme. *Israel Medical Association Journal - Imaj* 2002;4(11 Suppl):878-879. Not sensitivity or specificity of an identified test
- Tandon N, Shtauvere-Brameus A, Hagopian W A et al. Prevalence of ICA-12 and other autoantibodies in north Indian patients with early-onset diabetes. *Annals of the New York Academy of Sciences* 2002;958:214-217. Not sensitivity or specificity of an identified test
- Taneja V, Malaviya A N, Mehra N K. Restriction fragment length polymorphisms in HLA-DR4-DQ3 haplotypes associated with rheumatoid arthritis. *Indian J Med Res* 1994;99(May):216-222. Not sensitivity or specificity of an identified test
- Taresa E, Kedei N, Thomazy V et al. An involucrin-like protein in hepatocytes serves as a substrate for tissue transglutaminase during apoptosis. *Journal of Biological Chemistry* 1992;267(36):25648-25651. Not sensitivity or specificity of an identified test
- Tarlo S M, Broder I, Prokipchuk E J. Association between celiac disease and lung disease. *Chest* 1981;80(6):715-718. Not sensitivity or specificity of an identified test
- Tarmure Simina, Grigorescu Mircea, Cristea Anca et al. Antiendomysial and antitissue transglutaminase antibodies in gluten-induced enteropathy. *Romanian Journal of Gastroenterology* 2002;11(2):91-95. Improper control group
- Tate G, Ishizawa M. Structural similarity of the HLA-DQ region in DQ3 and DQ4 haplotypes and structural diversity of the HLA-DQ region in HLA-DR7 haplotypes. *Microbiol Immunol* 1992;36(7):737-744. Not sensitivity or specificity of an identified test
- Taylor B, Sokol G. Cystic fibrosis and coeliac disease. Report of two cases. *Arch Dis Child* 1973;48(9):692-696. Not sensitivity or specificity of an identified test
- Taylor C J. Predictive value of intraepithelial lymphocyte counts in childhood coeliac disease. *Journal of Pediatric Gastroenterology and Nutrition* 1988;7(4):532-536. Unable to extract data
- Taylor C J, Smith S I, Morgan C H et al. HLA and Mooren's ulceration. *Br J Ophthalmol* 2000;84(1):72-75. Not sensitivity or specificity of an identified test
- Tedeschi A, Tuccari G, Magazzu G et al. Immunohistochemical localization of lactoferrin in duodenojejunal mucosa from celiac children. *Journal of Pediatric Gastroenterology and Nutrition* 1987;6(3):328-334. Not sensitivity or specificity of an identified test
- Teepe R G, Burger A, Ponc M. Immunohistochemical studies on regeneration in cultured epidermal autografts used to treat full-thickness burn wounds. *Clinical and Experimental Dermatology* 1994;19(1):16-22. Not sensitivity or specificity of an identified test
- Teesalu K, Uibo O, Kalkkinen N et al. Increased levels of IgA antibodies against desmin in children with coeliac disease. *International Archives of Allergy and Immunology* 2001;126(2):157-166. Not sensitivity or specificity of an identified test
- ten Dam M, van de, Wal Y et al. Anti-alpha-gliadin antibodies (AGA) in the serum of coeliac children and controls recognize an identical collection of linear epitopes of alpha-gliadin. *Clinical and Experimental Immunology* 1998;114(2):189-195. Not sensitivity or specificity of an identified test
- Tepper R E, Simon D, Brandt L J et al. Intestinal permeability in patients infected with the human immunodeficiency virus. *American Journal of Gastroenterology* 1994;89(6):878-882. Not sensitivity or specificity of an identified test
- Teppo A M, Maury C P J. Antibodies to gliadin, gluten and reticulins glycoprotein in rheumatic diseases: Elevated

- levels in Sjogren's syndrome. *Clinical and Experimental Immunology* 1984;57(1):73-78. Not sensitivity or specificity of an identified test
- ter Steege J, Buurman W, Arends J W et al. Presence of inducible nitric oxide synthase, nitrotyrosine, CD68, and CD14 in the small intestine in celiac disease. *Laboratory Investigation* 1997;A *Journal of Technical Methods and Pathology*; 77(1):29-36. Not sensitivity or specificity of an identified test
- Tessier J L, Davies G A L. Giardiasis. *Prim Care Update Ob Gyns* 1999;6(1):8-11. Not sensitivity or specificity of an identified test
- Thacher S M. Purification of keratinocyte transglutaminase and its expression during squamous differentiation. *Journal of Investigative Dermatology* 1989;92(4):578-584. Not sensitivity or specificity of an identified test
- Thacher S M, Rice R H. Keratinocyte-specific transglutaminase of cultured human epidermal cells: relation to cross-linked envelope formation and terminal differentiation. *Cell* 1985;40(3):685-695. Not sensitivity or specificity of an identified test
- Thacher S M, Rice R H. Monoclonal antibody to transglutaminase in the particulate fraction of human keratinocytes. *Fed Proc* 1984;43(6):No 2164 Not sensitivity or specificity of an identified test
- Thain M E, Hamilton J R, Ehrlich R M. Coexistence of diabetes mellitus and celiac disease. *Journal of Pediatrics* 1974;85(4):527-529. Not sensitivity or specificity of an identified test
- Thapa B R. Celiac disease in India. *Indian Journal of Pediatrics* 1999;66(1 Suppl):S16-S20. Not sensitivity or specificity of an identified test
- Thapa B R. Celiac disease in children: Recent concepts. *Jk Science* 2001;3(1):3-12. Not sensitivity or specificity of an identified test
- Theintz G E, Nussle D, Cox J et al. Prolactin and the gut: a controversy. *Journal of Pediatric Gastroenterology and Nutrition* 1984;3(4):523-528. Not sensitivity or specificity of an identified test
- Theodor E, Gilon E. Protracted diarrhea of unknown etiology in Israeli soldiers. *Israel Journal of Medical Sciences* 1975;11(5):458-464. Not sensitivity or specificity of an identified test
- Thomas A A, Martin S, Tate D G. An HLA-DQ2 specific cytotoxic alloantibody resulting from a failed renal transplant: A protocol for identification and verification. *Eur J Immunogenet* 1992;19(6):460 Not sensitivity or specificity of an identified test
- Thomas A G, Phillips A D, Walker-Smith J A. The value of proximal small intestinal biopsy in the differential diagnosis of chronic diarrhoea. *Archives of Disease in Childhood* 1992;67(6):741-743. Unable to extract data
- Thomas G L, Henley A, Rowland T C et al. Enhanced apoptosis in transformed human lung fibroblasts after exposure to sodium butyrate. *In Vitro Cellular & Developmental Biology*. *Animal* 1996;32(8):505-513. Not sensitivity or specificity of an identified test
- Thomas L N, Wright A S, Lazier C B et al. Prostatic involution in men taking finasteride is associated with elevated levels of insulin-like growth factor-binding proteins (IGFBPs)-2, -4, and -5. *Prostate* 2000;42(3):203-210. Not sensitivity or specificity of an identified test
- Thomas P D, Forbes A, Green J et al. Guidelines for the investigation of chronic diarrhoea, 2nd edition. *Gut* 2003;52(Suppl 5):v1-v15. Not sensitivity or specificity of an identified test
- Thomazy V A, Davies P J A. Expression of tissue transglutaminase in the developing chicken limb is associated both with apoptosis and endochondral ossification. *Cell Death Differ* 1999;6(2):146-154. Not sensitivity or specificity of an identified test
- Thomazy V, Fesus L. Differential expression of tissue transglutaminase in human cells. An immunohistochemical study. *Cell and Tissue Research* 1989;255(1):215-224. Not sensitivity or specificity of an identified test
- Thomazy Vilmos A, Vega Francisco, Medeiros L et al. Phenotypic modulation of the stromal reticular network in normal and neoplastic lymph nodes: tissue transglutaminase reveals coordinate regulation of multiple cell types. *American Journal of Pathology* 2003;163(1):165-174. Not sensitivity or specificity of an identified test
- Thompson H. Pathology of coeliac disease. *Current Topics in Pathology* 1976;6349-75. Unable to extract data
- Thompson H. The small intestine at autopsy. *Clin Gastroenterol* 1974;3(1):171-181. Not sensitivity or specificity of an identified test
- Thomson A B, Keelan M, Thiesen A et al. Small bowel review: diseases of the small intestine. *Digestive Diseases and Sciences* 2001;46(12):2555-2566. Not sensitivity or specificity of an identified test
- Thomson G. HLA disease associations: models for the study of complex human genetic disorders. *Crit Rev Clin Lab Sci* 1995;32(2):183-219. Not sensitivity or specificity of an identified test
- Thomson G. Investigation of the mode of inheritance of the HLA associated diseases by the method of antigen genotype frequencies among diseased individuals. *Tissue Antigens* 1983;21(2):81-104. Not sensitivity or specificity of an identified test

- Thornquist H, Jacobsen G S, Dahl L B et al. Coeliac disease and gluten-free diet: a following-up study of fifteen young adults. *Annals of Nutrition & Metabolism* 1993;37(6):295-301. Not sensitivity or specificity of an identified test
- Thorsby E. Invited anniversary review: HLA associated diseases. *Hum Immunol* 1997;53(1):1-11. Not sensitivity or specificity of an identified test
- Thorsby E, Lundin K E, Ronningen K S et al. Molecular basis and functional importance of some disease-associated HLA polymorphisms. *Tissue Antigens* 1989;34(1):39-49. Not sensitivity or specificity of an identified test
- Thurley C A, Kwan W C, Freeman H J et al. T cell receptor gene expression and genotypes in celiac disease. *Pathobiology - Journal of Immunopathology, Molecular and Cellular Biology* 1994;62(5-6):311-318. Not sensitivity or specificity of an identified test
- Tiberti C, Buzzetti R, Anastasi E et al. Autoantibody negative new onset type 1 diabetic patients lacking high risk HLA alleles in a caucasian population: are these type 1b diabetes cases?. *Diabetes/Metabolism Research and Reviews* 2000;16(1):8-14. Not sensitivity or specificity of an identified test
- Tighe M R, Ciclitira P J. The implications of recent advances in coeliac disease. *Acta Paediatrica (Oslo, Norway - 1992)* 1993;82(10):805-810. Not sensitivity or specificity of an identified test
- Tighe M R, Ciclitira P J. The gluten-host interaction. *Bailliere's Clin Gastroenterol* 1995;9(2):211-230. Not sensitivity or specificity of an identified test
- Tighe M R, Hall M A, Ashkenazi A et al. Celiac disease among Ashkenazi Jews from Israel. A study of the HLA class II alleles and their associations with disease susceptibility. *Human Immunology* 1993;38(4):270-276. Improper control group
- Tighe M R, Hall M A, Barbado M et al. HLA class II alleles associated with celiac disease susceptibility in a southern European population. *Tissue Antigens* 1992;40(2):90-97. Improper control group
- Tighe M R, Hall M A, Cardi E et al. Associations between alleles of the major histocompatibility complex-encoded ABC transporter gene TAP2, HLA class II alleles, and celiac disease susceptibility. *Human Immunology* 1994;39(1):9-16. Not sensitivity or specificity of an identified test
- Tighe R, Ciclitira P J. Molecular biology of coeliac disease. *Archives of Disease in Childhood* 1995;73(3):189-191. Not sensitivity or specificity of an identified test
- Tighe R, Ciclitira P J. Celiac disease. *Curr Opin Gastroenterol* 1995;11(2):112-115. Not sensitivity or specificity of an identified test
- Tikhonov YuV, Pimenov A M, Uzhevko S A et al. Ion-pair high-performance liquid chromatography of purine compounds in the small intestinal mucosa of children with coeliac disease. *Journal of Chromatography* 1990;520419-423. Not sensitivity or specificity of an identified test
- Tiltman A J, Allard U. Female adnexal tumours of probable Wolffian origin: an immunohistochemical study comparing tumours, mesonephric remnants and paramesonephric derivatives. *Histopathology* 2001;38(3):237-242. Not sensitivity or specificity of an identified test
- Timms B G, Lee C W, Aumuller G et al. Instructive induction of prostate growth and differentiation by a defined urogenital sinus mesenchyme. *Microsc Res Tech* 1995;30(4):319-332. Not sensitivity or specificity of an identified test
- Tiwana H, Walmsley R S, Wilson C et al. Characterization of the humoral immune response to *Klebsiella* species in inflammatory bowel disease and ankylosing spondylitis. *British Journal of Rheumatology* 1998;37(5):525-531. Not sensitivity or specificity of an identified test
- Tiwari J L, Betuel H, Gebuhrer L et al. Genetic epidemiology of coeliac disease. *Genetic Epidemiology* 1984;1(1):37-42. Not sensitivity or specificity of an identified test
- Toida M, Okumura Y, Swe Win K K et al. Characterization of cells containing factor XIII subunit a in benign and malignant buccal lesions. *Histochemical Journal* 1995;27(6):449-456. Not sensitivity or specificity of an identified test
- Tomkins A M, Drasar B S, James W P. Bacterial colonisation of jejunal mucosa in acute tropical sprue. *Lancet* 1975;1(7898):59-62. Not sensitivity or specificity of an identified test
- Tomkins A M, James W P, Walters J H et al. Malabsorption in overland travellers to India. *British Medical Journal* 1974;3(5927):380-384. Not sensitivity or specificity of an identified test
- Toner P G, Ferguson A. Intraepithelial cells in the human intestinal mucosa. *Journal of Ultrastructure Research* 1971;34(3):329-344. Not sensitivity or specificity of an identified test
- Tonutti E, Visentini D, Bizzaro N et al. The role of antitissue transglutaminase assay for the diagnosis and monitoring of coeliac disease: a French-Italian multicentre study. *Journal of Clinical Pathology* 2003;56(5):389-393. Improper control group
- Torn C, Gupta M, Zake L N et al. Heterozygosity for MICA5.0/MICA5.1 and HLA-DR3-DQ2/DR4-DQ8 are independent genetic risk factors for latent autoimmune diabetes in adults. *Hum Immunol* 2003;64(9):902-909. Not sensitivity or specificity of an identified test

Torrente F, Ashwood P, Day R et al. Small intestinal enteropathy with epithelial IgG and complement deposition in children with regressive autism. *Molecular Psychiatry* 2002;7(4):375-82, 334. Not sensitivity or specificity of an identified test

Toscano V, Conti F G, Anastasi E et al. Importance of gluten in the induction of endocrine autoantibodies and organ dysfunction in adolescent celiac patients. *American Journal of Gastroenterology* 2000;95(7):1742-1748. Not sensitivity or specificity of an identified test

Tosi R, Tanigaki N, Polanco I et al. A radioimmunoassay typing study of non-DQw2-associated celiac disease. *Clinical Immunology and Immunopathology* 1986;39(1):168-172. Not sensitivity or specificity of an identified test

Tosi R, Vismara D, Tanigaki N et al. Evidence that celiac disease is primarily associated with a DC locus allelic specificity. *Clin Immunol Immunopathol* 1983;28(3):395-404. Not sensitivity or specificity of an identified test

Townley R R. Diagnosis and treatment of coeliac disease in childhood. *Medical Journal of Australia* 1971;1(13):696-698. Not sensitivity or specificity of an identified test

Townley R R, Anderson C M. Coeliac disease. A review. *Ergebnisse Der Inneren Medizin Und Kinderheilkunde* 1967;261-44. Not sensitivity or specificity of an identified test

Townley R R, Barnes G L. Intestinal biopsy in childhood. *Archives of Disease in Childhood* 1973;48(6):480-482. Not sensitivity or specificity of an identified test

Trabace S, Cappellacci S, Ciccarone P et al. Psoriatic arthritis: A clinical, radiological and genetic study of 58 Italian patients. *Acta Derm-Venereol Suppl* 1994;-(186):69-70. Not sensitivity or specificity of an identified test

Trabace S, Giunta A, Rosso M et al. HLA-ABC and DR antigens in celiac disease. A study in a pediatric Italian population. *Vox Sanguinis* 1984;46(2):102-106. Not sensitivity or specificity of an identified test

Trejdosiewicz L K, Malizia G, Oakes J et al. Expression of the common acute lymphoblastic leukaemia antigen (CALLA gp100) in the brush border of normal jejunum and jejunum of patients with coeliac disease. *Journal of Clinical Pathology* 1985;38(9):1002-1006. Not sensitivity or specificity of an identified test

Trivisoli C, Not T, Berti I et al. Screening for coeliac disease in healthy blood donors at two immuno-transfusion centres in north-east Italy. *Italian Journal of Gastroenterology and Hepatology* 1999;31(7):584-586. Not sensitivity or specificity of an identified test

Trivisoli C, Ventura A, Baldas V et al. A reliable screening

procedure for coeliac disease in clinical practice. *Scandinavian Journal of Gastroenterology* 2002;37(6):679-684. Improper control group

Trier J S. Diagnostic value of peroral biopsy of the proximal small intestine. *New England Journal of Medicine* 1971;285(26):1470-1473. Not sensitivity or specificity of an identified test

Trier J S. Organ-culture methods in the study of gastrointestinal-mucosal function and development. *New England Journal of Medicine* 1976;295(3):150-155. Not sensitivity or specificity of an identified test

Trier J S. Medical progress: Celiac sprue. *New Engl J Med* 1991;325(24):1709-1719. Not sensitivity or specificity of an identified test

Trier J S, Browning T H. Epithelial-cell renewal in cultured duodenal biopsies in celiac sprue. *New England Journal of Medicine* 1970;283(23):1245-1250. Not sensitivity or specificity of an identified test

Trier J S, Moxey P C, Fordtran J S et al. Ectopic gastric mucosa in celiac sprue. *Gastroenterology* 1973;65(5):712-727. Not sensitivity or specificity of an identified test

Trieshmann H W, Abraham G N, Santucci E A. The characterization of human anti IgG autoantibodies by liquid isoelectric focussing. *J Immunol* 1975;114(1 I):176-181. Not sensitivity or specificity of an identified test

Trojani M, de Mascarel I, Coindre J M. Adenoid cystic carcinoma of the breast. Value of immunohistochemical study in diagnosis. *Tumori* 1991;77(2):130-135. Not sensitivity or specificity of an identified test

Troncone R. Towards new diagnostic criteria for coeliac disease. *Ital J Pediat* 2002;28(4):245-248. Review article

Troncone R, Ferguson A. Anti-gliadin antibodies. *Journal of Pediatric Gastroenterology and Nutrition* 1991;12(2):150-158. Not sensitivity or specificity of an identified test

Troncone R, Caputo N, Micillo M et al. Immunologic and intestinal permeability tests as predictors of relapse during gluten challenge in childhood coeliac disease. *Scandinavian Journal of Gastroenterology* 1994;29(2):144-147. Not sensitivity or specificity of an identified test

Troncone R, Catassi C, Lambertini A et al. Latent coeliac disease in Italy. *Acta Paediatr Int J Paediatr* 1995;84(11):1252-1257. Improper control group

Troncone R, Esposito C, Auricchio S. The role of tissue transglutaminase in the pathophysiology of coeliac disease. *Minerva Biotecnol* 2002;14(2):177-180. Not sensitivity or specificity of an identified test

Troncone R, Farris E, Donatiello A et al. In vitro gliadin antibody production by peripheral blood mononuclear cells

- from patients with coeliac disease. *Journal of Clinical & Laboratory Immunology* 1987;23(4):179-183. Not sensitivity or specificity of an identified test
- Troncone R, Gianfrani C, Mazzarella G et al. Majority of gliadin-specific T-cell clones from celiac small intestinal mucosa produce interferon-gamma and interleukin-4. *Digestive Diseases and Sciences* 1998;43(1):156-161. Not sensitivity or specificity of an identified test
- Troncone R, Greco L, Auricchio S. Gluten-sensitive enteropathy. *Pediatric Clinics of North America* 1996;43(2):355-373. Not sensitivity or specificity of an identified test
- Troncone R, Greco L, Mayer M et al. In siblings of celiac children, rectal gluten challenge reveals gluten sensitization not restricted to celiac HLA. *Gastroenterology* 1996;111(2):318-324. Not sensitivity or specificity of an identified test
- Troncone R, Greco L, Mayer M et al. Latent and potential coeliac disease. *Acta paediatrica (Oslo, Norway : 1992).Supplement.* 1996;412:10-14. Not sensitivity or specificity of an identified test
- Troncone R, Mayer M, Mugione P et al. Cellobiose/mannitol sugar permeability test in children in relation to jejunal morphometry. *Italian Journal of Gastroenterology* 1995;27(9):489-493. Not sensitivity or specificity of an identified test
- Troncone R, Mayer M, Spagnuolo F et al. Endomysial antibodies as unreliable markers for slight dietary transgressions in adolescents with celiac disease. *Journal of Pediatric Gastroenterology and Nutrition* 1995;21(1):69-72. Not sensitivity or specificity of an identified test
- Troncone R, Mazzarella G, Leone N et al. Gliadin activates mucosal cell mediated immunity in cultured rectal mucosa from coeliac patients and a subset of their siblings. *Gut* 1998;43(4):484-489. Not sensitivity or specificity of an identified test
- Troncone R, Pignata C, Farris E. Suppressor cells and humoral immune response to gliadin in HLA-DR 3 or -DR 7 positive healthy subjects. *Immunol Clin Sper* 1985;4(1):25-32. Not sensitivity or specificity of an identified test
- Troncone R, Pignata C, Farris E et al. A solid-phase radioimmunoassay for IgG gliadin antibodies using 125I-labelled staphylococcal protein A. *Journal of Immunological Methods* 1983;63(2):163-170. Serology <1990
- Troncone R, Starita A, Coletta S et al. Antigliadin antibody, D-xylose, and cellobiose/mannitol permeability tests as indicators of mucosal damage in children with coeliac disease. *Scandinavian Journal of Gastroenterology* 1992;27(8):703-706. Not sensitivity or specificity of an identified test
- Troncone R, Vitale M, Donatiello A et al. A sandwich enzyme immunoassay for wheat gliadin. *Journal of Immunological Methods* 1986;92(1):21-23. Not sensitivity or specificity of an identified test
- Troncone Riccardo, Franzese Adriana, Mazzarella Giuseppe et al. Gluten sensitivity in a subset of children with insulin dependent diabetes mellitus. *American Journal of Gastroenterology* 2003;98(3):590-595. Not sensitivity or specificity of an identified test
- Tsao S W, Chew E C, Yam H F et al. Ultrastructural localization of a new surface membrane antigen (SQM1) related to squamous differentiation. *In Vivo (Athens, Greece)* 1989;3(6):367-374. Not sensitivity or specificity of an identified test
- Tshibassu M, Geboes K, Eggermont E et al. Jejunal mucosa lymphoid cell subsets and the expression of major histocompatibility complex antigens in children. *European Journal of Pediatrics* 1987;146(3):251-256. Not sensitivity or specificity of an identified test
- Tuccari G, Barresi G. Simultaneous demonstration of mucins and lysozyme in duodeno-jejunal biopsies of coeliac infants. *Basic and Applied Histochemistry* 1984;28(2):177-182. Not sensitivity or specificity of an identified test
- Tucholski J, Kuret J, Johnson G V. Tau is modified by tissue transglutaminase in situ: possible functional and metabolic effects of polyamination. *Journal of Neurochemistry* 1999;73(5):1871-1880. Not sensitivity or specificity of an identified test
- Tucholski J, Lesort M, Johnson G V. Tissue transglutaminase is essential for neurite outgrowth in human neuroblastoma SH-SY5Y cells. *Neuroscience* 2001;102(2):481-491. Not sensitivity or specificity of an identified test
- Tucholski Janusz, Johnson Gail V. Tissue transglutaminase differentially modulates apoptosis in a stimuli-dependent manner. *Journal of Neurochemistry* 2002;81(4):780-791. Not sensitivity or specificity of an identified test
- Tucholski Janusz, Johnson Gail V. Tissue transglutaminase directly regulates adenylyl cyclase resulting in enhanced cAMP-response element-binding protein (CREB) activation. *Journal of Biological Chemistry* 2003;278(29):26838-26843. Not sensitivity or specificity of an identified test
- Tucker N T, Barghuthy F S, Prihoda T J et al. Antigliadin antibodies detected by enzyme-linked immunosorbent assay as a marker of childhood celiac disease. *Journal of Pediatrics* 1988;113(2):286-289. Serology <1990
- Tuckova L, Karska K, Walters J R et al. Anti-gliadin antibodies in patients with celiac disease cross-react with enterocytes and human calreticulin. *Clinical Immunology*

- and Immunopathology 1997;85(3):289-296. Not sensitivity or specificity of an identified test
- Tuckova L, Tlaskalova-Hogenova H, Farre M A et al. Molecular mimicry as a possible cause of autoimmune reactions in celiac disease? Antibodies to gliadin cross-react with epitopes on enterocytes. *Clinical Immunology and Immunopathology* 1995;74(2):170-176. Not sensitivity or specificity of an identified test
- Tumer L, Altuntas B, Hasanoglu A et al. Pattern of human leukocyte antigens in Turkish children with celiac disease. *Pediatrics International - Official Journal of the Japan Pediatric Society* 2000;42(6):678-681. Improper control group
- Tumer L, Hasanoglu A, Aybay C. Endomysium antibodies in the diagnosis of celiac disease in short-statured children with no gastrointestinal symptoms. *Pediatrics International - Official Journal of the Japan Pediatric Society* 2001;43(1):71-73. Improper control group
- Tuncyurek M. Immunoglobulin-containing cells on intestinal wall in coeliac disease. *Aegean Med J* 1979;8(1):31-37. Not sensitivity or specificity of an identified test
- Tuomilehto-Wolf E, Tuomilehto J. Is the high incidence of diabetes in young children diagnosed under the age of 4 years determined by genetic factors in Finland? The DIME Study Group. *Diabetes & Metabolism* 1993;19(1 Pt 2):167-172. Not sensitivity or specificity of an identified test
- Turcu A, Leveque L, Bielefeld P et al. Adult celiac disease and hemochromatosis. *American Journal of Gastroenterology* 2000;95(12):3661-3662. Not sensitivity or specificity of an identified test
- Turner P M, Lorand L. Complexation of fibronectin with tissue transglutaminase. *Biochemistry* 1989;28(2):628-635. Not sensitivity or specificity of an identified test
- Turowski G, Ke cedil. Soluble HLA class I antigens as a familial genetic background in coeliac disease. *Cent-Eur J Immunol* 2001;26(1):28-30. Not sensitivity or specificity of an identified test
- Tursi A, Brandimarte G, Giorgetti G M. Sorbitol H2-breath test versus anti-endomysium antibodies for the diagnosis of subclinical/silent coeliac disease. *Scandinavian Journal of Gastroenterology* 2001;36(11):1170-1172. Improper control group
- Tursi A, Brandimarte G, Giorgetti G M. Sorbitol H2-breath test versus anti-endomysium antibodies to assess histological recovery after gluten-free diet in coeliac disease. *Digestive and Liver Disease - Official Journal of the Italian Society of Gastroenterology and the Italian Association for the Study of the Liver* 2002;34(12):846-850. Not sensitivity or specificity of an identified test
- Tursi A, Brandimarte G, Giorgetti G M. Lack of Usefulness of Anti-Transglutaminase Antibodies in Assessing Histologic Recovery After Gluten-Free Diet in Celiac Disease. *Journal of Clinical Gastroenterology* 2003;37(5):387-391. Not sensitivity or specificity of an identified test
- Tursi A, Brandimarte G, Giorgetti G M et al. Effectiveness of the sorbitol HSUB2 breath test in detecting histological damage among relatives of coeliacs. *Scandinavian Journal of Gastroenterology* 2003;38(7):727-731. Not sensitivity or specificity of an identified test
- Tursi A, Brandimarte G, Giorgetti G et al. Low prevalence of antigliadin and anti-endomysium antibodies in subclinical/silent celiac disease. *American Journal of Gastroenterology* 2001;96(5):1507-1510. Improper control group
- Tursi A, Giorgetti G, Brandimarte G et al. Prevalence and clinical presentation of subclinical/silent celiac disease in adults: an analysis on a 12-year observation. *Hepato-Gastroenterology* 2001;48(38):462-464. Not sensitivity or specificity of an identified test
- Tursi Antonio, Brandimarte Giovanni. The symptomatic and histologic response to a gluten-free diet in patients with borderline enteropathy. *Journal of Clinical Gastroenterology* 2003;36(1):13-17. Not sensitivity or specificity of an identified test
- Tursi Antonio, Brandimarte Giovanni, Giorgetti Gian et al. Prevalence of antitissue transglutaminase antibodies in different degrees of intestinal damage in celiac disease. *Journal of Clinical Gastroenterology* 2003;36(3):219-221. Not sensitivity or specificity of an identified test
- Tursi Antonio, Brandimarte Giovanni, Giorgetti GianMarco. High prevalence of small intestinal bacterial overgrowth in celiac patients with persistence of gastrointestinal symptoms after gluten withdrawal. *American Journal of Gastroenterology* 2003;98(4):839-843. Not sensitivity or specificity of an identified test
- Turton C W, Turner-Warwick M, Owens R et al. Red cell folate levels, food antibodies and reticulon antibodies in farmer's lung--is there an association with coeliac disease?. *British Journal of Diseases of the Chest* 1983;77(4):397-402. Not sensitivity or specificity of an identified test
- Tuysuz B, Dursun A, Kutlu T et al. HLA-DQ alleles in patients with celiac disease in Turkey. *Tissue Antigens* 2001;57(6):540-542. Unable to extract data
- Ueda E, Ohno S, Kuroki T et al. The eta isoform of protein kinase C mediates transcriptional activation of the human transglutaminase 1 gene. *Journal of Biological Chemistry* 1996;271(16):9790-9794. Not sensitivity or specificity of an identified test
- Ueki S, Takagi J, Saito Y. Dual functions of transglutaminase in novel cell adhesion. *Journal of Cell Science* 1996;109 Pt 11:2727-2735. Not sensitivity or

specificity of an identified test

Ugurlu S, Bartley G B, Gibson L E. Necrobiotic xanthogranuloma: long-term outcome of ocular and systemic involvement. *American Journal of Ophthalmology* 2000;129(5):651-657. Not sensitivity or specificity of an identified test

Uhlig H H, Lichtenfeld J, Osman A A et al. Evidence for existence of coeliac disease autoantigens apart from tissue transglutaminase. *European Journal of Gastroenterology & Hepatology* 2000;12(9):1017-1020. Not sensitivity or specificity of an identified test

Uhlig H, Osman A A, Tanev I D et al. Role of tissue transglutaminase in gliadin binding to reticular extracellular matrix and relation to coeliac disease autoantibodies. *Autoimmunity* 1998;28(4):185-195. Not sensitivity or specificity of an identified test

Uibo O. Childhood celiac disease in Estonia: efficacy of the IgA-class anti-gliadin antibody test in the search for new cases. *Journal of Pediatric Gastroenterology and Nutrition* 1994;18(1):53-55. Not sensitivity or specificity of an identified test

Uibo O, Maaroos H I. Hospital screening of coeliac disease in Estonian children by anti-gliadin antibodies of IgA class. *Acta Paediatrica (Oslo, Norway - 1992)* 1993;82(3):233-234. Not sensitivity or specificity of an identified test

Uibo O, Lambrechts A, Mascart-Lemone F. Human oesophagus: a convenient antigenic substrate for the determination of anti-endomysium antibodies in the serological diagnosis of coeliac disease. *European Journal of Gastroenterology & Hepatology* 1995;7(1):37-40. Improper control group

Uibo O, Metskula K, Kukk T et al. Results of coeliac disease screening in Estonia in 1990-1994. *Acta paediatrica (Oslo, Norway : 1992).Supplement.* 1996;41239-41. Not sensitivity or specificity of an identified test

Uibo O, Uibo R, Kleimola V et al. Serum IgA anti-gliadin antibodies in an adult population sample. High prevalence without celiac disease. *Digestive Diseases and Sciences* 1993;38(11):2034-2037. Not sensitivity or specificity of an identified test

Uibo R, Sullivan E P, Uibo O et al. Comparison of the prevalence of glutamic acid decarboxylase (GAD65) and gliadin antibodies (AGA) in a randomly selected adult estonian population. *Hormone and Metabolic Research.Hormon- Und Stoffwechselforschung.Hormones Et Metabolisme* 2001;33(9):564-567. Not sensitivity or specificity of an identified test

Uil J J, van Elburg R M, Janssens P M et al. Sensitivity of a hyperosmolar or "low"-osmolar test solution for sugar absorption in recognizing small intestinal mucosal damage in coeliac disease. *Digestive and Liver Disease - Official Journal of the Italian Society of Gastroenterology and the*

*Italian Association for the Study of the Liver* 2000;32(3):195-200. Not sensitivity or specificity of an identified test

Uil J J, van Elburg R M, Mulder C J et al. The value of the D-xylose test compared with the differential sugar absorption test in recognizing coeliac disease. *Netherlands Journal of Medicine* 1996;49(2):68-72. Not sensitivity or specificity of an identified test

Uil J J, van Elburg R M, van Overbeek F M et al. Follow-up of treated coeliac patients: sugar absorption test and intestinal biopsies compared. *European Journal of Gastroenterology & Hepatology* 1996;8(3):219-223. Not sensitivity or specificity of an identified test

Ukabam S O, Cooper B T. Small intestinal permeability as an indicator of jejunal mucosal recovery in patients with celiac sprue on a gluten-free diet. *Journal of Clinical Gastroenterology* 1985;7(3):232-236. Not sensitivity or specificity of an identified test

Ukeda H, Ishii T, Shimizu Y et al. Immunochemical approach to characterize post-translational modification of serum albumin using anti-glutaraldehyde-treated serum albumin antibodies. *Bioscience, Biotechnology, and Biochemistry* 1997;61(2):341-346. Not sensitivity or specificity of an identified test

Umar S, Malavasi F, Mehta K. Post-translational modification of CD38 protein into a high molecular weight form alters its catalytic properties. *Journal of Biological Chemistry* 1996;271(27):15922-15927. Not sensitivity or specificity of an identified test

Underhill J A, Donaldson P T, Doherty D G et al. HLA DPB polymorphism in primary sclerosing cholangitis and primary biliary cirrhosis. *Hepatology* 1995;21(4):959-962. Not sensitivity or specificity of an identified test

Undlien D E, Friede T, Rammensee H-G et al. HLA-encoded genetic predisposition in IDDM: DR4 subtypes may be associated with different degrees of protection. *Diabetes* 1997;46(1):143-149. Not sensitivity or specificity of an identified test

Undlien D E, Kockum I, Ronningen K S et al. HLA associations in type 1 diabetes among patients not carrying high-risk DR3-DQ2 or DR4-DQ8 haplotypes. *Tissue Antigens* 1999;54(6):543-551. Not sensitivity or specificity of an identified test

Unsworth D J. Tissue transglutaminase: The major autoantigen in coeliac disease. *Cpd Bull Immunol Allergy* 2000;1(2):51-53. Not sensitivity or specificity of an identified test

Unsworth D J, Brown D L. Serological screening suggests that adult coeliac disease is underdiagnosed in the UK and increases the incidence by up to 12%. *Gut* 1994;35(1):61-64. Not sensitivity or specificity of an identified test

- Unsworth D J, Dias J, Walker-Smith J A. Antigliadin and antireticulin antibodies in coeliac disease. *Lancet* 1988;1(8587):705. Not sensitivity or specificity of an identified test
- Unsworth D J, Johnson G D, Haffenden G et al. Binding of wheat gliadin in vitro to reticulum in normal and dermatitis herpetiformis skin. *Journal of Investigative Dermatology* 1981;76(2):88-93. Not sensitivity or specificity of an identified test
- Unsworth D J, Kieffer M, Holborow E J et al. IgA anti-gliadin antibodies in coeliac disease. *Clinical and Experimental Immunology* 1981;46(2):286-293. Serology <1990
- Unsworth D J, Leonard J N, McMinn R M et al. Anti-gliadin antibodies and small intestinal mucosal damage in dermatitis herpetiformis. *British Journal of Dermatology* 1981;105(6):653-658. Not sensitivity or specificity of an identified test
- Unsworth D J, Lock R J, Harvey R F. Improving the diagnosis of coeliac disease in anaemic women. *British Journal of Haematology* 2000;111(3):898-901. Not sensitivity or specificity of an identified test
- Unsworth D J, Manuel P D, Walker-Smith J A et al. New immunofluorescent blood test for gluten sensitivity. *Archives of Disease in Childhood* 1981;56(11):864-868. Not sensitivity or specificity of an identified test
- Unsworth J, Hutchins P, Mitchell J et al. Flat small intestinal mucosa and autoantibodies against the gut epithelium. *Journal of Pediatric Gastroenterology and Nutrition* 1982;1(4):503-513. Not sensitivity or specificity of an identified test
- Upchurch H F, Conway E, Patterson M K et al. Localization of cellular transglutaminase on the extracellular matrix after wounding: characteristics of the matrix bound enzyme. *Journal of Cellular Physiology* 1991;149(3):375-382. Not sensitivity or specificity of an identified test
- Upchurch H F, Conway E, Patterson M K et al. Cellular transglutaminase has affinity for extracellular matrix. *In Vitro Cellular & Developmental Biology - Journal of the Tissue Culture Association* 1987;23(11):795-800. Not sensitivity or specificity of an identified test
- Uray I P, Davies P J, Fesus L. Pharmacological separation of the expression of tissue transglutaminase and apoptosis after chemotherapeutic treatment of HepG2 cells. *Molecular Pharmacology* 2001;59(6):1388-1394. Not sensitivity or specificity of an identified test
- Urbanski S J. Invited review/controversial issue: Can duodenal mucosa appear normal in gluten-sensitive enteropathy (celiac disease)? *Int J Surg Pathol* 1998;6(1):49-54. Review article
- Urso G, Longo A M, Bruno C M et al. The role of the duodenal perendoscopic biopsy in the adult coeliac disease: LE ROLE DE LA BIOPSIE DUODENALE PERENDOSCOPIQUE DANS LE DIAGNOSTIC DE LA MALADIE COELIAQUE DE L'ADULTE. *Acta Endosc* 1992;22(2):153-158. Not sensitivity or specificity of an identified test
- Urven L E, Abbott U K, Erickson C A. Distribution of extracellular matrix in the migratory pathway of avian primordial germ cells. *Anat Rec* 1989;224(1):14-21. Not sensitivity or specificity of an identified test
- Urven L E, Erickson C A, Abbott U K et al. Analysis of germ line development in the chick embryo using an antimouse EC cell antibody. *Development* 1988;103(2):299-304. Not sensitivity or specificity of an identified test
- Usselmann B, Loft D E. An easy test for coeliac disease using human umbilical vein endothelial cells. *European Journal of Gastroenterology & Hepatology* 1996;8(10):947-950. Review article
- Ussher R, Yeong M L, Stace N. Coeliac disease: incidence and prevalence in Wellington 1985-92. *New Zealand Medical Journal* 1994;107(978):195-197. Not sensitivity or specificity of an identified test
- Usui T, Takagi J, Saito Y. Propolypeptide of von Willebrand factor serves as a substrate for factor XIIIa and is cross-linked to laminin. *Journal of Biological Chemistry* 1993;268(17):12311-12316. Not sensitivity or specificity of an identified test
- Vader L, Willemijn de, Ru Arnoud et al. Specificity of tissue transglutaminase explains cereal toxicity in celiac disease. *Journal of Experimental Medicine* 2002;195(5):643-649. Not sensitivity or specificity of an identified test
- Vader Willemijn, Kooy Yvonne, van Veelen et al. The gluten response in children with celiac disease is directed toward multiple gliadin and glutenin peptides. *Gastroenterology* 2002;122(7):1729-1737. Not sensitivity or specificity of an identified test
- Vahedi Kouroche, Mascart Francoise, Mary Jean et al. Reliability of antitransglutaminase antibodies as predictors of gluten-free diet compliance in adult celiac disease. *American Journal of Gastroenterology* 2003;98(5):1079-1087. Not sensitivity or specificity of an identified test
- Vainio E. Immunoblotting analysis of antigliadin antibodies in the sera of patients with dermatitis herpetiformis and gluten-sensitive enteropathy. *International Archives of Allergy and Applied Immunology* 1986;80(2):157-163. Not sensitivity or specificity of an identified test
- Vainio E, Varjonen E. Antibody response against wheat, rye, barley, oats and corn: comparison between gluten-

- sensitive patients and monoclonal antigliadin antibodies. *International Archives of Allergy and Immunology* 1995;106(2):134-138. Not sensitivity or specificity of an identified test
- Vainio E, Collin P, Lehtonen O P. Avidity of antigliadin IgA and IgG antibodies in gluten-sensitive enteropathy and dermatitis herpetiformis. *Clinical Immunology and Immunopathology* 1986;41(2):295-300. Not sensitivity or specificity of an identified test
- Vainio E, Kalimo K, Reunala T et al. Circulating IgA- and IgG-class antigliadin antibodies in dermatitis herpetiformis detected by enzyme-linked immunosorbent assay. *Archives of Dermatological Research* 1983;275(1):15-18. Not sensitivity or specificity of an identified test
- Vainio E, Kalimo K, Viander M et al. Antigliadin antibodies and gluten-free diet in dermatitis herpetiformis. *Acta Dermato-Venerologica* 1985;65(4):291-297. Not sensitivity or specificity of an identified test
- Vainio E, Kosnai I, Hallstrom O et al. Antigliadin and antireticulin antibodies in children with dermatitis herpetiformis. *Journal of Pediatric Gastroenterology and Nutrition* 1986;5(5):735-739. Not sensitivity or specificity of an identified test
- Valdimarsson T, Toss G, Lofman O et al. Three years' follow-up of bone density in adult coeliac disease: Significance of secondary hyperparathyroidism. *Scandinavian Journal of Gastroenterology* 2000;35(3):274-280. Not sensitivity or specificity of an identified test
- Valdimarsson T, Toss G, Ross I et al. Bone mineral density in coeliac disease. *Scandinavian Journal of Gastroenterology* 1994;29(5):457-461. Not sensitivity or specificity of an identified test
- Valdovinos M A, Camilleri M, Zimmerman B R. Chronic diarrhea in diabetes mellitus: mechanisms and an approach to diagnosis and treatment. *Mayo Clinic Proceedings* 1993;68(7):691-702. Not sensitivity or specificity of an identified test
- Valentino R, Savastano S, Tommaselli A P et al. Prevalence of coeliac disease in patients with thyroid autoimmunity. *Hormone Research* 1999;51(3):124-127. Not sensitivity or specificity of an identified test
- Valentino Rossella, Savastano Silvia, Maglio Maria et al. Markers of potential coeliac disease in patients with Hashimoto's thyroiditis. *European Journal of Endocrinology / European Federation of Endocrine Societies* 2002;146(4):479-483. Not sensitivity or specificity of an identified test
- Valenzuela R, Shainoff J R, DiBello P M et al. Immunoelectrophoretic and immunohistochemical characterizations of fibrinogen derivatives in atherosclerotic aortic intimas and vascular prosthesis pseudo-intimas. *American Journal of Pathology* 1992;141(4):861-880. Not sensitivity or specificity of an identified test
- Valerio G, Maiuri L, Troncone R et al. Severe clinical onset of diabetes and increased prevalence of other autoimmune diseases in children with coeliac disease diagnosed before diabetes mellitus. *Diabetologia* 2002;45(12):1719-1722. Not sensitivity or specificity of an identified test
- Valeski J E, Kumar V, Beutner E H et al. Immunology of celiac disease: tissue and species specificity of endomysial and reticulin antibodies. *International Archives of Allergy and Applied Immunology* 1990;93(1):1-7. Not sensitivity or specificity of an identified test
- Valet G, Ormerod M G, Warnecke H H et al. Sensitive three-parameter flow-cytometric detection of abnormal cells in human cervical cancers: a pilot study. *Journal of Cancer Research and Clinical Oncology* 1981;102(2):177-184. Not sensitivity or specificity of an identified test
- Valletta E A, Mastella G. Adherence to gluten-free diet and serum antigliadin antibodies in celiac disease. *Digestion* 1990;47(1):20-23. Not sensitivity or specificity of an identified test
- Valletta E A, Trevisiol D, Mastella G. IgA anti-gliadin antibodies in the monitoring of gluten challenge in celiac disease. *Journal of Pediatric Gastroenterology and Nutrition* 1990;10(2):169-173. Not sensitivity or specificity of an identified test
- Valnickova Z, Enghild J J. Human procarboxypeptidase U, or thrombin-activable fibrinolysis inhibitor, is a substrate for transglutaminases. Evidence for transglutaminase-catalyzed cross-linking to fibrin. *Journal of Biological Chemistry* 1998;273(42):27220-27224. Not sensitivity or specificity of an identified test
- Van Beers E H, Einerhand A W C, Taminiou J A J M et al. Pediatric duodenal biopsies: Mucosal morphology and glycohydrolase expression do not change along the duodenum. *Journal of Pediatric Gastroenterology and Nutrition* 1998;26(2):186-193. Not sensitivity or specificity of an identified test
- van Belzen M J, Mulder C J, Pearson P L et al. The tissue transglutaminase gene is not a primary factor predisposing to celiac disease. *American Journal of Gastroenterology* 2001;96(12):3337-3340. Not sensitivity or specificity of an identified test
- Van Belzen, Martine J, Meijer Jos W R et al. A major non-HLA locus in celiac disease maps to chromosome 19. *Gastroenterology* 2003;125(4):1032-1041. Improper control group
- Van de, Kamer J H. Coeliac disease: A historical review. *Ir Med J* 1974;67(15):405-406. Not sensitivity or specificity of an identified test

- van de, Staak W J, van Tongeren J H. Dermatitis herpetiformis and pathological changes of the mucous membrane of the small intestine. *Dermatologica* 1970;140(4):231-241. Not sensitivity or specificity of an identified test
- van de, Wal Y, Kooy Y M et al. Peptide binding characteristics of the coeliac disease-associated DQ(alpha1\*0501, beta1\*0201) molecule. *Immunogenetics* 1996;44(4):246-253. Not sensitivity or specificity of an identified test
- van de, Wal Y, Kooy Y M et al. Unique peptide binding characteristics of the disease-associated DQ(alpha 1\*0501, beta 1\*0201) vs the non-disease-associated DQ(alpha 1\*0201, beta 1\*0202) molecule. *Immunogenetics* 1997;46(6):484-492. Not sensitivity or specificity of an identified test
- van de, Wal Y, Kooy Y M et al. Small intestinal T cells of celiac disease patients recognize a natural pepsin fragment of gliadin. *Proceedings of the National Academy of Sciences of the United States of America* 1998;95(17):10050-10054. Not sensitivity or specificity of an identified test
- van de, Wal Y, Kooy Y M et al. Glutenin is involved in the gluten-driven mucosal T cell response. *European Journal of Immunology* 1999;29(10):3133-3139. Not sensitivity or specificity of an identified test
- van de, Wal Y, Kooy Y et al. Selective deamidation by tissue transglutaminase strongly enhances gliadin-specific T cell reactivity. *Journal of Immunology (Baltimore, Md.-1950)* 1998;161(4):1585-1588. Not sensitivity or specificity of an identified test
- van de, Wal Y, Kooy Y et al. Cutting edge: Selective deamidation by tissue transglutaminase strongly enhances gliadin-specific T cell reactivity. *J Immunol* 1998;161(4):1585-1588. Not sensitivity or specificity of an identified test
- van de, Wal Y, Kooy Y et al. Coeliac disease: it takes three to tango!. *Gut* 2000;46(5):734-737. Review article
- van den, Bosch H C, Tham R T et al. Celiac disease: small-bowel enteroclysis findings in adult patients treated with a gluten-free diet. *Radiology* 1996;201(3):803-808. Not sensitivity or specificity of an identified test
- Van Der, Burg S H, Rensing M E et al. Natural T-helper immunity against human papillomavirus type 16 (HPV16) E7-derived peptide epitopes in patients with HPV16-positive cervical lesions: Identification of 3 human leukocyte antigen class II-restricted epitopes. *Int J Cancer* 2001;91(5):612-618. Not sensitivity or specificity of an identified test
- van der, Zee J M, Heurkens A H et al. Characterization of anti-endothelial antibodies in patients with rheumatoid arthritis complicated by vasculitis. *Clinical and Experimental Rheumatology* 1991;9(6):589-594. Not sensitivity or specificity of an identified test
- van der, Zee J M, Miltenburg A M et al. Antiendothelial cell antibodies in systemic lupus erythematosus: enhanced antibody binding to interleukin-1-stimulated endothelium. *International Archives of Allergy and Immunology* 1994;104(2):131-136. Not sensitivity or specificity of an identified test
- van Elburg R M, Uil J J, Mulder C J et al. Intestinal permeability in patients with coeliac disease and relatives of patients with coeliac disease. *Gut* 1993;34(3):354-357. Not sensitivity or specificity of an identified test
- van Lith M, van Ham M, Neeftjes J. Novel polymorphisms in HLA-DOA and HLA-DOB in B-cell malignancies. *Immunogenetics* 2002;54(8):591-595. Not sensitivity or specificity of an identified test
- Van Mook W N K A, Bourass-Bremer I H D N, Bos L P et al. The outcome of esophagogastroduodenoscopy (EGD) in asymptomatic outpatients with iron deficiency anemia after a negative colonoscopy. *Eur J Intern Med* 2001;12(2):122-126. Not sensitivity or specificity of an identified test
- van Rood J J. HLA as regulator. *Annals of the Rheumatic Diseases* 1984;43(5):665-672. Not sensitivity or specificity of an identified test
- van Rood J J. The impact of the major histocompatibility complex on graft survival and disease susceptibility. *Genetics* 1975;79 Suppl277-291. Not sensitivity or specificity of an identified test
- van Spreeuwel J P, Meijer C J, Rosekrans P C et al. Immunoglobulin-containing cells in gastrointestinal pathology--diagnostic applications. *Pathology Annual* 1986;21(Pt 1):295-310. Not sensitivity or specificity of an identified test
- Van Stirum J, Baerlocher K, Fanconi A. The incidence of coeliac disease in children in Switzerland. *Helv Paediatr Acta* 1982;37(5):421-430. Not sensitivity or specificity of an identified test
- van Straaten E A, Koster-Kamphuis L, Bovee-Oudenhoven I M et al. Increased urinary nitric oxide oxidation products in children with active coeliac disease. *Acta Paediatrica (Oslo, Norway - 1992)* 1999;88(5):528-531. Not sensitivity or specificity of an identified test
- van der, Sluijs V, Vermes I. IgG autoantibodies against tissue transglutaminase in relation to antinuclear antibodies. *Clinical Chemistry* 2001;47(5):952-954. Not sensitivity or specificity of an identified test
- Vancikova Z, Chlumecky V, Sokol D et al. The serologic screening for celiac disease in the general population (blood donors) and in some high-risk groups of adults (patients with autoimmune diseases, osteoporosis and infertility) in the Czech republic. *Folia Microbiologica*

2002;47(6):753-758. Not sensitivity or specificity of an identified test

Vancikova Z, Kocna P, Tuckova L et al. Characterization of human, mouse and rabbit anti-gliadin antibodies by ELISA and western blotting. *Folia Microbiologica* 1995;40(6):659-664. Not sensitivity or specificity of an identified test

Vandermeeren M, Daneels G, Bergers M et al. Development and application of monoclonal antibodies against SKALP/elafin and other trappin family members. *Arch Dermatol Res* 2001;293(7):343-349. Not sensitivity or specificity of an identified test

Vardaman C, Albores-Saavedra J. Clear cell carcinomas of the gallbladder and extrahepatic bile ducts. *American Journal of Surgical Pathology* 1995;19(1):91-99. Not sensitivity or specificity of an identified test

Variend S, Phillips A D, Walker-Smith J A. The small intestinal mucosal biopsy in childhood. *Perspectives in Pediatric Pathology* 1984;8(1):57-78. Not sensitivity or specificity of an identified test

Variend S, Placzek M, Raafat F et al. Small intestinal mucosal fat in childhood enteropathies. *Journal of Clinical Pathology* 1984;37(4):373-377. Not sensitivity or specificity of an identified test

Varjonen E, Kalimo K, Savolainen J et al. IgA and IgG binding components of wheat, rye, barley and oats recognized by immunoblotting analysis with sera from adult atopic dermatitis patients. *International Archives of Allergy and Immunology* 1996;111(1):55-63. Not sensitivity or specificity of an identified test

Varjonen E, Vainio E, Kalimo K. Antigliadin IgE--indicator of wheat allergy in atopic dermatitis. *Allergy* 2000;55(4):386-391. Not sensitivity or specificity of an identified test

Varkonyi A, Boda M, Endreffy E et al. Coeliac disease: always something to discover. *Scandinavian Journal of Gastroenterology. Supplement* 1998;228:122-129. Not sensitivity or specificity of an identified test

Varljen J, Persic M, Milin C et al. Intestinal alkaline phosphatase and disaccharidases in children with gluten enteropathy. *Acta Pharm* 1994;44(4):319-324. Not sensitivity or specificity of an identified test

Vartdal F, Johansen B H, Friede T et al. The peptide binding motif of the disease associated HLA-DQ (alpha 1\* 0501, beta 1\* 0201) molecule. *European Journal of Immunology* 1996;26(11):2764-2772. Not sensitivity or specificity of an identified test

Vasmant D, Feldmann G, Fontaine J L. Ultrastructural localization of concanavalin a surface receptors on brush-border enterocytes in normal children and during coeliac disease. *Pediatric Research* 1982;16(6):441-445. Not

sensitivity or specificity of an identified test

Vatay Agnes, Rajczy Katalin, Pozsonyi Eva et al. Differences in the genetic background of latent autoimmune diabetes in adults (LADA) and type 1 diabetes mellitus. *Immunology Letters* 2002;84(2):109-115. Not sensitivity or specificity of an identified test

Vazquez H, Cabanne A, Sugai E et al. Serological markers identify histologically latent coeliac disease among first-degree relatives. *European Journal of Gastroenterology & Hepatology* 1996;8(1):15-21. Not sensitivity or specificity of an identified test

Vazquez H, Sugai E, Pedreira S et al. Screening for asymptomatic celiac sprue in families. *Journal of Clinical Gastroenterology* 1995;21(2):130-133. Improper control group

Vecchi M, Folli C, Donato M F et al. High rate of positive anti-tissue transglutaminase antibodies in chronic liver disease. Role of liver decompensation and of the antigen source. *Scandinavian Journal of Gastroenterology* 2003;38(1):50-54. Not sensitivity or specificity of an identified test

Vecchi M, Torgano G, De Franchis R et al. Evidence of altered structural and secretory glycoconjugates in the jejunal mucosa of patients with gluten sensitive enteropathy and subtotal villous atrophy. *Gut* 1989;30(6):804-810. Not sensitivity or specificity of an identified test

Veitch A M, Kelly P, Zulu I S et al. Tropical enteropathy: a T-cell-mediated crypt hyperplastic enteropathy. *European Journal of Gastroenterology & Hepatology* 2001;13(10):1175-1181. Not sensitivity or specificity of an identified test

Velasco P T, Karush F, Lorand L. Transamidating activities of factor XIIIa and of transglutaminases, measured by an ELISA procedure. *Biochemical and Biophysical Research Communications* 1988;152(2):505-511. Not sensitivity or specificity of an identified test

Velluzzi F, Caradonna A, Boy M F et al. Thyroid and celiac disease: clinical, serological, and echographic study. *American Journal of Gastroenterology* 1998;93(6):976-979. Not sensitivity or specificity of an identified test

Veloso F T, Saleiro J V. Small-bowel changes in recurrent ulceration of the mouth. *Hepato-Gastroenterology* 1987;34(1):36-37. Not sensitivity or specificity of an identified test

Ventura A, Martelossi S. The old and new coeliac disease. *Eur J Pediatr Dermatol* 1995;5(2):87-94. Not sensitivity or specificity of an identified test

Ventura A, Facchini S, Amantidu C et al. Searching for celiac disease in pediatric general practice. *Clin Pediatr* 2001;40(10):575-577. Not sensitivity or specificity of an

identified test

Venturini I, Cosenza R, Miglioli L et al. Adult celiac disease and primary sclerosing cholangitis: two case reports. *Hepato-Gastroenterology* 1998;45(24):2344-2347. Not sensitivity or specificity of an identified test

Verbeke S, Gotteland M, Fernandez M et al. Basement membrane and connective tissue proteins in intestinal mucosa of patients with coeliac disease. *Journal of Clinical Pathology* 2002;55(6):440-445. Not sensitivity or specificity of an identified test

Verderio E A M, Telci D, Okoye A et al. A Novel RGD-independent Cell Adhesion Pathway Mediated by Fibronectin-bound Tissue Transglutaminase Rescues Cells from Anoikis. *J Biol Chem* 2003;278(43):42604-42614. Not sensitivity or specificity of an identified test

Verderio E, Coombes A, Jones R A et al. Role of the cross-linking enzyme tissue transglutaminase in the biological recognition of synthetic biodegradable polymers. *Journal of Biomedical Materials Research* 2001;54(2):294-304. Not sensitivity or specificity of an identified test

Verderio E, Nicholas B, Gross S et al. Regulated expression of tissue transglutaminase in Swiss 3T3 fibroblasts: effects on the processing of fibronectin, cell attachment, and cell death. *Experimental Cell Research* 1998;239(1):119-138. Not sensitivity or specificity of an identified test

Veres G, Helin T, Arato A et al. Increased expression of intercellular adhesion molecule-1 and mucosal adhesion molecule alpha4beta7 integrin in small intestinal mucosa of adult patients with food allergy. *Clinical Immunology (Orlando, Fla.)* 2001;99(3):353-359. Not sensitivity or specificity of an identified test

Verge C F, Gianani R, Kawasaki E et al. Prediction of type I diabetes in first-degree relatives using a combination of insulin, GAD, and ICA512bdc/IA-2 autoantibodies. *Diabetes* 1996;45(3 SUPPL.):926-933. Not sensitivity or specificity of an identified test

Verge C F, Howard N J, Rowley M J et al. Anti-glutamate decarboxylase and other antibodies at the onset of childhood IDDM: a population-based study. *Diabetologia* 1994;37(11):1113-1120. Not sensitivity or specificity of an identified test

Verkarre V, Asnafi V, Lecomte T et al. Refractory coeliac sprue is a diffuse gastrointestinal disease. *Gut* 2003;52(2):205-211. Not sensitivity or specificity of an identified test

Verkasalo M. HLA and lymphocyte receptors for gliadin peptides. *Klinische Padiatrie* 1985;197(4):334-335. Not sensitivity or specificity of an identified test

Verkasalo M A. Adherence of gliadin fractions to lymphocytes in coeliac disease. *Lancet* 1982;1(8286):1384-

1386. Not sensitivity or specificity of an identified test

Verkasalo M A, Arato A, Savilahti E et al. Effect of diet and age on jejunal and circulating lymphocyte subsets in children with coeliac disease: persistence of CD4-8-intraepithelial T cells through treatment. *Gut* 1990;31(4):422-425. Not sensitivity or specificity of an identified test

Verkasalo M, Kuitunen P, Leisti S et al. Growth failure from symptomless coeliac disease. A study of 14 patients. *Helvetica Paediatrica Acta* 1978;33(6):489-495. Not sensitivity or specificity of an identified test

Verkasalo M, Kuitunen P, Tiilikainen A et al. HLA antigens in intestinal cow's milk allergy. *Acta Paediatrica Scandinavica* 1983;72(1):19-22. Not sensitivity or specificity of an identified test

Verkasalo M, Tiilikainen A, Kuitunen P et al. HLA antigens and atopy in children with coeliac disease. *Gut* 1983;24(4):306-310. Not sensitivity or specificity of an identified test

Vermeer B J, Lindeman J, Harst-Oostveen C J et al. The immunoglobulin-bearing cells in the lamina propria and the clinical response to a gluten-free diet in dermatitis herpetiformis. *Archives for Dermatological Research. Archiv Fur Dermatologische Forschung* 1977;258(3):223-230. Not sensitivity or specificity of an identified test

Vermelin L, Lecolle S, Septier D et al. Apoptosis in human and rat dental pulp. *European Journal of Oral Sciences* 1996;104(5-6):547-553. Not sensitivity or specificity of an identified test

Verreck F A W, Van De, Poel A et al. Identification of an HLA-DQ2 peptide binding motif and HLA-DPw3-hound self-peptide by pool sequencing. *Eur J Immunol* 1994;24(2):375-379. Not sensitivity or specificity of an identified test

Vesy C J, Greenson J K, Papp A C et al. Evaluation of coeliac disease biopsies for adenovirus 12 DNA using a multiplex polymerase chain reaction. *Modern Pathology - an Official Journal of the United States and Canadian Academy of Pathology, Inc* 1993;6(1):61-64. Not sensitivity or specificity of an identified test

Veza R, Habib A, FitzGerald G A. Differential signaling by the thromboxane receptor isoforms via the novel GTP-binding protein, Gh. *Journal of Biological Chemistry* 1999;274(18):12774-12779. Not sensitivity or specificity of an identified test

Victora C G, Barros F C, Horta B L et al. Short-term benefits of catch-up growth for small-for-gestational-age infants. *International Journal of Epidemiology* 2001;30(6):1325-1330. Not sensitivity or specificity of an identified test

- Vielh P, Validire P, Kheirallah S et al. Paget's disease of the nipple without clinically and radiologically detectable breast tumor. Histochemical and immunohistochemical study of 44 cases. *Pathology, Research and Practice* 1993;189(2):150-155. Not sensitivity or specificity of an identified test
- Viken H D, Paulsen G, Drover S et al. Influence on antibody recognition of amino acid substitutions in the cleft of HLA-DQ2 molecules: Suggestive evidence of peptide-dependent epitopes. *Hum Immunol* 1995;44(2):63-69. Not sensitivity or specificity of an identified test
- Viken H D, Paulsen G, Sollid L M et al. Characterization of an HLA-DQ2-specific monoclonal antibody. Influence of amino acid substitutions in DQ beta 1\*0202. *Human Immunology* 1995;42(4):319-327. Not sensitivity or specificity of an identified test
- Viken H D, Thoresen A B, Thorsby E et al. The cytotoxic HLA-DQ3 reactive human hybridoma antibody 4166 that may distinguish DQ7+8 from DQ9. *Hum Immunol* 1995;42(4):281-288. Not sensitivity or specificity of an identified test
- Viken H D, Thorsby E, Gaudernack G. Characterization and epitope mapping of four HLA class II reactive mouse monoclonal antibodies using transfected L cells and human cells transfected with mutants of DQB1(\*)0302. *Tissue Antigens* 1995;45(4):250-257. Not sensitivity or specificity of an identified test
- Vila TJ, Medina ZM, Cusi S, V et al. Computerized morphometric analysis of jejunal biopsy: A simple and useful method for the routine diagnosis of coeliac disease. *J Clin Nutr Gastroenterol* 1989; 4(4):173-182. Unable to obtain full article
- Villanacci V, Facchetti F, Pillan N et al. Expression of cell adhesion molecules in jejunum biopsies of children with coeliac disease. *Italian Journal of Gastroenterology* 1993;25(3):109-116. Not sensitivity or specificity of an identified test
- Visakorpi J K. The diagnosis of coeliac disease. *Ann Nestle* 1993;51(2):43-49. Not sensitivity or specificity of an identified test
- Visakorpi J K, Kuitunen P, Savilahti E. Frequency and nature of relapses in children suffering from the malabsorption syndrome with gluten intolerance. *Acta Paediatrica Scandinavica* 1970;59(5):481-486. Not sensitivity or specificity of an identified test
- Viskari H, Paronen J, Keskinen P et al. Humoral beta-cell autoimmunity is rare in patients with the congenital rubella syndrome. *Clinical and Experimental Immunology* 2003;133(3):378-383. Not sensitivity or specificity of an identified test
- Visser H, Vos K, Zanelli E et al. Sarcoid arthritis: Clinical characteristics, diagnostic aspects, and risk factors. *Ann Rheum Dis* 2002;61(6):499-504. Not sensitivity or specificity of an identified test
- Vitoria J C. Expert's comments. *J Postgrad Med* 2003;49(1):24 Not sensitivity or specificity of an identified test
- Vitoria J C, Arrieta A, Arranz C et al. Antibodies to gliadin, endomysium, and tissue transglutaminase for the diagnosis of celiac disease. *Journal of Pediatric Gastroenterology and Nutrition* 1999;29(5):571-574. Improper control group
- Vitoria J C, Arrieta A, Astigarraga I et al. Use of serological markers as a screening test in family members of patients with celiac disease. *Journal of Pediatric Gastroenterology and Nutrition* 1994;19(3):304-309. Not sensitivity or specificity of an identified test
- Vitoria J C, Castano L, Rica I et al. Association of insulin-dependent diabetes mellitus and celiac disease: a study based on serologic markers. *Journal of Pediatric Gastroenterology and Nutrition* 1998;27(1):47-52. Not sensitivity or specificity of an identified test
- Vivas Santiago, Ruiz de, Morales Jose M et al. Human recombinant anti-transglutaminase antibody testing is useful in the diagnosis of silent coeliac disease in a selected group of at-risk patients. *European Journal of Gastroenterology & Hepatology* 2003;15(5):479-483. Not sensitivity or specificity of an identified test
- Vjero Katerina, Martucci Susi, Alvisi Costanza et al. Defining a proper setting for endoscopy in coeliac disease. *European Journal of Gastroenterology & Hepatology* 2003;15(6):675-678. Not sensitivity or specificity of an identified test
- Vogelsang H, Hanel S, Steiner B et al. Diagnostic duodenal bulb biopsy in celiac disease. *Endoscopy* 2001;33(4):336-340. Not sensitivity or specificity of an identified test
- Vogelsang H, Oberhuber G, Wyatt J. Lymphocytic gastritis and gastric permeability in patients with celiac disease. *Gastroenterology* 1996;111(1):73-77. Not sensitivity or specificity of an identified test
- Vogelsang H, Schwarzenhofer M, Oberhuber G. Changes in gastrointestinal permeability in celiac disease. *Digestive Diseases (Basel, Switzerland)* 1998;16(6):333-336. Not sensitivity or specificity of an identified test
- Vogelsang H, Schwarzenhofer M, Granditsch G et al. In vitro production of endomysial antibodies in cultured duodenal mucosa from patients with celiac disease. *American Journal of Gastroenterology* 1999;94(4):1057-1061. Not sensitivity or specificity of an identified test
- Vogelsang H, Schwarzenhofer M, Steiner B et al. In vivo and in vitro permeability in coeliac disease. *Alimentary Pharmacology & Therapeutics* 2001;15(9):1417-1425. Not sensitivity or specificity of an identified test

Vogelsang H, Wyatt J, Penner E et al. Screening for celiac disease in first-degree relatives of patients with celiac disease by lactulose/mannitol test. *American Journal of Gastroenterology* 1995;90(10):1838-1842. Not sensitivity or specificity of an identified test

Vogelsang Harald, Panzer Simon, Mayr Wolfgang R et al. Distribution of HLA class I alleles differs in celiac disease patients according to age of onset. *Digestive Diseases and Sciences* 2003;48(3):611-614. Not sensitivity or specificity of an identified test

Vollberg T M, George M D, Nervi C et al. Regulation of type I and type II transglutaminase in normal human bronchial epithelial and lung carcinoma cells. *American Journal of Respiratory Cell and Molecular Biology* 1992;7(1):10-18. Not sensitivity or specificity of an identified test

Volokhina E B, Hulshof R, Haanen C et al. Tissue transglutaminase mRNA expression in apoptotic cell death. *Apoptosis* 2003;8(6):673-679. Not sensitivity or specificity of an identified test

Volta U, Bellentani S, Bianchi F B et al. High prevalence of celiac disease in Italian general population. *Digestive Diseases and Sciences* 2001;46(7):1500-1505. Not sensitivity or specificity of an identified test

Volta U, Bonazzi C, Baldoni A M et al. Clinical presentation of adult coeliac disease. *Ann Med Interne (Paris)* 1988;139(2):123-124. Not sensitivity or specificity of an identified test

Volta U, Bonazzi C, Lazzari R et al. Immunoglobulin A anti-gliadin antibodies in jejunal juice: markers of severe intestinal damage in coeliac children. *Digestion* 1988;39(1):35-39. Not sensitivity or specificity of an identified test

Volta U, Bonazzi C, Pisi E et al. Anti-gliadin and antireticulin antibodies in coeliac disease and at onset of diabetes in children. *Lancet* 1987;2(8566):1034-1035. Not sensitivity or specificity of an identified test

Volta U, Cassani F, De Franchis R et al. Antibodies to gliadin in adult coeliac disease and dermatitis herpetiformis. *Digestion* 1984;30(4):263-270. Serology <1990

Volta U, Corazza G R, Frisoni M et al. IgA anti-gliadin antibodies and persistence of jejunal lesions in adult coeliac disease. *Digestion* 1990;47(2):111-114. Not sensitivity or specificity of an identified test

Volta U, De Franceschi L, Lari F et al. Coeliac disease hidden by cryptogenic hypertransaminasaemia. *Lancet* 1998;352(9121):26-29. Not sensitivity or specificity of an identified test

Volta U, De Franceschi L, Molinaro N et al. Frequency and

significance of anti-gliadin and anti-endomysial antibodies in autoimmune hepatitis. *Digestive Diseases and Sciences* 1998;43(10):2190-2195. Not sensitivity or specificity of an identified test

Volta U, De Franceschi L, Molinaro N et al. Organ-specific autoantibodies in coeliac disease: do they represent an epiphenomenon or the expression of associated autoimmune disorders?. *Italian Journal of Gastroenterology and Hepatology* 1997;29(1):18-21. Not sensitivity or specificity of an identified test

Volta U, De Giorgio R, Petrolini N et al. Clinical findings and anti-neuronal antibodies in coeliac disease with neurological disorders. *Scandinavian Journal of Gastroenterology* 2002;37(11):1276-1281. Not sensitivity or specificity of an identified test

Volta U, Granito A, De Franceschi L et al. Anti tissue transglutaminase antibodies as predictors of silent coeliac disease in patients with hypertransaminasaemia of unknown origin. *Digestive and Liver Disease - Official Journal of the Italian Society of Gastroenterology and the Italian Association for the Study of the Liver* 2001;33(5):420-425. Not sensitivity or specificity of an identified test

Volta U, Lazzari R, Bianchi F B et al. Antibodies to dietary antigens in coeliac disease. *Scandinavian Journal of Gastroenterology* 1986;21(8):935-940. Not sensitivity or specificity of an identified test

Volta U, Lazzari R, Guidetti C S et al. Multicenter study on the reproducibility of anti-gliadin (AGA) and anti-endomysial antibodies (EmA) in coeliac sprue screening. The Tenue Club Group. *Journal of Clinical Gastroenterology* 1994;19(1):81-82. Improper control group

Volta U, Lenzi M, Lazzari R et al. Antibodies to gliadin detected by immunofluorescence and a micro-ELISA method: markers of active childhood and adult coeliac disease. *Gut* 1985;26(7):667-671. Improper control group

Volta U, Molinaro N, De Franceschi L et al. Human umbilical cord as substrate for IgA anti-endomysial antibodies allows large scale screening for coeliac sprue. *Journal of Clinical Gastroenterology* 1996;23(1):18-20. Improper control group

Volta U, Molinaro N, De Franceschi L et al. IFL- and ELISA-anti-gliadin antibodies recognize different antigenic reactivities from those of R1-antireticulin and anti-endomysial antibodies. *Italian Journal of Gastroenterology* 1995;27(2):64-68. Not sensitivity or specificity of an identified test

Volta U, Molinaro N, De Franchis R et al. Correlation between IgA anti-endomysial antibodies and subtotal villous atrophy in dermatitis herpetiformis. *Journal of Clinical Gastroenterology* 1992;14(4):298-301. Not sensitivity or specificity of an identified test

Volta U, Molinaro N, Fratangelo D et al. IgA antibodies to jejunum. Specific immunity directed against target organ of gluten-sensitive enteropathy. *Digestive Diseases and Sciences* 1994;39(9):1924-1929. Not sensitivity or specificity of an identified test

Volta U, Molinaro N, Fratangelo D et al. IgA subclass antibodies to gliadin in serum and intestinal juice of patients with coeliac disease. *Clinical and Experimental Immunology* 1990;80(2):192-195. Improper control group

Volta U, Molinaro N, Fusconi M et al. IgA antiendomysial antibody test. A step forward in celiac disease screening. *Digestive Diseases and Sciences* 1991;36(6):752-756. Improper control group

Volta U, Ravaglia G, Granito A et al. Coeliac disease in patients with autoimmune thyroiditis. *Digestion* 2001;64(1):61-65. Not sensitivity or specificity of an identified test

Volta Umberto, Rodrigo Luis, Granito Alessandro et al. Celiac disease in autoimmune cholestatic liver disorders. *American Journal of Gastroenterology* 2002;97(10):2609-2613. Not sensitivity or specificity of an identified test

Voutilainen M, Juhola M, Farkkila M et al. Gastric metaplasia and chronic inflammation at the duodenal bulb mucosa. *Digestive and Liver Disease - Official Journal of the Italian Society of Gastroenterology and the Italian Association for the Study of the Liver* 2003;35(2):94-98. Not sensitivity or specificity of an identified test

Vuoristo M, Miettinen T A. Enhanced synthesis of cholesterol and its precursors in jejunal mucosa in coeliac disease. *Gut* 1986;27(4):399-404. Not sensitivity or specificity of an identified test

Vuoristo M, Tarpila S, Miettinen T A. Serum lipids and fecal steroids in patients with celiac disease: Effects of gluten-free diet and cholestyramine. *Gastroenterology* 1980;78(6):1518-1525. Not sensitivity or specificity of an identified test

Wachtel M S, Thaler H T, Gangi M D et al. Immunoperoxidase staining of cervicovaginal smears after radiotherapy. *Acta Cytologica* 1992;36(3):305-309. Not sensitivity or specificity of an identified test

Wade J A F, Hurley C K, Hastings A et al. Combinatorial diversity in DR2 haplotypes. *Tissue Antigens* 1993;41(3):113-118. Not sensitivity or specificity of an identified test

Wahab P J, Crusius J B, Meijer J W et al. Gluten challenge in borderline gluten-sensitive enteropathy. *American Journal of Gastroenterology* 2001;96(5):1464-1469. Not sensitivity or specificity of an identified test

Wahab P J, Crusius J B, Meijer J W et al. Cyclosporin in the treatment of adults with refractory coeliac disease--an

open pilot study. *Alimentary Pharmacology & Therapeutics* 2000;14(6):767-774. Not sensitivity or specificity of an identified test

Wahab P J, Meijer J W R, Goerres M S et al. Coeliac disease: changing views on gluten-sensitive enteropathy. *Scandinavian Journal of Gastroenterology. Supplement* 2002;(236):60-65. Not sensitivity or specificity of an identified test

Wahab P J, Peters W H, Roelofs H M et al. Glutathione S-transferases in small intestinal mucosa of patients with coeliac disease. *Japanese Journal of Cancer Research - Gann* 2001;92(3):279-284. Not sensitivity or specificity of an identified test

Wahab Peter J, Meijer Jos W R, Mulder Chris J J. Histologic follow-up of people with celiac disease on a gluten-free diet: slow and incomplete recovery. *American Journal of Clinical Pathology* 2002;118(3):459-463. Not sensitivity or specificity of an identified test

Wahab Peter J, Meijer Jos W R, Dumitra Daniela et al. Coeliac disease: more than villous atrophy. *Romanian Journal of Gastroenterology* 2002;11(2):121-127. Not sensitivity or specificity of an identified test

Wahnschaffe U, Stockmann M, Daum S et al. Intestinal antibodies against gliadin, tissue-transglutaminase, beta-lactoglobulin, and ovalbumin in patients with irritable bowel syndrome. *Annals of the New York Academy of Sciences* 1998;859:280-284. Not sensitivity or specificity of an identified test

Wahnschaffe U, Ullrich R, Riecken E O et al. Celiac disease-like abnormalities in a subgroup of patients with irritable bowel syndrome. *Gastroenterology* 2001;121(6):1329-1338. Not sensitivity or specificity of an identified test

Wakita H, Takigawa M. Activation of epidermal growth factor receptor promotes late terminal differentiation of cell-matrix interaction-disrupted keratinocytes. *Journal of Biological Chemistry* 1999;274(52):37285-37291. Not sensitivity or specificity of an identified test

Walia B N, Mehta S, Gupte S P. Celiac disease. *Indian Pediatrics* 1972;9(1):16-19. Not sensitivity or specificity of an identified test

Walker A M, Montgomery D W, Saraiya S et al. Prolactin-immunoglobulin G complexes from human serum act as costimulatory ligands causing proliferation of malignant B lymphocytes. *Proceedings of the National Academy of Sciences of the United States of America* 1995;92(8):3278-3282. Not sensitivity or specificity of an identified test

Walker Michael G. Z39Ig is co-expressed with activated macrophage genes. *Biochimica Et Biophysica Acta* 2002;1574(3):387-390. Not sensitivity or specificity of an identified test

- Walker Smith J, Kilby A. Small intestinal histology in coeliac disease. *Lancet* 1975;2(7925):132 Not sensitivity or specificity of an identified test
- Walker-Smith J. Cow's milk protein intolerance. Transient food intolerance of infancy. *Archives of Disease in Childhood* 1975;50(5):347-350. Not sensitivity or specificity of an identified test
- Walker-Smith J. Transient gluten intolerance. *Archives of Disease in Childhood* 1970;45(242):523-526. Not sensitivity or specificity of an identified test
- Walker-Smith J. Food sensitive enteropathy: Overview and update. *Acta Paediatr Jpn Overs Ed* 1994;36(5):545-549. Not sensitivity or specificity of an identified test
- Walker-Smith J A. Small bowel morphology in childhood. *Medical Journal of Australia* 1969;1(8):382-387. Not sensitivity or specificity of an identified test
- Walker-Smith J A. Celiac disease and Down syndrome. *Journal of Pediatrics* 2000;137(6):743-744. Not sensitivity or specificity of an identified test
- Walker-Smith J A. Immune function of small bowel and its related diseases. *Acta Paediatr Taiwan* 2000;41(4):177-178. Not sensitivity or specificity of an identified test
- Walker-Smith J A, Grigor W. Coeliac disease in a diabetic child. *Lancet* 1969;1(7603):1021 Not sensitivity or specificity of an identified test
- Walker-Smith J A, Reye R D. Small intestinal morphology in aboriginal children. *Australian and New Zealand Journal of Medicine* 1971;1(4):377-384. Not sensitivity or specificity of an identified test
- Walker-Smith J A, Guandalini S, Schmitz J et al. Revised criteria for diagnosis of coeliac disease. *Arch Dis Child* 1990;65(8):909-911. Serology <1990
- Walker-Smith J A, Vines R, Grigor W. Coeliac disease and diabetes. *Lancet* 1969;2(7621):650 Not sensitivity or specificity of an identified test
- Walker-Smith J, Kilby A. Letter: Small-intestinal histology in coeliac disease. *Lancet* 1975;2(7925):132 Not sensitivity or specificity of an identified test
- Walker-Smith J, Walker W A. The development of pediatric gastroenterology: A historical overview. *Pediatric Research* 2003;53(4):706-715. Not sensitivity or specificity of an identified test
- Walkowiak J, Herzig K H. Fecal elastase-1 is decreased in villous atrophy regardless of the underlying disease. *European Journal of Clinical Investigation* 2001;31(5):425-430. Not sensitivity or specificity of an identified test
- Wall A J, Levinson J D, Refetoff S. Hyperthyroidism and adult celiac disease. *American Journal of Gastroenterology* 1973;60(4):387-393. Not sensitivity or specificity of an identified test
- Wallaschofski H, Meyer A, Tuschy U et al. HLA-DQA1\*0301-associated susceptibility for autoimmune polyglandular syndrome type II and III. *Hormone and Metabolic Research. Hormon- Und Stoffwechselforschung. Hormones Et Metabolisme* 2003;35(2):120-124. Not sensitivity or specificity of an identified test
- Walsh C H, Cooper B T, Wright A D et al. Diabetes mellitus and coeliac disease: a clinical study. *Quarterly Journal of Medicine* 1978;47(185):89-100. Not sensitivity or specificity of an identified test
- Walsh L J, Goerdt S, Pober J S et al. MS-1 sinusoidal endothelial antigen is expressed by factor XIIIa+, HLA-DR+ dermal perivascular dendritic cells. *Laboratory Investigation* 1991; *A Journal of Technical Methods and Pathology*; 65(6):732-741. Not sensitivity or specificity of an identified test
- Walter M, Albert E, Conrad M et al. IDDM2/insulin VNTR modifies risk conferred by IDDM1/HLA for development of Type 1 diabetes and associated autoimmunity. *Diabetologia* 2003;46(5):712-720. Not sensitivity or specificity of an identified test
- Walters J R, Banks L M, Butcher G P et al. Detection of low bone mineral density by dual energy x ray absorptiometry in unsuspected suboptimally treated coeliac disease. *Gut* 1995;37(2):220-224. Not sensitivity or specificity of an identified test
- Walz R, Koch H K. Malignant pleural mesothelioma: some aspects of epidemiology, differential diagnosis and prognosis. Histological and immunohistochemical evaluation and follow-up of mesotheliomas diagnosed from 1964 to January 1985. *Pathology, Research and Practice* 1990;186(1):124-134. Not sensitivity or specificity of an identified test
- Wan X H, Lee E H, Koh H J et al. Enhanced expression of transglutaminase 2 in anterior polar cataracts and its induction by TGF-beta in vitro. *British Journal of Ophthalmology* 2002;86(11):1293-1298. Not sensitivity or specificity of an identified test
- Wang M, Kim I G, Steinert P M et al. Assignment of the human transglutaminase 2 (TGM2) and transglutaminase 3 (TGM3) genes to chromosome 20q11.2. *Genomics* 1994;23(3):721-722. Not sensitivity or specificity of an identified test
- Wang N, Dumot J A, Achkar E et al. Colonic epithelial lymphocytosis without a thickened subepithelial collagen table: a clinicopathologic study of 40 cases supporting a heterogeneous entity. *American Journal of Surgical Pathology* 1999;23(9):1068-1074. Not sensitivity or specificity of an identified test

- Wankiewicz Anna, Iwan-Zietek Iza, Gwiedzinski Zenon et al. Levels of F(1+2) prothrombin fragments and thrombin - antithrombin III (TAT) complexes in patients with dermatitis herpetiformis. *Medical Science Monitor - International Medical Journal of Experimental and Clinical Research* 2002;8(8):Br324-Br327. Not sensitivity or specificity of an identified test
- Warngard O, Stenhammar L, Ascher H et al. Small bowel biopsy in Swedish paediatric clinics. *Acta Paediatrica (Oslo, Norway - 1992)* 1996;85(2):240-241. Not sensitivity or specificity of an identified test
- Warshaw A L, Laster L. Protein synthesis by human intestinal mucosa: variations with diseases of the gut. *Journal of Surgical Research* 1973;14(4):285-293. Not sensitivity or specificity of an identified test
- Watson A J, Parkin J M. Jejunal-biopsy findings during prodromal stage of measles in a child with coeliac disease. *Lancet* 1970;2(7683):1134-1135. Not sensitivity or specificity of an identified test
- Watson A J, Wright N A. Morphology and cell kinetics of the jejunal mucosa in untreated patients. *Clin Gastroenterol* 1974;3(1):11-31. Not sensitivity or specificity of an identified test
- Watson A J, Appleton D R, Wright N A. Adaptive cell-proliferative changes in the small-intestinal mucosa in coeliac disease. *Scandinavian Journal of Gastroenterology. Supplement* 1982;74:115-127. Not sensitivity or specificity of an identified test
- Watson R G, McMillan S A, Dickey W et al. Detection of undiagnosed coeliac disease with atypical features using antireticulin and antigliadin antibodies. *Quarterly Journal of Medicine* 1992;84(305):713-718. Not sensitivity or specificity of an identified test
- Watson R G, McMillan S A, Dolan C et al. Gliadin antibody detection in gluten enteropathy. *Ulster Medical Journal* 1986;55(2):160-164. Serology <1990
- Wauters E A. Clinical diagnosis of coeliac disease. *Irish Medical Journal* 1974;67(15):406-411. Not sensitivity or specificity of an identified test
- Wauters E A, Jansen J, Houwen R H et al. Serum IgG and IgA anti-gliadin antibodies as markers of mucosal damage in children with suspected celiac disease upon gluten challenge. *Journal of Pediatric Gastroenterology and Nutrition* 1991;13(2):192-196. Not sensitivity or specificity of an identified test
- Weetman A P, McCorkle R. Evidence against extended DR3-related haplotypes in Graves' disease. *Journal of Immunogenetics* 1990;17(6):403-407. Not sensitivity or specificity of an identified test
- Wehbi Nizar K, Dugger Ashley L, Bonner Rebecca B et al. Pan-cadherin as a high level phenotypic biomarker for prostate cancer. *Journal of Urology* 2002;167(5):2215-2221. Not sensitivity or specificity of an identified test
- Wei L, Debets R, Hegmans J J et al. IL-1 beta and IFN-gamma induce the regenerative epidermal phenotype of psoriasis in the transwell skin organ culture system. IFN-gamma up-regulates the expression of keratin 17 and keratinocyte transglutaminase via endogenous IL-1 production. *Journal of Pathology* 1999;187(3):358-364. Not sensitivity or specificity of an identified test
- Weile B. Aspects of classic symptomatic childhood coeliac disease in Denmark: Retrospectively illustrated by local, regional, and national studies. *Apmis Suppl* 2003;111(113):5-46. Not sensitivity or specificity of an identified test
- Weile B, Grodzinsky E, Skogh T et al. Screening Danish blood donors for antigliadin and antiendomysium antibodies. *Acta paediatrica (Oslo, Norway : 1992). Supplement.* 1996;412:46. Not sensitivity or specificity of an identified test
- Weile B, Hansen B F, Hagerstrand I et al. Interobserver variation in diagnosing coeliac disease. A joint study by Danish and Swedish pathologists. *Apmis - Acta Pathologica, Microbiologica, Et Immunologica Scandinavica* 2000;108(5):380-384. Unable to extract data
- Weile Birgitte, Heegaard Niels H H, Hoier-Madsen Mimi et al. Tissue transglutaminase and endomysial autoantibodies measured in an historical cohort of children and young adults in whom coeliac disease was suspected. *European Journal of Gastroenterology & Hepatology* 2002;14(1):71-76. Improper control group
- Weile I, Grodzinsky E, Skogh T et al. High prevalence rates of adult silent coeliac disease, as seen in Sweden, must be expected in Denmark. *Apmis - Acta Pathologica, Microbiologica, Et Immunologica Scandinavica* 2001;109(11):745-750. Not sensitivity or specificity of an identified test
- Weinberg J B, Phippen A M, Greenberg C S. Extravascular fibrin formation and dissolution in synovial tissue of patients with osteoarthritis and rheumatoid arthritis. *Arthritis and Rheumatism* 1991;34(8):996-1005. Not sensitivity or specificity of an identified test
- Weinshenker B G, Santrach P, Bissonet A S et al. Major histocompatibility complex class II alleles and the course and outcome of MS: a population-based study. *Neurology* 1998;51(3):742-747. Not sensitivity or specificity of an identified test
- Weinstein W M. Latent celiac sprue. *Gastroenterology* 1974;66(4):489-493. Not sensitivity or specificity of an identified test
- Weinstein W M, Brow J R, Parker F et al. The small intestinal mucosa in dermatitis herpetiformis. II. Relationship of the small intestinal lesion to gluten.

- Gastroenterology 1971;60(3):362-369. Not sensitivity or specificity of an identified test
- Weinstein W M, Saunders D R, Tytgat G N et al. Collagenous sprue--an unrecognized type of malabsorption. *New England Journal of Medicine* 1970;283(24):1297-1301. Not sensitivity or specificity of an identified test
- Weir D G, Hourihane D O. Coeliac disease during the teenage period: the value of serial serum folate estimations. *Gut* 1974;15(6):450-457. Not sensitivity or specificity of an identified test
- Weiser M M, Douglas A P. An alternative mechanism for gluten toxicity in coeliac disease. *Lancet* 1976;1(7959):567-569. Not sensitivity or specificity of an identified test
- Weiss J B, Austin R K, Schanfield M S et al. Gluten-sensitive enteropathy. Immunoglobulin G heavy-chain (Gm) allotypes and the immune response to wheat gliadin. *Journal of Clinical Investigation* 1983;72(1):96-101. Not sensitivity or specificity of an identified test
- Weizman Z, Ben Zion Y Z, Binsztok M et al. Correlation of clinical characteristics and small bowel histopathology in celiac disease. *Journal of Pediatric Gastroenterology and Nutrition* 1997;24(5):555-558. Not sensitivity or specificity of an identified test
- Weizman Z, Stringer D A, Durie P R. Radiologic manifestations of malabsorption: a nonspecific finding. *Pediatrics* 1984;74(4):530-533. Not sensitivity or specificity of an identified test
- Weizman Z, Vardi O, Binsztok M. Dermatoglyphic (fingerprint) patterns in celiac disease. *Journal of Pediatric Gastroenterology and Nutrition* 1990;10(4):451-453. Not sensitivity or specificity of an identified test
- Welcher B C, Carra J H, DaSilva L et al. Lethal shock induced by streptococcal pyrogenic exotoxin A in mice transgenic for human leukocyte antigen-DQ8 and human CD4 receptors: Implications for development of vaccines and therapeutics. *J Infect Dis* 2002;186(4):501-510. Not sensitivity or specificity of an identified test
- Weller M, Esser P, Bresgen M et al. Thrombospondin: a new attachment protein in preretinal traction membranes. *European Journal of Ophthalmology* 1992;2(1):10-14. Not sensitivity or specificity of an identified test
- Wellman-Bednawska M, Artur Y, Siest G. Variations in sialic acid content of gamma-glutamyltransferase: a consequence for immunochemical determinations?. *Clinica Chimica Acta* 1985;International Journal of Clinical Chemistry; 148(1):21-30. Not sensitivity or specificity of an identified test
- Wells C A, Heryet A, Brochier J et al. The immunocytochemical detection of axillary micrometastases in breast cancer. *British Journal of Cancer* 1984;50(2):193-197. Not sensitivity or specificity of an identified test
- Welsh J D, Zschiesche O M, Anderson J et al. Intestinal disaccharidase activity in celiac sprue (gluten-sensitive enteropathy). *Archives of Internal Medicine* 1969;123(1):33-38. Not sensitivity or specificity of an identified test
- West J, Lloyd C A, Hill P G et al. IgA-antitissue transglutaminase: validation of a commercial assay for diagnosing coeliac disease. *Clinical Laboratory* 2002;48(5-6):241-246. Improper control group
- West J, Logan R F A, Hill P G et al. Seroprevalence, correlates, and characteristics of undetected coeliac disease in England. *Gut* 2003;52(7):960-965. Not sensitivity or specificity of an identified test
- Westergaard H. The sprue syndromes. *American Journal of the Medical Sciences* 1985;290(6):249-262. Not sensitivity or specificity of an identified test
- Westerholm-Ormio M, Garioch J, Ketola I et al. Inflammatory cytokines in small intestinal mucosa of patients with potential coeliac disease. *Clinical and Experimental Immunology* 2002;128(1):94-101. Not sensitivity or specificity of an identified test
- Westerholm-Ormio Mia, Vaarala Outi, Pihkala Paivi et al. Immunologic activity in the small intestinal mucosa of pediatric patients with type 1 diabetes. *Diabetes* 2003;52(9):2287-2295. Not sensitivity or specificity of an identified test
- Westphal J R, Boerbooms A M, Schalwijk C J et al. Anti-endothelial cell antibodies in sera of patients with autoimmune diseases: comparison between ELISA and FACS analysis. *Clinical and Experimental Immunology* 1994;96(3):444-449. Not sensitivity or specificity of an identified test
- Wharton B A. Coeliac disease in childhood. *Br J Hosp Med* 1974;12(4):452-466. Not sensitivity or specificity of an identified test
- White A G, Barnetson R S C, Da Costa J A G et al. The incidence of HL A antigens in dermatitis herpetiformis. *Br J Dermatol* 1973;89(2):133-136. Not sensitivity or specificity of an identified test
- Whitlow M B, Ramm L E, Mayer M M. Penetration of C8 and C9 in the C5b-9 complex across the erythrocyte membrane into the cytoplasmic space. *Journal of Biological Chemistry* 1985;260(2):998-1005. Not sensitivity or specificity of an identified test
- Whyard T C, Ablin R J. A tissue type transglutaminase in human seminal plasma. *American Journal of Reproductive Immunology (New York, N.y.- 1989)* 1997;38(6):391-399. Not sensitivity or specificity of an identified test
- Whyard T C, Ablin R J. A modified assay for blood

- coagulation factor XIII using enzyme immobilisation on *Staphylococcus aureus*: Preliminary evaluation. *Fibrinolysis* 1991;5(2):127-130. Not sensitivity or specificity of an identified test
- Wiedmann M, Liebert U G, Oesen U et al. Decreased immunogenicity of recombinant hepatitis B vaccine in chronic hepatitis C. *Hepatology* 2000;31(1):230-234. Not sensitivity or specificity of an identified test
- Willems D, Cadranel S, Jacobs W. Measurement of urinary sugars by HPLC in the estimation of intestinal permeability: Evaluation in pediatric clinical practice. *Clinical Chemistry* 1993;39(5):888-890. Not sensitivity or specificity of an identified test
- Williams A J, Annis P, Lock R J et al. Evaluation of a high-throughput second antibody radiobinding assay for measuring IgA antibodies to human tissue transglutaminase. *Journal of Immunological Methods* 1999;228(1-2):81-85. Improper control group
- Williams A J, Norcross A J, Lock R J et al. The high prevalence of autoantibodies to tissue transglutaminase in first-degree relatives of patients with type 1 diabetes is not associated with islet autoimmunity. *Diabetes Care* 2001;24(3):504-509. Not sensitivity or specificity of an identified test
- Williams C N. Celiac disease: Past, present and future. *Canadian Journal of Gastroenterology = Journal Canadien De Gastroenterologie* 1997;11(8):647-649. Not sensitivity or specificity of an identified test
- Williams C N. Collagenous colitis. *Canadian Journal of Gastroenterology = Journal Canadien De Gastroenterologie* 1998;12(1):23-24. Not sensitivity or specificity of an identified test
- Williamson Debbie, Marsh Michael N. Celiac disease. *Molecular Biotechnology* 2002;22(3):293-299. Not sensitivity or specificity of an identified test
- Williamson N, Asquith P, Stokes L et al. Anticonnective tissue and other antitissue 'antibodies' in the sera of patients with coeliac disease compared with the findings in a mixed hospital population. *Journal of Clinical Pathology* 1976;29(6):484-494. Not sensitivity or specificity of an identified test
- Willoughby J M T, Laitner S M. Audit of the investigation of iron deficiency anaemia in a distinct general hospital, with sample guidelines for future practice. *Postgrad Med J* 2000;76(894):218-222. Not sensitivity or specificity of an identified test
- Wills A J, Turner B, Lock R J et al. Dermatitis herpetiformis and neurological dysfunction. *Journal of Neurology, Neurosurgery, and Psychiatry* 2002;72(2):259-261. Not sensitivity or specificity of an identified test
- Wilson A G, Clay F E, Crane A M et al. Comparative genetic association of human leukocyte antigen class II and tumor necrosis factor-alpha with dermatitis herpetiformis. *J Invest Dermatol* 1995;104(5):856-858. Not sensitivity or specificity of an identified test
- Wilson A G, Symons J A, McDowell T L et al. Effects of a polymorphism in the human tumor necrosis factor alpha promoter on transcriptional activation. *Proc Natl Acad Sci U S A* 1997;94(7):3195-3199. Not sensitivity or specificity of an identified test
- Wilson C, Eade O E, Elstein M et al. Subclinical coeliac disease and infertility. *Br Med J* 1976;2(6029):215-216. Not sensitivity or specificity of an identified test
- Wilson W B. Clinical and laboratory evaluation of malabsorption. *Journal of the Mississippi State Medical Association* 1978;19(10):183-185. Not sensitivity or specificity of an identified test
- Wingren U, Hallert C, Norrby K et al. Histamine and mucosal mast cells in gluten enteropathy. *Agents and Actions* 1986;18(1-2):266-268. Not sensitivity or specificity of an identified test
- Winklhofer-Roob B M, Rossipal E, Lanzer G. Human leukocyte class I and II antigens in coeliac disease: a study in an Austrian paediatric population. *European Journal of Pediatrics* 1991;150(10):704-707. Not sensitivity or specificity of an identified test
- Wirtz P W, Roep B O, Schreuder G M T et al. HLA class I and II in Lambert-Eaton myasthenic syndrome without associated tumor. *Hum Immunol* 2001;62(8):809-813. Not sensitivity or specificity of an identified test
- Witas H W. Genetic background of coeliac disease. *Cent-Eur J Immunol* 2000;25(4):222-226. Not sensitivity or specificity of an identified test
- Witas H W, Mlynarski W, Niewiadomska H et al. Immune response in coeliac disease: Involvement of costimulatory molecules during activation of lymphocytes infiltrating the intestine. *Cent-Eur J Immunol* 2000;25(4):180-184. Not sensitivity or specificity of an identified test
- Witas H W, Mlynarski W, Rozalski M et al. Study of Polish coeliac patients: HLA-DQ amino acid variants involved in antigen presentation. *Cent-Eur J Immunol* 1997;22(4):266-271. Not sensitivity or specificity of an identified test
- Witas H W, Sychowski R, Mlynarski W et al. Does TNF locus contribute to coeliac disease as the independent genetic factor or linked to particular HLA-haplotype?. *Cent-Eur J Immunol* 2000;25(2):57-62. Not sensitivity or specificity of an identified test
- Wolber R, Owen D, Freeman H. Colonic lymphocytosis in patients with celiac sprue. *Human Pathology* 1990;21(11):1092-1096. Not sensitivity or specificity of an identified test

- Wolber R, Owen D, DelBuono L et al. Lymphocytic gastritis in patients with celiac sprue or spruelike intestinal disease. *Gastroenterology* 1990;98(2):310-315. Not sensitivity or specificity of an identified test
- Wong F S, Wen L. The study of HLA class II and autoimmune diabetes. *Curr Mol Med* 2003;3(1):1-15. Not sensitivity or specificity of an identified test
- Wong R C W, Steele R H, Reeves G E M et al. Antibody and genetic testing in coeliac disease. *Pathology* 2003;35(4):285-304. Not sensitivity or specificity of an identified test
- Wong R C W, Wilson R J, Steele R H et al. A comparison of 13 guinea pig and human anti-tissue transglutaminase antibody ELISA kits. *Journal of Clinical Pathology* 2002;55(7):488-494. Improper control group
- Wood G M, Howdle P D, Trejdosiewicz L K et al. Jejunal plasma cells and in vitro immunoglobulin production in adult coeliac disease. *Clinical and Experimental Immunology* 1987;69(1):123-132. Not sensitivity or specificity of an identified test
- Wood G M, Shires S, Howdle P D et al. Immunoglobulin production by coeliac biopsies in organ culture. *Gut* 1986;27(10):1151-1160. Not sensitivity or specificity of an identified test
- Woodley J F. Pyrrolidonecarboxyl peptidase activity in normal intestinal biopsies and those from coeliac patients. *Clinica Chimica Acta* 1972;International Journal of Clinical Chemistry; 42(1):211-213. Not sensitivity or specificity of an identified test
- Woolley N, Holopainen P, Bourgain C et al. CD80 (B7-1) and CD86 (B7-2) genes and genetic susceptibility to coeliac disease. *European Journal of Immunogenetics - Official Journal of the British Society for Histocompatibility and Immunogenetics* 2002;29(4):331-333. Not sensitivity or specificity of an identified test
- Woolley Niina, Holopainen Paivi, Ollikainen Vesa et al. A new locus for coeliac disease mapped to chromosome 15 in a population isolate. *Human Genetics* 2002;111(1):40-45. Not sensitivity or specificity of an identified test
- Wordsworth B P, Salmon M. The HLA class II component of susceptibility to rheumatoid arthritis. *Bailliere's Clin Rheumatol* 1992;6(2):325-336. Not sensitivity or specificity of an identified test
- Wordsworth P. PCR-SSO typing in HLA-disease association studies. *European Journal of Immunogenetics - Official Journal of the British Society for Histocompatibility and Immunogenetics* 1991;18(1-2):139-146. Not sensitivity or specificity of an identified test
- Wozniak M, Fausto A, Carron C P et al. Mechanically strained cells of the osteoblast lineage organize their extracellular matrix through unique sites of alphavbeta3-integrin expression. *Journal of Bone and Mineral Research - the Official Journal of the American Society for Bone and Mineral Research* 2000;15(9):1731-1745. Not sensitivity or specificity of an identified test
- Wray D. Gluten-sensitive recurrent aphthous stomatitis. *Digestive Diseases and Sciences* 1981;26(8):737-740. Not sensitivity or specificity of an identified test
- Wright D H. Enteropathy associated T cell lymphoma. *Cancer Surveys* 1997;30249-261. Not sensitivity or specificity of an identified test
- Wright N A, Morley A R, Appleton D R et al. Measurement of cell production rate in the human small bowel. *Pathologia Et Microbiologia* 1973;39(3):251-253. Not sensitivity or specificity of an identified test
- Wright N, Watson A, Morley A et al. Cell kinetics in flat (avillous) mucosa of the human small intestine. *Gut* 1973;14(9):701-710. Not sensitivity or specificity of an identified test
- Wright P H, Menzies I S, Pounder R E et al. Adult idiopathic pulmonary haemosiderosis and coeliac disease. *Quarterly Journal of Medicine* 1981;50(197):95-102. Not sensitivity or specificity of an identified test
- Wu T T, Hamilton S R. Lymphocytic gastritis: association with etiology and topology. *American Journal of Surgical Pathology* 1999;23(2):153-158. Not sensitivity or specificity of an identified test
- Wucherpfennig K W. Insights into autoimmunity gained from structural analysis of MHC-peptide complexes. *Current Opinion in Immunology* 2001;13(6):650-656. Not sensitivity or specificity of an identified test
- Wurm P, Wicks A C. Iron deficiency anaemia - A clinical challenge. *Postgrad Med J* 2000;76(894):193-194. Not sensitivity or specificity of an identified test
- Wyckoff E E, Croall D E, Ehrenfeld E. The p220 component of eukaryotic initiation factor 4F is a substrate for multiple calcium-dependent enzymes. *Biochemistry* 1990;29(43):10055-10061. Not sensitivity or specificity of an identified test
- Yadollahi-Farsani Masoud, Davies Donald S, Boobis Alan R. The mutational signature of alpha-hydroxytamoxifen at Hprt locus in Chinese hamster cells. *Carcinogenesis* 2002;23(11):1947-1952. Not sensitivity or specificity of an identified test
- Yagui-Beltran A, Craig A L, Lawrie L et al. The human oesophageal squamous epithelium exhibits a novel type of heat shock protein response. *European Journal of Biochemistry / Febs* 2001;268(20):5343-5355. Not sensitivity or specificity of an identified test
- Yamada K, Matsuki M, Morishima Y et al. Activation of

- the human transglutaminase 1 promoter in transgenic mice: terminal differentiation-specific expression of the TGM1-lacZ transgene in keratinized stratified squamous epithelia. *Human Molecular Genetics* 1997;6(13):2223-2231. Not sensitivity or specificity of an identified test
- Yamada K, Yamanishi K, Kakizuka A et al. Transcriptional regulation of human transglutaminase 1 gene by signaling systems of protein kinase C, RAR/RXR and Jun/Fos in keratinocytes. *Biochemistry and Molecular Biology International* 1994;34(4):827-836. Not sensitivity or specificity of an identified test
- Yamada T, Yoshiyama Y, Kawaguchi N et al. Possible roles of transglutaminases in Alzheimer's disease. *Dementia and Geriatric Cognitive Disorders* 1998;9(2):103-110. Not sensitivity or specificity of an identified test
- Yamanishi K, Inazawa J, Liew F M et al. Structure of the gene for human transglutaminase 1. *Journal of Biological Chemistry* 1992;267(25):17858-17863. Not sensitivity or specificity of an identified test
- Yan S D, Huang C C. Lymphotoxin in human middle ear cholesteatoma. *Laryngoscope* 1991;101(4 Pt 1):411-415. Not sensitivity or specificity of an identified test
- Yan S D, Huang C C. Tumor necrosis factor alpha in middle ear cholesteatoma and its effect on keratinocytes in vitro. *Annals of Otolaryngology, Rhinology, and Laryngology* 1991;100(2):157-161. Not sensitivity or specificity of an identified test
- Yan Z H, Noonan S, Nagy L et al. Retinoic acid induction of the tissue transglutaminase promoter is mediated by a novel response element. *Mol Cell Endocrinol* 1996;120(2):203-212. Not sensitivity or specificity of an identified test
- Yanagawa T, Manglabruks A, Chang Y-B et al. Human histocompatibility leukocyte antigen-DQA1\*0501 allele associated with genetic susceptibility to Graves' disease in a Caucasian population. *J Clin Endocrinol Metab* 1993;76(6):1569-1574. Not sensitivity or specificity of an identified test
- Yang H, Goluszko E, David C et al. Induction of myasthenia gravis in HLA transgenic mice by immunization with human acetylcholine receptors. *Ann New York Acad Sci* 2003;998(-):375-378. Not sensitivity or specificity of an identified test
- Yao Z, Kimura A, Hartung K et al. Polymorphism of the DQA1 promoter region (QAP) and DRB1, QAP, DQA1, DQB1 haplotypes in systemic lupus erythematosus. *Immunogenetics* 1993;38(6):421-429. Not sensitivity or specificity of an identified test
- Yaqoob N. Coeliac disease: A local perspective. *J Coll Phys Surg Pak* 1999;9(12):526-528. Not sensitivity or specificity of an identified test
- Yazdanbakhsh M, Sartono E, Kruize Y C M et al. HLA and elephantiasis in lymphatic filariasis. *Hum Immunol* 1995;44(1):58-61. Not sensitivity or specificity of an identified test
- Yeboah F A, White D. AlphaB-crystallin expression in celiac disease - a preliminary study. *Croatian Medical Journal* 2001;42(5):523-526. Not sensitivity or specificity of an identified test
- Yelamos J, Garcia-Lozano J R, Moreno I et al. Association of HLA-DR4-Dw15 (DRB1\*0405) and DR10 with rheumatoid arthritis in a Spanish population. *Arthritis Rheum* 1993;36(6):811-814. Not sensitivity or specificity of an identified test
- Yiannakou J Y, Brett P M, Morris M A et al. Family linkage study of the T-cell receptor genes in coeliac disease. *Italian Journal of Gastroenterology and Hepatology* 1999;31(3):198-201. Not sensitivity or specificity of an identified test
- Yiannakou J Y, Dell'Olio D, Saaka M et al. Detection and characterisation of anti-endomysial antibody in coeliac disease using human umbilical cord. *International Archives of Allergy and Immunology* 1997;112(2):140-144. Improper control group
- Yiu C Y, Baker L A, Boulos P B. Immunolocalisation of an anti-EMA monoclonal antibody to a renal carcinoma xenograft. *Anticancer Research* 1990;10(6):1775-1778. Not sensitivity or specificity of an identified test
- Yoneda K, Akiyama M, Morita K et al. Expression of transglutaminase 1 in human hair follicles, sebaceous glands and sweat glands. *British Journal of Dermatology* 1998;138(1):37-44. Not sensitivity or specificity of an identified test
- Yoneda K, Akiyama M, Shimizu H et al. Transglutaminase 1 in human hair follicle. *Experimental Dermatology* 1999;8(4):368-369. Not sensitivity or specificity of an identified test
- Yoshiie K, Kim H-Y, Mott J et al. Intracellular infection by the human granulocytic ehrlichiosis agent inhibits human neutrophil apoptosis. *Infect Immun* 2000;68(3):1125-1133. Not sensitivity or specificity of an identified test
- Young G P, Hebbard G S. Diagnostic techniques for small intestinal disease. *Curr Opin Gastroenterol* 1992;8(2):232-238. Not sensitivity or specificity of an identified test
- Young G P, Koberts S K. Diagnostic studies of the small intestine. *Curr Opin Gastroenterol* 1991;7(2):256-262. Not sensitivity or specificity of an identified test
- Young V L, Nemecek J R, Schwartz B D et al. HLA typing in women with breast implants. *Plast Reconstr Surg* 1995;96(7):1497-1520. Not sensitivity or specificity of an identified test

Younoszai M K, Ranshaw J C. Quantitation of intestinal-tissue layers from their histology. *American Journal of Digestive Diseases* 1975;20(8):764-770. Not sensitivity or specificity of an identified test

Yu B, Gauthier L, Hausmann D H et al. Binding of conserved islet peptides by human and murine MHC class II molecules associated with susceptibility to type I diabetes. *European Journal of Immunology* 2000;30(9):2497-2506. Not sensitivity or specificity of an identified test

Yu L, Brewer K W, Gates S et al. DRB1\*04 and DQ alleles: expression of 21-hydroxylase autoantibodies and risk of progression to Addison's disease. *Journal of Clinical Endocrinology and Metabolism* 1999;84(1):328-335. Not sensitivity or specificity of an identified test

Yunis J J, Salazar M, Delgado M B et al. HLA-DQA1, DQB1 and DPB1 alleles on HLA-DQ2- and DQ9-carrying extended haplotypes. *Tissue Antigens* 1993;41(1):37-41. Not sensitivity or specificity of an identified test

Zaccari G, Mazzetti di, Pietralata Paone F M et al. A proposal for coeliac disease screening of all infants at the age of fifteen months. *Gastroenterol Int* 1996;9(1):11-15. Not sensitivity or specificity of an identified test

Zacchi Paola, Sblattero Daniele, Florian Fiorella et al. Selecting open reading frames from DNA. *Genome Research* 2003;13(5):980-990. Not sensitivity or specificity of an identified test

Zachor D A, Mroczek-Musulman E, Brown P. Prevalence of coeliac disease in Down syndrome in the United States. *Journal of Pediatric Gastroenterology and Nutrition* 2000;31(3):275-279. Not sensitivity or specificity of an identified test

Zaitoun A, Record C O. Morphometric studies in duodenal biopsies from patients with coeliac disease: the effect of the steroid fluticasone propionate. *Alimentary Pharmacology & Therapeutics* 1991;5(2):151-160. Not sensitivity or specificity of an identified test

Zauli D, Grassi A, Granito A et al. Prevalence of silent coeliac disease in atopsics. *Digestive and Liver Disease - Official Journal of the Italian Society of Gastroenterology and the Italian Association for the Study of the Liver* 2000;32(9):775-779. Not sensitivity or specificity of an identified test

Zeeuwen P L J M, Vlijmen-Willems I M J J, Egami H et al. Cystatin M / E expression in inflammatory and neoplastic skin disorders. *British Journal of Dermatology* 2002;147(1):87-94. Not sensitivity or specificity of an identified test

Zeeuwen P L J M, Vlijmen-Willems I M J J, Jansen B J H et al. Cystatin M/E expression is restricted to differentiated epidermal keratinocytes and sweat glands: A new skin-

specific proteinase inhibitor that is a target for cross-linking by transglutaminase. *J Invest Dermatol* 2001;116(5):693-701. Not sensitivity or specificity of an identified test

Zeher M, Szegedi G, Csiki Z et al. Fibrinolysis-resistant fibrin deposits in minor labial salivary glands of patients with Sjogren's syndrome. *Clinical Immunology and Immunopathology* 1994;71(2):149-155. Not sensitivity or specificity of an identified test

Zelger B, Weinlich G, Zelger B. Perineuroma. A frequently unrecognized entity with emphasis on a plexiform variant. *Advances in Clinical Pathology - the Official Journal of Adriatic Society of Pathology* 2000;4(1):25-33. Not sensitivity or specificity of an identified test

Zemaitaitis M O, Lee J M, Troncoso J C et al. Transglutaminase-induced cross-linking of tau proteins in progressive supranuclear palsy. *Journal of Neuro pathology and Experimental Neurology* 2000;59(11):983-989. Not sensitivity or specificity of an identified test

Zettergren J G, Peterson L L, Wuepper K D. Keratolinin: the soluble substrate of epidermal transglutaminase from human and bovine tissue. *Proceedings of the National Academy of Sciences of the United States of America* 1984;81(1):238-242. Not sensitivity or specificity of an identified test

Zhang H, Koty P P, Mayotte J et al. Induction of multiple programmed cell death pathways by IFN-beta in human non-small-cell lung cancer cell lines. *Experimental Cell Research* 1999;247(1):133-141. Not sensitivity or specificity of an identified test

Zhang H, Yousem S A, Franklin W A et al. Differentiation and programmed cell death-related intermediate biomarkers for the development of non-small cell lung cancer: a pilot study. *Human Pathology* 1998;29(9):965-971. Not sensitivity or specificity of an identified test

Zhang J, Guttman R P, Johnson G V. Tissue transglutaminase is an in situ substrate of calpain: regulation of activity. *Journal of Neurochemistry* 1998;71(1):240-247. Not sensitivity or specificity of an identified test

Zhang J, Lesort M, Guttman R P et al. Modulation of the in situ activity of tissue transglutaminase by calcium and GTP. *Journal of Biological Chemistry* 1998;273(4):2288-2295. Not sensitivity or specificity of an identified test

Zhang J, Tucholski J, Lesort M et al. Novel bimodal effects of the G-protein tissue transglutaminase on adrenoreceptor signalling. *Biochemical Journal* 1999;343(Pt 3):541-549. Not sensitivity or specificity of an identified test

Zhang L X, Mills K J, Dawson M I et al. Evidence for the involvement of retinoic acid receptor RAR alpha-dependent signaling pathway in the induction of tissue transglutaminase and apoptosis by retinoids. *Journal of Biological Chemistry* 1995;270(11):6022-6029. Not

sensitivity or specificity of an identified test

Zhang Rulin, Tremblay Tammy, McDermid Angela et al. Identification of differentially expressed proteins in human glioblastoma cell lines and tumors. *Glia* 2003;42(2):194-208. Not sensitivity or specificity of an identified test

Zhang W, Johnson B R, Bjornsson T D. Pharmacologic inhibition of transglutaminase-induced cross-linking of Alzheimer's amyloid beta-peptide. *Life Sciences* 1997;60(25):2323-2332. Not sensitivity or specificity of an identified test

Zhang W, Johnson B R, Suri D E et al. Immunohistochemical demonstration of tissue transglutaminase in amyloid plaques. *Acta Neuropathologica* 1998;96(4):395-400. Not sensitivity or specificity of an identified test

Zhong F, McCombs C C, Olson J M et al. An autosomal screen for genes that predispose to celiac disease in the western counties of Ireland. *Nature Genetics* 1996;14(3):329-333. Not sensitivity or specificity of an identified test

Zhu T H, Bodem J, Keppel E et al. A single ancestral gene of the human LIM domain oncogene family LMO in *Drosophila*: characterization of the *Drosophila* Dlmo gene. *Oncogene* 1995;11(7):1283-1290. Not sensitivity or specificity of an identified test

Zhu Y, Tassi L, Lane W et al. Specific binding of the transglutaminase, platelet factor XIII, to HSP27. *Journal of Biological Chemistry* 1994;269(35):22379-22384. Not sensitivity or specificity of an identified test

Ziegler Anette, Schmid Sandra, Huber Doris et al. Early infant feeding and risk of developing type 1 diabetes-associated autoantibodies. *Jama - the Journal of the American Medical Association* 2003;290(13):1721-1728.

Not sensitivity or specificity of an identified test

Zimmer K P, Naim H, Weber P et al. Targeting of gliadin peptides, CD8, alpha/beta-TCR, and gamma/delta-TCR to Golgi complexes and vacuoles within celiac disease enterocytes. *Faseb Journal - Official Publication of the Federation of American Societies for Experimental Biology* 1998;12(13):1349-1357. Not sensitivity or specificity of an identified test

Zimmer K P, Poremba C, Weber P et al. Translocation of gliadin into HLA-DR antigen containing lysosomes in celiac disease enterocytes. *Gut* 1995;36(5):703-709. Not sensitivity or specificity of an identified test

Zins B J, Tremaine W J, Carpenter H A. Collagenous colitis: mucosal biopsies and association with fecal leukocytes. *Mayo Clinic Proceedings* 1995;70(5):430-433. Not sensitivity or specificity of an identified test

Zipser R D, Patel S, Yahya K Z et al. Presentations of adult celiac disease in a nationwide patient support group. *Digestive Diseases and Sciences* 2003;48(4):761-764. Not sensitivity or specificity of an identified test

Zubillaga P, Vitoria J C, Arrieta A et al. Down Syndrome and celiac disease. *Journal of Pediatric Gastroenterology and Nutrition* 1993;16(2):168-171. Not sensitivity or specificity of an identified test

Zubillaga Paul, Vidales Maria, Concepcion Zubillaga et al. HLA-DQA1 and HLA-DQB1 genetic markers and clinical presentation in celiac disease. *Journal of Pediatric Gastroenterology and Nutrition* 2002;34(5):548-554. Improper control group

Zuin G, Fontana M, Morelli A et al. Antigliadin antibodies in HIV-infected children. *Pediatric Aids and Hiv Infection* 1996;7(6):409-412. Not sensitivity or specificity of an identified test

## Objective 2 – Prevalence and Incidence of CD

Abdulkarim A S, Murray J A. Review article: The diagnosis of coeliac disease. *Aliment Pharmacol Ther* 2003;17(8):987-995. No prevalence or incidence reported

Abdullah A M. Aetiology of chronic diarrhoea in children: experience at King Khalid University Hospital, Riyadh, Saudi Arabia. *Ann Trop Paediatr* 1994;14(2):111-117. Not a relevant screening geography

Abele M, Schols L, Schwartz S et al. Prevalence of antigliadin antibodies in ataxia patients. *Neurology* 2003;60(10):1674-1675. No prevalence or incidence reported

Acalovschi M. Coeliac disease and lymphoma. *Rom J Gastroenterol* 2001;10(4):317-320. No prevalence or incidence reported

Addolorato G, Capristo E, Ghittoni G et al. Anxiety but not depression decreases in coeliac patients after one-year gluten-free diet: a longitudinal study. *Scand J Gastroenterol* 2001;36(5):502-506. No prevalence or incidence reported

Addolorato G, Stefanini G F, Capristo E et al. Anxiety and depression in adult untreated celiac subjects and in patients affected by inflammatory bowel disease: A personality 'trait' or a reactive illness?. *Hepatogastroenterology* 1996;43(12):1513-1517. No prevalence or incidence reported

- Adeniji O A, DiPalma J A. Food allergy. *Pract Gastroenterol* 2003;27(4):49-56. No prevalence or incidence reported
- Agardh D, Nilsson A, Carlsson A et al. Tissue transglutaminase autoantibodies and human leucocyte antigen in Down Syndrome patients with coeliac disease. *Acta Paediatr* 2002;91(1):34-38. No prevalence or incidence reported
- Agrawal S, Gupta A, Yachha S K et al. Association of human leucocyte-DR and DQ antigens in coeliac disease: a family study. *J Gastroenterol Hepatol* 2000;15(7):771-774. No prevalence or incidence reported
- Agreus L, Svardsudd K, Tibblin G et al. Endomysium antibodies are superior to gliadin antibodies in screening for coeliac disease in patients presenting supposed functional gastrointestinal symptoms. *Scand J Prim Health Care* 2000;18(2):105-110. No prevalence or incidence reported
- Aguirre J M, Rodriguez R, Oribe D et al. Dental enamel defects in celiac patients. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod* 1997;84(6):646-650. No prevalence or incidence reported
- Ahmed A R, Hameed A. Bullous pemphigoid and dermatitis herpetiformis. *Clin Dermatol* 1993;11(1):47-52. No prevalence or incidence reported
- Aine L, Maki M, Collin P et al. Dental enamel defects in celiac disease. *Journal of Oral Pathology & Medicine - Official Publication of the International Association of Oral Pathologists and the American Academy of Oral Pathology* 1990;19(6):241-245. No prevalence or incidence reported
- Aine L, Maki M, Reunala T. Coeliac-type dental enamel defects in patients with dermatitis herpetiformis. *Acta Derm Venereol* 1992;72(1):25-27. No prevalence or incidence reported
- Aine L. Coeliac-type permanent-tooth enamel defects. *Ann Med* 1996;28(1):9-12. No prevalence or incidence reported
- Akerblom H K, Knip M. Putative environmental factors in Type 1 diabetes. *Diabetes Metab Rev* 1998;14(1):31-67. No prevalence or incidence reported
- Al Ashwal A A, Shabib S M, Sakati N A et al. Prevalence and characteristics of celiac disease in type I diabetes mellitus in Saudi Arabia. *Saudi Med J* 2003;24(10):1113-1115. No prevalence or incidence reported
- Al Attas R A. How common is celiac disease in Eastern Saudi Arabia?. *Ann Saudi Med* 2002;22(5-6):315-319. No prevalence or incidence reported
- Al Bayatti S M. Etiology of chronic diarrhea. *Saudi Med J* 2002;23(6):675-679. No prevalence or incidence reported
- Al Mondhiry H. Primary lymphomas of the small intestine: east-west contrast. *Am J Hematol* 1986;22(1):89-105. No prevalence or incidence reported
- al Tawaty A I, Elbargathy S M. Coeliac disease in north-eastern Libya. *Ann Trop Paediatr* 1998;18(1):27-30. Not a relevant screening geography
- Albert E D, Harms K, Wank R et al. Segregation analysis of HL-A antigens and haplotypes in 50 families of patients with coeliac disease. *Transplant Proc* 1973;5(4):1785-1789. No prevalence or incidence reported
- Alper C A, Awdeh Z L, Yunis E J. Complotypes, extended haplotypes, male segregation distortion, and disease markers. *Hum Immunol* 1986;15(4):366-373. No prevalence or incidence reported
- Alper C A, Fleischnick E, Awdeh Z et al. Extended major histocompatibility complex haplotypes in patients with gluten-sensitive enteropathy. *Eur J Clin Invest* 1987;79(1):251-256. No prevalence or incidence reported
- Alpers D H. The role of nutritional deficiency in the osteopenia and osteoporosis of gastrointestinal diseases. *Curr Opin Gastroenterol* 2002;18(2):203-208. No prevalence or incidence reported
- Altmann D M, Sansom D, Marsh S G. What is the basis for HLA-DQ associations with autoimmune disease?. *Immunol Today* 1991;12(8):267-270. No prevalence or incidence reported
- Altmann D M. HLA-DQ associations with autoimmune disease. *Autoimmunity* 1992;14(1):79-83. No prevalence or incidence reported
- Altuntas B, Kansu A, Ensari A et al. Celiac disease in Turkish short-statured children and the value of antigliadin antibody in diagnosis. *Nippon Shonika Gakkai Zasshi* 1998;40(5):457-460. Not a relevant screening geography
- Altuntas cedil, Filik B, Ensari A et al. Can zinc deficiency be used as a marker for the diagnosis of celiac disease in Turkish children with short stature?. *Pediatr Int* 2000;42(6):682-684. No prevalence or incidence reported
- Alvarez D, Vazquez H, Bai J C et al. Superior mesenteric artery blood flow in celiac disease. *Dig Dis*

- Sci 1993;38(7):1175-1182. No prevalence or incidence reported
- Amann S T, Bishop M, Curington C et al. Fecal pancreatic elastase 1 is inaccurate in the diagnosis of chronic pancreatitis. *Pancreas* 1996;13(3):226-230. No prevalence or incidence reported
- Ament M E, Perera D R, Esther L J. Sucrase-isomaltase deficiency-a frequently misdiagnosed disease. *Eur J Pediatr* 1973;83(5):721-727. No prevalence or incidence reported
- Amin Rakesh, Murphy Nuala, Edge Julie et al. A longitudinal study of the effects of a gluten-free diet on glycemic control and weight gain in subjects with type 1 diabetes and celiac disease. *Diabetes Care* 2002;25(7):1117-1122. No prevalence or incidence reported
- Amirhakimi G H, Samloff I M, Bryson M F et al. Intestinal lymphangiectasia. *Metabolic studies. Am J Dis Child* 1969;117(2):178-185. No prevalence or incidence reported
- Ammann R W, Hammer B, Fumagalli I. Chronic pancreatitis in Zurich, 1963-1972. Clinical findings and follow-up studies of 102 cases. *Digestion* 1973;9(5):404-415. No prevalence or incidence reported
- Anand A C, Elias E, Neuberger J M. End-stage primary biliary cirrhosis in a first generation migrant south Asian population. *Eur J Gastroenterol Hepatol* 1996;8(7):663-666. No prevalence or incidence reported
- Anderson J A. The clinical spectrum of food allergy in adults. *Clin Exp Allergy Suppl* 1991;21(1):304-315. No prevalence or incidence reported
- Anderson R P, Degano P, Godkin A J et al. In vivo antigen challenge in celiac disease identifies a single transglutaminase-modified peptide as the dominant A-gliadin T-cell epitope. *Nat Med* 2000;6(3):337-342. No prevalence or incidence reported
- Andersson-Wenckert I, Blomquist H K, Fredrikzon B. Oral health in coeliac disease and cow's milk protein intolerance. *Swed Dent J* 1984;8(1):9-14. No prevalence or incidence reported
- Andre F, Andre C, Colin L et al. Role of new allergens and of allergens consumption in the increased incidence of food sensitizations in France. *Toxicology* 1994;93(1):77-83. No prevalence or incidence reported
- Annibale B, Capurso G, Delle Fave G. The stomach and iron deficiency anaemia: a forgotten link. *Digestive and Liver Disease - Official Journal of the Italian Society of Gastroenterology and the Italian Association for the Study of the Liver* 2003;35(4):288-295. No prevalence or incidence reported
- Annibale B, Severi C, Chistolini A et al. Efficacy of gluten-free diet alone on recovery from iron deficiency anemia in adult celiac patients. *Am J Gastroenterol* 2001;96(1):132-137. No prevalence or incidence reported
- Anonymous. A guide for patients. *Pract Gastroenterol* 2002;26(11):58-61. No prevalence or incidence reported
- Anonymous. A long-term survey of coeliac disease. *Med J Aust* 1971;2(20):992. No prevalence or incidence reported
- Anonymous. American Gastroenterological Association medical position statement: Celiac Sprue. *Gastroenterology* 2001;120(6):1522-1525. No prevalence or incidence reported
- Anonymous. American Gastroenterological Association medical position statement: guidelines on osteoporosis in gastrointestinal diseases. *Gastroenterology* 2003;124(3):791-794. No prevalence or incidence reported
- Anonymous. American Thoracic Society/European Respiratory Society statement: Standards for the diagnosis and management of individuals with alpha-1 antitrypsin deficiency. *Am J Respir Crit Care Med* 2003;168(7):818-900. No prevalence or incidence reported
- Anonymous. Are your GI symptoms linked to wheat?. *Johns Hopkins Med Lett Health After 50* 2003;15(5):3, 7. No prevalence or incidence reported
- Anonymous. Catch-up growth in celiac disease. *Nutr Rev* 1973;31(1):13-14. No prevalence or incidence reported
- Anonymous. Celiac disease and how to live with it. *Harvard Women's Health Watch* 2001;8(9):3-4. No prevalence or incidence reported
- Anonymous. Celiac disease. *Am Fam Phys* 1998;57(5):1039-1041. No prevalence or incidence reported
- Anonymous. Coeliac disease in the West of Ireland. *Br Med J* 1973;2(5864):484-485. No prevalence or incidence reported
- Anonymous. Coeliac disease. *Br Med J* 1970;4(726):1-2. No prevalence or incidence reported
- Anonymous. Editorial: Drop-outs' diarrhoea. *Br Med J* 1974;3(5927):373. No prevalence or incidence reported

- Anonymous. Giardia lamblia and coeliac disease. Lancet 1973;2(7821):138No prevalence or incidence reported
- Anonymous. Highly inheritable coeliac disease. Med Today 2002;3(7):15No prevalence or incidence reported
- Anonymous. Hypophosphataemic osteomalacia in adults. Lancet 1971;1(7713):1343No prevalence or incidence reported
- Anonymous. Irritable bowel syndrome. Merec Bull 2000;11(11):41-44. No prevalence or incidence reported
- Anonymous. M2A(R) capsule endoscopy common diseases & current data: Including results from Digestive Disease Week (DDW) 2002, San Francisco, May 19th-22nd. Endoscopy 2002;34(7):I-V. No prevalence or incidence reported
- Anonymous. Minerva. Br Med J 1996;312(7040):1238No prevalence or incidence reported
- Anonymous. Patient support organisations: The coeliac society of Australia. Aust Prescr 2001;24(2):40No prevalence or incidence reported
- Anonymous. RCN Paediatric and Adolescent Diabetes Group 2002 Conference. Pract Diabetes Int 2003;20(2):77No prevalence or incidence reported
- Anonymous. Sedondary effects of iron deficiency. Nutr Rev 1969;27(2):41-43. No prevalence or incidence reported
- Anonymous. Summary and recommendations: Classification of gastrointestinal manifestations due to immunologic reactions to foods in infants and young children. J Pediatr Gastroenterol Nutr 2000;30(Suppl 1):S87-S94. No prevalence or incidence reported
- Anonymous. Thyroid disease in young diabetics. Lancet 1982;1(8284):1285-1286. No prevalence or incidence reported
- Anonymous. What you need to know about ... coeliac disease. Nurs Times 2003;99(10):30No prevalence or incidence reported
- Ansaldi-Balocco N, Santini B, Sarchi C. Efficacy of pancreatic enzyme supplementation in children with cystic fibrosis: comparison of two preparations by random crossover study and a retrospective study of the same patients at two different ages. J Pediatr Gastroenterol Nutr 1988;7(Suppl 1):s40-s45. No prevalence or incidence reported
- Anson O, Weizman Z, Zeevi N. Celiac disease: parental knowledge and attitudes of dietary compliance. Pediatrics 1990;85(1):98-103. No prevalence or incidence reported
- Anton H C. Thinning of the clavicular cortex in adults under the age of 45 in osteomalacia and hyperparathyroidism. Clin Radiol 1979;30(3):307-310. No prevalence or incidence reported
- Arato A, Savilahti E, Tainio V M et al. HLA-DR expression, natural killer cells and IgE containing cells in the jejunal mucosa of coeliac children. Gut 1987;28(8):988-994. No prevalence or incidence reported
- Araya M, Henderson-Smart D. Letter: Coeliac disease: an undiagnosed disorder with important implications. Med J Aust 1974;1(14):549No prevalence or incidence reported
- Araya M, Mondragon A, Perez-Bravo F et al. Celiac disease in a Chilean population carrying Amerindian traits. J Pediatr Gastroenterol Nutr 2000;31(4):381-386. No prevalence or incidence reported
- Arden Nigel K, Cooper Cyrus. Assessment of the risk of fracture in patients with gastrointestinal disease. Eur J Gastroenterol Hepatol 2003;15(8):865-868. No prevalence or incidence reported
- Armentia A, Martin-Santos J M, Quintero A et al. Bakers' asthma: prevalence and evaluation of immunotherapy with a wheat flour extract. Ann Allergy 1990;65(4):265-272. No prevalence or incidence reported
- Armentia A, Tapias J, Barber D et al. Sensitization to the storage mite Lepidoglyphus destructor in wheat flour respiratory allergy. Ann Allergy 1992;68(5):398-403. No prevalence or incidence reported
- Armes J, Gee D C, Macrae F A et al. Collagenous colitis: jejunal and colorectal pathology. J Clin Pathol 1992;45(9):784-787. No prevalence or incidence reported
- Arnala I, Kempainen T, Kroger H et al. Bone histomorphometry in celiac disease. Ann Chir Gynaecol 2001;90(2):100-104. No prevalence or incidence reported
- Arnason J A, Gudjonsson H, Freysdottir J et al. Do adults with high gliadin antibody concentrations have subclinical gluten intolerance?. Gut 1992;33(2):194-197. No prevalence or incidence reported
- Arnott I D, McDonald D, Williams A et al. Clinical use of Infliximab in Crohn's disease: the Edinburgh experience. Aliment Pharmacol Ther

- 2001;15(10):1639-1646. No prevalence or incidence reported
- Arranz E, Ferguson A. Intestinal antibody pattern of celiac disease: occurrence in patients with normal jejunal biopsy histology. *Gastroenterology* 1993;104(5):1263-1272. No prevalence or incidence reported
- Arranz E, Telleria J J, Sanz A et al. HLA-DQA1\*0501 and DQB1\*02 homozygosity and disease susceptibility in Spanish coeliac patients. *Exp Clin Immunogenet* 1997;14(4):286-290. No prevalence or incidence reported
- Arshad S H, Matthews S, Gant C et al. Effect of allergen avoidance on development of allergic disorders in infancy. *Lancet* 1992;339(8808):1493-1497. No prevalence or incidence reported
- Arshad S H. Food allergen avoidance in primary prevention of food allergy. *Allergy Eur J Allergy Clin Immunol Suppl* 2001;56(67):113-116. No prevalence or incidence reported
- Ascher H, Hahn-Zoric M, Hanson L A et al. Value of serologic markers for clinical diagnosis and population studies of coeliac disease. *Scand J Gastroenterol* 1996;31(1):61-67. No prevalence or incidence reported
- Ascher H, Holm K, Kristiansson B et al. Different features of coeliac disease in two neighbouring countries. *Arch Dis Child* 1993;69(3):375-380. No prevalence or incidence reported
- Ascher H, Krantz I, Kristiansson B. Increasing incidence of coeliac disease in Sweden. *Arch Dis Child* 1991;66(5):608-611. Serology screen <1990
- Ascher H, Krantz I, Rydberg L et al. Influence of infant feeding and gluten intake on coeliac disease. *Arch Dis Child* 1997;76(2):113-117. Not a relevant screening test
- Ascher H, Kristiansson B. The highest incidence of celiac disease in Europe: the Swedish experience. *J Pediatr Gastroenterol Nutr* 1997;24(5):S3-S6. No prevalence or incidence reported
- Ascher H. Coeliac disease and type 1 diabetes: an affair still with much hidden behind the veil. *Acta Paediatr* 2001;90(11):1217-1220. No prevalence or incidence reported
- Ascher H. Paediatric aspects of coeliac disease: old challenges and new ones... *Digestive and Liver Disease - Official Journal of the Italian Society of Gastroenterology and the Italian Association for the Study of the Liver* 2002;34(3):216-224. No prevalence or incidence reported
- Ashabani A, Errabtea H, Shapan A et al. Serologic markers of untreated celiac disease in Libyan children: antigliadin, antitransglutaminase, antiendomysial, and anticalreticulin antibodies. *J Pediatr Gastroenterol Nutr* 2001;33(3):276-282. No prevalence or incidence reported
- Ashabani Abdelhakim, Abushofa Umaima, Abusrewill Suliman et al. The prevalence of coeliac disease in Libyan children with type 1 diabetes mellitus. *Diabetes Metab Res Rev* 2003;19(1):69-75. Not a relevant screening geography
- Ashkenazi A, Cooper M, Nissim F et al. Occurrence of celiac disease in children in a defined area of Israel. *Isr J Med Sci* 1983;19(1):63-66. Not a relevant screening geography
- Ashorn M. Gastrointestinal diseases in the paediatric age groups in Europe: Epidemiology and impact on healthcare. *Aliment Pharmacol Ther Suppl* 2003;18(3):80-83. No prevalence or incidence reported
- Askling Johan, Linet Martha, Gridley Gloria et al. Cancer incidence in a population-based cohort of individuals hospitalized with celiac disease or dermatitis herpetiformis. *Gastroenterology* 2002;123(5):1428-1435. No prevalence or incidence reported
- Asquith P. Adult coeliac disease and malignancy. *Ir Med J* 1974;67(15):417-420. No prevalence or incidence reported
- Aukee S, Jussila J, Saikku L A et al. The functional state of the gastrointestinal tract before and after selective surgery. *Scand J Gastroenterol* 1969;4(3):241-248. No prevalence or incidence reported
- Auricchio S, Buffolano W, Ciccimarra F et al. In vitro proliferation of lymphocytes from celiac children and their first-degree relatives in response to wheat gliadin-derived peptides. *J Pediatr Gastroenterol Nutr* 1982;1(4):515-524. No prevalence or incidence reported
- Auricchio S, Follo D, de Ritis G et al. Does breast feeding protect against the development of clinical symptoms of celiac disease in children?. *J Pediatr Gastroenterol Nutr* 1983;2(3):428-433. No prevalence or incidence reported
- Auricchio S, Greco L, Troncone R. Gluten-sensitive enteropathy in childhood. *Pediatr Clin North Am* 1988;35(1):157-187. No prevalence or incidence reported
- Auricchio S, Greco L, Troncone R. What is the true prevalence of coeliac disease?. *Gastroenterol Int* 1990;3(3):140-142. Review article

- Auricchio S, Mazzacca G, Tosi R et al. Coeliac disease as a familial condition: Identification of asymptomatic coeliac patients within family groups. *Gastroenterol Int* 1988;1(1):25-31. Serology screen <1990
- Austin A S, Logan R F A, Thomason K et al. Cigarette smoking and adult coeliac disease. *Scand J Gastroenterol* 2002;37(8):978-982. No prevalence or incidence reported
- Axmacher B, Hed J, Ottoson E et al. Celiac disease and organic dust toxic syndrome. *Am J Ind Med* 1990;17(1):94-95. No prevalence or incidence reported
- Ayres J G. Classification and management of brittle asthma. *Br J Hosp Med* 1997;57(8):387-389. No prevalence or incidence reported
- Bagdi E, Diss T C, Munson P et al. Mucosal intra-epithelial lymphocytes in enteropathy-associated T-cell lymphoma, ulcerative jejunitis, and refractory celiac disease constitute a neoplastic population. *Blood* 1999;94(1):260-264. No prevalence or incidence reported
- Bagnasco M, Montagna P, De Alessandri A et al. IgA antiendomysium antibodies in human umbilical cord sections as a screening test in relatives of patients with celiac disease. *Allergy* 1997;52(10):1017-1021. No prevalence or incidence reported
- Bahia M, Rabello A, Brasileiro Filho G et al. Serum antigliadin antibody levels as a screening criterion before jejunal biopsy indication for celiac disease in a developing country. *Brazilian Journal of Medical and Biological Research = Revista Brasileira De Pesquisas Medicas E Biologicas / Sociedade Brasileira De Biofisica ...Et Al* 2001;34(11):1415-1420. No prevalence or incidence reported
- Bahna S L, Tateno K, Heiner D C. Elevated IgD antibodies to wheat in celiac disease. *Ann Allergy* 1980;44(3):146-151. No prevalence or incidence reported
- Bai J C, Andrush A, Matelo G et al. Fecal fat concentration in the differential diagnosis of steatorrhea. *Am J Gastroenterol* 1989;84(1):27-30. No prevalence or incidence reported
- Bai J C, Maurino E, Martinez C et al. Abnormal colonic transit time in untreated celiac sprue. *Acta Gastroenterol Latinoam* 1995;25(5):277-284. No prevalence or incidence reported
- Bai J C. Malabsorption syndromes. *Digestion* 1998;59(5):530-546. No prevalence or incidence reported
- Bai J, Moran C, Martinez C et al. Celiac sprue after surgery of the upper gastrointestinal tract. Report of 10 patients with special attention to diagnosis, clinical behavior, and follow-up. *J Clin Gastroenterol* 1991;13(5):521-524. No prevalence or incidence reported
- Baird I M, Walters R L, Sutton D R. Absorption of slow-release iron and effects of ascorbic acid in normal subjects and after partial gastrectomy. *Br Med J* 1974;4(5943):505-508. No prevalence or incidence reported
- Baker J, Sandhu B K. Nutrition, eating and gastrointestinal conditions in adolescence. *J R Coll Phys London* 2000;34(2):137-140. No prevalence or incidence reported
- Balakrishnan V. Management of chronic pancreatitis. *Tropical Gastroenterology - Official Journal of the Digestive Diseases Foundation* 1986;7(4):141-146. No prevalence or incidence reported
- Balas A, Vicario J L, Zambrano A et al. Absolute linkage of celiac disease and dermatitis herpetiformis to HLA-DQ. *Tissue Antigens* 1997;50(1):52-56. No prevalence or incidence reported
- Balducci-Silano P L, Layrisse Z E. HLA-DP and susceptibility to insulin-dependent diabetes mellitus in an ethnically mixed population. Associations with other HLA-alleles. *J Autoimmun* 1995;8(3):425-437. No prevalence or incidence reported
- Banerji N K, Hurwitz L J. Nervous system manifestations after gastric surgery. *Acta Neurol Scand* 1971;47(4):485-513. No prevalence or incidence reported
- Bansi D S, Chapman R W, Fleming K A. Prevalence and diagnostic role of antineutrophil cytoplasmic antibodies in inflammatory bowel disease. *Eur J Gastroenterol Hepatol* 1996;8(9):881-885. No prevalence or incidence reported
- Bansi D S, Fleming K A, Chapman R W. Importance of antineutrophil cytoplasmic antibodies in primary sclerosing cholangitis and ulcerative colitis: prevalence, titre, and IgG subclass. *Gut* 1996;38(3):384-389. No prevalence or incidence reported
- Banwell J G, Hutt M R, Leonard P J et al. Exocrine pancreatic disease and the malabsorption syndrome in tropical Africa. *Gut* 1967;8(4):388-401. No prevalence or incidence reported
- Banwell J G, Marsden P D, Blackman V et al. Hookworm infection and intestinal absorption amongst Africans in Uganda. *Am J Trop Med Hyg* 1967;16(3):304-308. No prevalence or incidence reported

- Barakat M H, Ali S M, Badawi A R et al. Peroral endoscopic duodenal biopsy in infants and children. *Acta Paediatr Scand* 1983;72(4):563-569. No prevalence or incidence reported
- Barbato M, Miglietta M R, Viola F et al. Impact of modification of diagnostic techniques and criteria on the presentation of celiac disease in the last 16 years. Observation in Rome. *Minerva Pediatr* 1996;48(9):359-363. No prevalence or incidence reported
- Bardella M T, Fraquelli M, Quatrini M et al. Prevalence of hypertransaminasemia in adult celiac patients and effect of gluten-free diet. *Hepatology* 1995;22(3):833-836. No prevalence or incidence reported
- Bardella M T, Fredella C, Prampolini L et al. Body composition and dietary intakes in adult celiac disease patients consuming a strict gluten-free diet. *Am J Clin Nutr* 2000;72(4):937-939. No prevalence or incidence reported
- Bardella M T, Fredella C, Prampolini L et al. Gluten sensitivity in monozygous twins: A long-term follow-up of five pairs. *Am J Gastroenterol* 2000;95(6):1503-1505. No prevalence or incidence reported
- Bardella M T, Minoli G, Radaelli F et al. Reevaluation of duodenal endoscopic markers in the diagnosis of celiac disease. *Gastroenterol Int* 2000;51(6):714-716. No prevalence or incidence reported
- Bardella M T, Minoli G, Ravizza D et al. Increased prevalence of celiac disease in patients with dyspepsia. *Arch Intern Med* 2000;160(10):1489-1491. Not a relevant screening group
- Bardella M T, Molteni N, Prampolini L et al. Need for follow up in coeliac disease. *Arch Dis Child* 1994;70(3):211-213. No prevalence or incidence reported
- Bardella M T, Molteni N, Quatrini M et al. Clinical, biochemical and histological abnormalities in adult celiac patients on gluten-free diet. *Gastroenterol Clin Biol* 1985;9(11):787-789. No prevalence or incidence reported
- Bardella M T, Vecchi M, Conte D et al. Chronic unexplained hypertransaminasemia may be caused by occult celiac disease. *Hepatology* 1999;29(3):654-657. Not a relevant screening group
- Barera G, Mora S, Brambilla P et al. Body composition in children with celiac disease and the effects of a gluten-free diet: a prospective case-control study. *Am J Clin Nutr* 2000;72(1):71-75. No prevalence or incidence reported
- Barlow J M, Johnson C D, Stephens D H. Celiac disease: how common is jejunoileal fold pattern reversal found at small-bowel follow-through?. *Ajr.American Journal of Roentgenology* 1996;166(3):575-577. No prevalence or incidence reported
- Baroncelli G I, Federico G, Bertelloni S et al. Assessment of bone quality by quantitative ultrasound of proximal phalanges of the hand and fracture rate in children and adolescents with bone and mineral disorders. *Pediatr Res* 2003;54(1):125-136. No prevalence or incidence reported
- Barr G D, Grehan M J. Coeliac disease. *Med J Aust* 1998;169(2):109-114. No prevalence or incidence reported
- Barr G, Cameron D, King S et al. Current status and management of coeliac disease. *Med Today* 2003;4(6):30-39. No prevalence or incidence reported
- Barry R E, Baker P, Read A E. Coeliac disease. The clinical presentation. *Clin Gastroenterol* 1974;3(1):55-69. No prevalence or incidence reported
- Barry R E, Morris J S, Kenwright S et al. Coeliac disease and malignancy. The possible importance of familial involvement. *Scand J Gastroenterol* 1971;6(3):205-207. No prevalence or incidence reported
- Barta L, Kosnai I, Molnar M et al. Simultaneous occurrence of diabetes mellitus and coeliac disease. *Acta Paediatr Hung* 1985;26(4):303-306. No prevalence or incidence reported
- Barton D M, Baskar V, Kamalakannan D et al. An assessment of care of paediatric and adolescent patients with diabetes in a large district general hospital. *Diabetic Medicine - a Journal of the British Diabetic Association* 2003;20(5):394-398. No prevalence or incidence reported
- Bateson M C, Hopwood D, MacGillivray J B. Jejunal morphology in multiple sclerosis. *Lancet* 1979;1(8126):1108-1110. No prevalence or incidence reported
- Beaumont D M, Mian M S. Coeliac disease in old age: 'A catch in the rye'. *Age Ageing* 1998;27(4):535-538. No prevalence or incidence reported
- Becker C. Clinical evaluation for osteoporosis. *Clin Geriatr Med* 2003;19(2):299-320. No prevalence or incidence reported
- Beckett C G, Ciclitira P J. Celiac disease. *Curr Opin Gastroenterol* 1997;13(2):107-111. No prevalence or incidence reported

- Beckett C. A gut issue. *Nurs Times* 1999;95(8):65-6, 69. No prevalence or incidence reported
- Behne D. Selenium. *Ann Nestle* 1994;52(3):107-117. No prevalence or incidence reported
- Bell I R, Schwartz G E, Peterson J M et al. Possible time-dependent sensitization to xenobiotics: self-reported illness from chemical odors, foods, and opiate drugs in an older adult population. *Arch Environ Health* 1993;48(5):315-327. No prevalence or incidence reported
- Bell I R, Schwartz G E, Peterson J M et al. Symptom and personality profiles of young adults from a college student population with self-reported illness from foods and chemicals. *J Am Coll Nutr* 1993;12(6):693-702. No prevalence or incidence reported
- Bell J I. The major histocompatibility complex and disease. *Curr Opin Immunol* 1989;2(1):114-116. No prevalence or incidence reported
- Bell J, Rassenti L, Smoot S et al. HLA-DQ beta-chain polymorphism linked to myasthenia gravis. *Lancet* 1986;1(8489):1058-1060. No prevalence or incidence reported
- Bell S, Green P H R, Kagnoff M F. American gastroenterological association medical position statement: Celiac sprue. *Gastroenterology* 2001;120(6):1522-1525. No prevalence or incidence reported
- Belloni Cesare, Avanzini Maria A, De Silvestri et al. No evidence of autoimmunity in 6-year-old children immunized at birth with recombinant hepatitis B vaccine. *Pediatrics* 2002;110(1 Pt 1):E4. No prevalence or incidence reported
- Berg N O, Lindberg T. Incidence of coeliac disease and transient gluten intolerance in children in a Swedish urban community. *Acta Paediatr Scand* 1979;68(3):397-400. Not a relevant screening geography
- Bernardini R, Novembre E, Ingargiola A et al. Prevalence and risk factors of latex sensitization in an unselected pediatric population. *J Allergy Clin Immunol* 1998;101(5):621-625. No prevalence or incidence reported
- Bernstein Charles N, Leslie William D, Leboff Meryl S. AGA technical review on osteoporosis in gastrointestinal diseases. *Gastroenterology* 2003;124(3):795-841. No prevalence or incidence reported
- Bernstein Charles N, Leslie William D. The pathophysiology of bone disease in gastrointestinal disease. *Eur J Gastroenterol Hepatol* 2003;15(8):857-864. No prevalence or incidence reported
- Berrill W T, Eade O E, Fitzpatrick P F. Bird Fancier's lung and jejunal villous atrophy. *Lancet* 1975;2(7943):1006-1008. No prevalence or incidence reported
- Berti I, Trevisiol C, Tommasini A et al. Usefulness of screening program for celiac disease in autoimmune thyroiditis. *Dig Dis Sci* 2000;45(2):403-406. No prevalence or incidence reported
- Betuel H, Gebuhrer L, Descos L et al. Adult celiac disease associated with HLA-DRw3 and -DRw7. *Tissue Antigens* 1980;15(3):231-238. No prevalence or incidence reported
- Bevan S, Popat S, Braegger C P et al. Contribution of the MHC region to the familial risk of coeliac disease. *J Med Genet* 1999;36(9):687-690. No prevalence or incidence reported
- Bevan S, Popat S, Houlston R S. Relative power of linkage and transmission disequilibrium test strategies to detect non-HLA linked coeliac disease susceptibility genes. *Gut* 1999;45(5):668-671. No prevalence or incidence reported
- Bhatnagar S, Bhan M K. Serological diagnosis of celiac disease. *Indian J Pediatr* 1999;66(1 Suppl):S26-S31. No prevalence or incidence reported
- Biagi F, Corazza G R. Gene and gliadin/gut and kidney. *Am J Gastroenterol* 2002;97(10):2486-2488. No prevalence or incidence reported
- Biagi F, Corazza G R. Tissue transglutaminase antibodies: Is sensitivity more important than specificity?. *Digestive and Liver Disease - Official Journal of the Italian Society of Gastroenterology and the Italian Association for the Study of the Liver* 2001;33(5):401-402. No prevalence or incidence reported
- Biagi F, Ellis H J, Parnell N D et al. A non-toxic analogue of a coeliac-activating gliadin peptide: a basis for immunomodulation?. *Aliment Pharmacol Ther* 1999;13(7):945-950. No prevalence or incidence reported
- Bianchi M L, Bardella M T. Bone and celiac disease. *Calcif Tissue Int* 2002;71(6):465-471. No prevalence or incidence reported
- Biamond I, Pena A S, Groenland F et al. Coeliac disease in The Netherlands: demographic data of a patient survey among the members of the Dutch Coeliac Society. *Neth J Med* 1987;31(5-6):263-268. No prevalence or incidence reported
- Bilbao J R, Martin-Pagola A, Vitoria J C et al. HLA-DRB1 and MHC class 1 chain-related A haplotypes in Basque families with celiac disease. *Tissue Antigens*

- 2002;60(1):71-76. No prevalence or incidence reported
- Bilbao J, Ramon Vitoria, Juan C et al. Immunoglobulin G autoantibodies against tissue-transglutaminase. A sensitive, cost-effective assay for the screening of celiac disease. *Autoimmunity* 2002;35(4):255-259. No prevalence or incidence reported
- Bini E J. Helicobacter pylori and iron deficiency anemia: Guilty as charged?. *Am J Med* 2001;111(6):495-497. No prevalence or incidence reported
- Birkbeck J A. Coeliac disease in a diabetic child. *Lancet* 1969;2(7618):496. No prevalence or incidence reported
- Bischoff S C, Mayer J H, Manns M P. Allergy and the gut. *Int Arch Allergy Immunol* 2000;121(4):270-283. No prevalence or incidence reported
- Bischoff S C, Mayer J, Wedemeyer J et al. Colonoscopic allergen provocation (COLAP): a new diagnostic approach for gastrointestinal food allergy. *Gut* 1997;40(6):745-753. No prevalence or incidence reported
- Bischoff S C. Mucosal allergy: role of mast cells and eosinophil granulocytes in the gut. *Bailliere's Clinical Gastroenterology* 1996;10(3):443-459. No prevalence or incidence reported
- Bizzaro N, Villalta D, Tonutti E et al. Association of celiac disease with connective tissue diseases and autoimmune diseases of the digestive tract. *Autoimmun Rev* 2003;2(6):358-363. No prevalence or incidence reported
- Bjorksten B. Allergy priming early in life. *Lancet* 1999;353(9148):167-168. No prevalence or incidence reported
- Bjorksten B. The role of the gastrointestinal tract in the development of respiratory hypersensitivities. *Toxicol Lett* 1996;86(2-3):85-88. No prevalence or incidence reported
- Bjorksten F, Backman A, Jarvinen K A et al. Immunoglobulin E specific to wheat and rye flour proteins. *Clin Allergy* 1977;7(5):473-483. No prevalence or incidence reported
- Bjornsson E, Janson C, Plaschke P et al. Prevalence of sensitization to food allergens in adult Swedes. *Annals of Allergy, Asthma & Immunology - Official Publication of the American College of Allergy, Asthma, & Immunology* 1996;77(4):327-332. No prevalence or incidence reported
- Black Corri, Kaye James A, Jick Hershel. Relation of childhood gastrointestinal disorders to autism: nested case-control study using data from the UK General Practice Research Database. *BMJ* 2002;325(7361):419-421. No prevalence or incidence reported
- Blanco A, Garrote J A, Alonso M et al. Soluble CD4 antigen is increased in active coeliac disease. *Adv Exp Med Biol* 1995;371b:1355-1358. No prevalence or incidence reported
- Blomme B, Gerlo E, Hauser B et al. Disaccharidase activities in Belgian children: Reference intervals and comparison with non-Belgian Caucasian children. *Acta Paediatr Int J Paediatr* 2003;92(7):806-810. No prevalence or incidence reported
- Bode S, Gudmand-Hoyer E. Incidence and clinical significance of lactose malabsorption in adult coeliac disease. *Scand J Gastroenterol* 1988;23(4):484-488. No prevalence or incidence reported
- Bode S, Gudmand-Hoyer E. Symptoms and haematologic features in consecutive adult coeliac patients. *Scand J Gastroenterol* 1996;31(1):54-60. No prevalence or incidence reported
- Bodmer W F. The HLA system and disease. The Oliver Sharpey Lecture 1979. *J R Coll Physicians Lond* 1980;14(1):43-50. No prevalence or incidence reported
- Boehm P, Nassimbeni G, Ventura A. Chronic non-specific diarrhoea in childhood: How often is it iatrogenic?. *Acta Paediatr Int J Paediatr* 1998;87(3):268-271. No prevalence or incidence reported
- Boersma B, Houwen R H J, Blum W F et al. Catch-up growth and endocrine changes in childhood celiac disease. *Endocrine changes during catch-up growth. Horm Res* 2002;58(Suppl 1):57-65. No prevalence or incidence reported
- Bognetti E, Riva M C, Bonfanti R et al. Growth changes in children and adolescents with short-term diabetes. *Diabetes Care* 1998;21(8):1226-1229. No prevalence or incidence reported
- Bolognesi E, Karell K, Percopo S et al. Additional factor in some HLA DR3/DQ2 haplotypes confers a fourfold increased genetic risk of celiac disease. *Tissue Antigens* 2003;61(4):308-316. No prevalence or incidence reported
- Bolsover W J, Hall M A, Vaughan R W et al. A family study confirms that the HLA-DP associations with celiac disease are the result of an extended HLA-DR3 haplotype. *Hum Immunol* 1991;31(2):100-108. No prevalence or incidence reported
- Bonamico M, Ballati G, Mariani P et al. Screening for coeliac disease: the meaning of low titers of anti-gliadin antibodies (AGA) in non-coeliac children. *Eur*

- J Epidemiol 1997;13(1):55-59. No prevalence or incidence reported
- Bonamico M, Bottaro G, Pasquino A M et al. Celiac disease and turner syndrome. J Pediatr Gastroenterol Nutr 1998;26(5):496-499. No prevalence or incidence reported
- Bonamico M, Mariani P, Danesi H M et al. Prevalence and clinical picture of celiac disease in italian down syndrome patients: a multicenter study. J Pediatr Gastroenterol Nutr 2001;33(2):139-143. Not a relevant screening group
- Bonamico M, Mariani P, Mazzilli M C et al. Frequency and clinical pattern of celiac disease among siblings of celiac children. J Pediatr Gastroenterol Nutr 1996;23(2):159-163. Not a relevant screening group
- Bonamico M, Mariani P, Mazzilli M C et al. Frequency and clinical pattern of celiac disease among siblings of celiac children. J Pediatr Gastroenterol Nutr 1996;23(2):159-163. Not a relevant screening group
- Bonamico M, Morellini M, Mariani P et al. HLA antigens and antigliadin antibodies in coeliac disease. Dis Markers 1991;9(6):313-317. No prevalence or incidence reported
- Bonamico M, Rasore-Quartino A, Mariani P et al. Down syndrome and coeliac disease: Usefulness of antigliadin and antiendomysium antibodies. Acta Paediatr Int J Paediatr 1996;85(12):1503-1505. No prevalence or incidence reported
- Bonamico M, Scire G, Mariani P et al. Short stature as the primary manifestation of monosymptomatic celiac disease. J Pediatr Gastroenterol Nutr 1992;14(1):12-16. No prevalence or incidence reported
- Bonamico M, Vania A, Monti S et al. Iron deficiency in children with celiac disease. J Pediatr Gastroenterol Nutr 1987;6(5):702-706. No prevalence or incidence reported
- Bonamico Margherita, Pasquino Anna M, Mariani Paolo et al. Prevalence and clinical picture of celiac disease in Turner syndrome. J Clin Endocrinol Metab 2002;87(12):5495-5498. Not a relevant screening group
- Bonifacio E, Ziegler A G, Hummel M et al. Gluten: is it also a determinant of islet autoimmunity?. Diabetes Metab Rev 1998;14(3):258-259. No prevalence or incidence reported
- Boniotto Michele, Braidia Laura, Spano Andrea et al. Variant mannose-binding lectin alleles are associated with celiac disease. Immunogenetics 2002;54(8):596-598. No prevalence or incidence reported
- Bontems P, Deprettere A, Cadranet S et al. The coeliac iceberg: a consensus in paediatrics. Acta Gastroenterol Belg 2000;63(2):157-162. No prevalence or incidence reported
- Book L, Hart A, Black J et al. Prevalence and clinical characteristics of celiac disease in Down syndrome in a US study. Am J Med Genet 2001;98(1):70-74. Not a relevant screening group
- Book Linda S. Diagnosing celiac disease in 2002: who, why, and how?. Pediatrics 2002;109(5):952-954. No prevalence or incidence reported
- Bottaro G, Cataldo F, Rotolo N et al. The clinical pattern of subclinical/silent celiac disease: an analysis on 1026 consecutive cases. Am J Gastroenterol 1999;94(3):691-696. Not a relevant screening group
- Bottaro G, Failla P, Rotolo N et al. Changes in coeliac disease behaviour over the years. Acta Paediatr 1993;82(6-7):566-568. Not a relevant screening test
- Boudraa G, Hachelaf W, Benbouabdellah M et al. Prevalence of coeliac disease in diabetic children and their first- degree relatives in west Algeria: screening with serological markers. Acta Paediatr 1996;412(Suppl):58-60. Not a relevant screening geography
- Bouguerra F, Babron M C, Eliaou J F et al. Synergistic effect of two HLA heterodimers in the susceptibility to celiac disease in Tunisia. Genet Epidemiol 1997;14(4):413-422. No prevalence or incidence reported
- Bouguerra F, Dugoujon J M, Babron M C et al. Susceptibility to coeliac disease in Tunisian children and GM immunoglobulin allotypes. European Journal of Immunogenetics - Official Journal of the British Society for Histocompatibility and Immunogenetics 1999;26(4):293-297. No prevalence or incidence reported
- Bourgain C, Genin E, Holopainen P et al. Use of closely related affected individuals for the genetic study of complex diseases in founder populations. Am J Hum Genet 2001;68(1):154-159. No prevalence or incidence reported
- Bourke M, O'Donovan M, Stevens F M et al. Alpha 1-antitrypsin phenotypes in coeliac patients and a control population in the west of Ireland. Ir J Med Sci 1993;162(5):171-172. No prevalence or incidence reported
- Bourke S, Murphy B, Stafford F et al. Population differences in intestinal permeability to chromium EDTA. 1988;157(9):287-289. No prevalence or incidence reported

- Boy M F, La Nasa G, Balestrieri A et al. Distribution of HLA-DPB1, -DQB1 -DQA1 alleles among Sardinian celiac patients. *Dis Markers* 1995;12(3):199-204. No prevalence or incidence reported
- Boyd S, Collins B J, Bell P M et al. Clinical presentation of coeliac disease in adult gastroenterological practice. *Ulster Med J* 1985;54(2):140-147. No prevalence or incidence reported
- Brady M S, Rickard K, Yu P L et al. Effectiveness and safety of small vs. large doses of enteric coated pancreatic enzymes in reducing steatorrhea in children with cystic fibrosis: a prospective randomized study. *Pediatr Pulmonol* 1991;10(2):79-85. No prevalence or incidence reported
- Braegger C P, MacDonald T T. The immunologic basis for celiac disease and related disorders. *Semin Gastrointest Dis* 1996;7(3):124-133. No prevalence or incidence reported
- Braga M, Zerbi A, Dal Cin S et al. Postoperative management of patients with total exocrine pancreatic insufficiency. *Br J Surg* 1990;77(6):669-672. No prevalence or incidence reported
- Bragelmann R, Armbrecht U, Rosemeyer D et al. The effect of pancreatic enzyme supplementation in patients with steatorrhea after total gastrectomy. *Eur J Gastroenterol Hepatol* 1999;11(3):231-237. No prevalence or incidence reported
- Brai M, Accardo P, Bellavia D. Polymorphism of the complement components in human pathology. *Annali Italiani Di Medicina Interna - Organo Ufficiale Della Societa Italiana Di Medicina Interna* 1994;9(3):167-172. No prevalence or incidence reported
- Brandt L J, Locke G R, Olden K et al. An evidence-based approach to the management of irritable bowel syndrome in North America. *Am J Gastroenterol* 2002;97(11 SUPPL.):S1-S26. No prevalence or incidence reported
- Brandtzaeg P, Baklien K. Characterization of the IgA immunocyte population and its product with excessive intestinal formation of IgA. *Clin Exp Immunol* 1977;30(1):77-88. No prevalence or incidence reported
- Branski D, Troncone R. Celiac disease: A reappraisal. *Eur J Pediatr* 1998;133(2):181-187. No prevalence or incidence reported
- Brautbar C, Freier S, Ashkenazi A et al. Histocompatibility determinants in Israeli Jewish patients with coeliac disease: population and family study. *Tissue Antigens* 1981;17(3):313-322. No prevalence or incidence reported
- Brautbar C, Zlotogora J, Laufer N et al. Do identical HLA-DR3 genes convey susceptibility to celiac disease and insulin dependent diabetes mellitus?. *Tissue Antigens* 1984;23(1):58-60. No prevalence or incidence reported
- Braverman D Z. Gallbladder contraction in patients with irritable bowel syndrome. *Isr J Med Sci* 1987;23(3):181-184. No prevalence or incidence reported
- Brett P M, Yiannakou J Y, Morris M A et al. A pedigree-based linkage study of coeliac disease: failure to replicate previous positive findings. *Ann Hum Genet* 1998;62(Pt 1):25-32. No prevalence or incidence reported
- Brett P M, Yiannakou J Y, Morris M A et al. Common HLA alleles, rather than rare mutants, confer susceptibility to coeliac disease. *Ann Hum Genet* 1999;63(Pt 3):217-225. No prevalence or incidence reported
- Brigden M L. A systematic approach to macrocytosis: Sorting out the causes. *Postgrad Med* 1995;97(5):171-172+175. No prevalence or incidence reported
- Brink S J. Pediatric, adolescent, and young-adult nutrition issues in IDDM. *Diabetes Care* 1988;11(2):192-200. No prevalence or incidence reported
- Brocchi E, Tomassetti P, Misitano B et al. Endoscopic markers in adult coeliac disease. *Digestive and Liver Disease - Official Journal of the Italian Society of Gastroenterology and the Italian Association for the Study of the Liver* 2002;34(3):177-182. No prevalence or incidence reported
- Brooklyn Trevor N, Di Mambro, Alexandra J et al. Patients over 45 years with iron deficiency require investigation. *Eur J Gastroenterol Hepatol* 2003;15(5):535-538. No prevalence or incidence reported
- Brown J C, EDITOR S, Matsuo Y et al. The regulation of insulin secretion by gastrointestinal hormones. *Gastrointestinal Function Regulation and Disturbances: Proceedings of the Seventh Symposium on the Regulation and Disturbances of Gastrointestinal Function Ic* 1989;3-20. No prevalence or incidence reported
- Brown M R, Lillibridge C B. When to think of celiac disease: the classical features of gluten sensitive enteropathy are absent. *Clin Pediatr (Phila)* 1975;14(1):76-82. No prevalence or incidence reported
- Bruno G, Cantani A, Ragno V et al. Natural history of IgE antibodies in children at risk for atopy. *Annals of Allergy, Asthma & Immunology - Official Publication*

- of the American College of Allergy, Asthma, & Immunology 1995;74(5):431-436. No prevalence or incidence reported
- Brusco G, Di Stefano M, Corazza G R. Increased red cell distribution width and coeliac disease. *Digestive and Liver Disease - Official Journal of the Italian Society of Gastroenterology and the Italian Association for the Study of the Liver* 2000;32(2):128-130. No prevalence or incidence reported
- Brusco G, Izzi L, Corazza G R. Tissue transglutaminase antibodies for coeliac disease screening. *Ital J Gastroenterol Hepatol* 1998;30(5):496-497. No prevalence or incidence reported
- Bryant D A, Mintz E D, Puhr N D et al. Colonic epithelial lymphocytosis associated with an epidemic of chronic diarrhea. *Am J Surg Pathol* 1996;20(9):1102-1109. No prevalence or incidence reported
- Budiarso A, Sunoto S, Hendarji H et al. Incidence of steatorrhoea in Indonesian infants. *Paediatr Indones* 1977;17(1-2):6-9. No prevalence or incidence reported
- Burgin-Wolff A, Bertele R M, Berger R et al. A reliable screening test for childhood celiac disease: fluorescent immunosorbent test for gliadin antibodies. A prospective multicenter study. *Eur J Pediatr* 1983;102(5):655-660. No prevalence or incidence reported
- Burgin-Wolff A, Dahlbom I, Hadziselimovic F et al. Antibodies against human tissue transglutaminase and endomysium in diagnosing and monitoring coeliac disease. *Scand J Gastroenterol* 2002;37(6):685-691. No prevalence or incidence reported
- Burks A W, Sampson H. Food allergies in children. *Curr Probl Pediatr* 1993;23(6):230-252. No prevalence or incidence reported
- Burrows R, Leiva L, Burgueno M et al. Bone mineral density (BMD) in children with celiac disease (CD): Its relation to puberty and calcium intake. *Nutr Res* 1999;19(4):493-499. No prevalence or incidence reported
- Bushara K O, Goebel S U, Shill H et al. Gluten sensitivity in sporadic and hereditary cerebellar ataxia. *Ann Neurol* 2001;49(4):540-543. No prevalence or incidence reported
- Businco L, Ziruolo M G, Ferrara M et al. Natural history of atopic dermatitis in childhood: an updated review and personal experience of a five-year follow-up. *Allergy* 1989;44(Suppl 9):70-78. No prevalence or incidence reported
- Buts J P, Morin C L, Roy C C et al. One-hour blood xylose test: a reliable index of small bowel function. *Eur J Pediatr* 1978;92(5):729-733. No prevalence or incidence reported
- Butterworth Jeffrey R, Cooper Brian T, Rosenberg William M C et al. The role of hemochromatosis susceptibility gene mutations in protecting against iron deficiency in celiac disease. *Gastroenterology* 2002;123(2):444-449. No prevalence or incidence reported
- Buyschaert M. Coeliac disease in patients with type 1 diabetes mellitus and auto-immune thyroid disorders. *Acta Gastro-Enterol Belg* 2003;66(3):237-240. Review article
- Cacciari E, Salardi S, Lazzari R et al. Short stature and celiac disease: a relationship to consider even in patients with no gastrointestinal tract symptoms. *Eur J Pediatr* 1983;103(5):708-711. No prevalence or incidence reported
- Cacciari E, Salardi S, Volta U et al. Antigliadin antibodies in coeliac children with short stature. *Lancet* 1985;2(8469-8470):1434 No prevalence or incidence reported
- Cacciari E, Salardi S, Volta U et al. Can antigliadin antibody detect symptomless coeliac disease in children with short stature?. *Lancet* 1985;1(8444):1469-1471. No prevalence or incidence reported
- Cacciari E, Salardi S, Volta U et al. Prevalence and characteristics of coeliac disease in type 1 diabetes mellitus. *Acta Paediatr Scand* 1987;76(4):671-672. Serology screen <1990
- Caffarelli C, Romanini E, Caruana P et al. Clinical food hypersensitivity: the relevance of duodenal immunoglobulin E-positive cells. *Pediatr Res* 1998;44(4):485-490. No prevalence or incidence reported
- Caffrey C, Hitman G A, Niven M J et al. HLA-DP and coeliac disease: family and population studies. *Gut* 1990;31(6):663-667. No prevalence or incidence reported
- Callender J E, Grantham-McGregor S M, Walker S P et al. Treatment effects in Trichuris dysentery syndrome. *Acta Paediatr* 1994;83(11):1182-1187. No prevalence or incidence reported
- Callender S T, Warner G T. Iron absorption from bread. *Am J Clin Nutr* 1968;21(10):1170-1174. No prevalence or incidence reported
- Calsbeek Hiske, Rijken Mieke, Bekkers Marc J T M et al. Social position of adolescents with chronic digestive disorders. *Eur J Gastroenterol Hepatol*

- 2002;14(5):543-549. No prevalence or incidence reported
- Cameron A J, Hoffman H N. Zollinger-Ellison syndrome. Clinical features and long-term follow-up. *Mayo Clin Proc* 1974;49(1):44-51. No prevalence or incidence reported
- Campbell C B, Roberts R K, Cowen A E. The changing clinical presentation of coeliac disease in adults. *Med J Aust* 1977;1(4):89-93. No prevalence or incidence reported
- Candy D C, Howard F M, McNeish A S. Familial inherited abnormalities: miscellaneous disorders. *Clin Gastroenterol* 1982;11(1):207-229. No prevalence or incidence reported
- Capristo E, Addolorato G, Mingrone G et al. Changes in body composition, substrate oxidation, and resting metabolic rate in adult celiac disease patients after a 1-y gluten-free diet treatment. *Am J Clin Nutr* 2000;72(1):76-81. No prevalence or incidence reported
- Carlsson A, Axelsson I, Borulf S et al. Prevalence of IgA-anti gliadin antibodies and IgA-antiendomysium antibodies related to celiac disease in children with Down syndrome. *Pediatrics* 1998;101(2):272-275. Not a relevant screening group
- Carlsson A. Coeliac disease in different child populations. *Scand J Nutr Naringsforsk* 2001;45(4):186-187. Review article
- Carlsson Annelie K, Lindberg Bengt A, Bredberg Anders C A et al. Enterovirus infection during pregnancy is not a risk factor for celiac disease in the offspring. *J Pediatr Gastroenterol Nutr* 2002;35(5):649-652. No prevalence or incidence reported
- Carnicer J, Farre C, Varea V et al. Prevalence of coeliac disease in Down Syndrome. *Eur J Gastroenterol Hepatol* 2001;13(3):263-267. Not a relevant screening group
- Carpenter C B. Autoimmunity and HLA. *J Clin Immunol* 1982;2(3):157-165. No prevalence or incidence reported
- Carratu R, Secondulfo M, de Magistris L et al. Altered intestinal permeability to mannitol in diabetes mellitus type I. *J Pediatr Gastroenterol Nutr* 1999;28(3):264-269. No prevalence or incidence reported
- Carrington J M, Hewitt C J, Dowsett L R et al. The prevalence of coeliac disease in Otago. *N Z Med J* 1987;100(828):460-462. Serology screen <1990
- Carrington J M. Coeliac disease: an analysis of Coeliac Society membership records. *N Z Med J* 1986;99(800):279-281. No prevalence or incidence reported
- Carroccio A, Fontana M, Spagnuolo M I et al. Pancreatic dysfunction and its association with fat malabsorption in HIV infected children. *Gut* 1998;43(4):558-563. No prevalence or incidence reported
- Carroccio A, Iacono G, Montalto G et al. Pancreatic enzyme therapy in childhood celiac disease. A double-blind prospective randomized study. *Dig Dis Sci* 1995;40(12):2555-2560. No prevalence or incidence reported
- Carroccio A, Iacono G, Montalto G et al. Pancreatic insufficiency in celiac disease is not dependent on nutritional status. *Dig Dis Sci* 1994;39(10):2235-2242. No prevalence or incidence reported
- Carroccio A, Iannitto E, Cavataio F et al. Sideropenic anemia and celiac disease: one study, two points of view. *Dig Dis Sci* 1998;43(3):673-678. No prevalence or incidence reported
- Carroccio A, Pardo F, Montalto G et al. Use of famotidine in severe exocrine pancreatic insufficiency with persistent maldigestion on enzymatic replacement therapy. A long-term study in cystic fibrosis. *Dig Dis Sci* 1992;37(9):1441-1446. No prevalence or incidence reported
- Carroccio Antonio, Iannitto Emilio, Di Prima et al. Screening for celiac disease in non-Hodgkin's lymphoma patients: a serum anti-transglutaminase-based approach. *Dig Dis Sci* 2003;48(8):1530-1536. No prevalence or incidence reported
- Carswell F, Gibson A A, McAllister T A. Giardiasis and coeliac disease. *Arch Dis Child* 1973;48(6):414-418. No prevalence or incidence reported
- Carta Mauro, Giovanni Hardoy, Maria Carolina et al. Association between panic disorder, major depressive disorder and celiac disease: a possible role of thyroid autoimmunity. *J Psychosom Res* 2002;53(3):789-793. No prevalence or incidence reported
- Casellas F, Chicharro L, Malagelada J R. Potential usefulness of hydrogen breath test with D-xylose in clinical management of intestinal malabsorption. *Dig Dis Sci* 1993;38(2):321-327. No prevalence or incidence reported
- Casellas F, Sardi J, De Torres I et al. Hydrogen breath test with D-xylose for celiac disease screening is as useful in the elderly as in other age groups. *Dig Dis Sci* 2001;46(10):2201-2205. No prevalence or incidence reported

- Caspary W F, Stein J. Diseases of the small intestine. *Eur J Gastroenterol Hepatol* 1999;11(1):21-25. No prevalence or incidence reported
- Castellino F, Scaglione N, Grosso S B et al. A novel method for detecting IgA endomysial antibodies by using human umbilical vein endothelial cells. *Eur J Gastroenterol Hepatol* 2000;12(1):45-49. No prevalence or incidence reported
- Castro M, Crino A, Papadatou B et al. Down Syndrome and celiac disease: the prevalence of high IgA-antigliadin antibodies and HLA-DR and DQ antigens in trisomy 21. *J Pediatr Gastroenterol Nutr* 1993;16(3):265-268. Not a relevant screening group
- Cataldo F, Lio D, Marino V et al. Cytokine genotyping (TNF and IL-10) in patients with celiac disease and selective IgA deficiency. *Am J Gastroenterol* 2003;98(4):850-856. No prevalence or incidence reported
- Cataldo F, Lio D, Marino V et al. IgG(1) antiendomysium and IgG antitissue transglutaminase (anti-tTG) antibodies in coeliac patients with selective IgA deficiency. Working Groups on Celiac Disease of SIGEP and Club del Tenue. *Gut* 2000;47(3):366-369. No prevalence or incidence reported
- Cataldo F, Marino V, Bottaro G et al. Celiac disease and selective immunoglobulin A deficiency. *Eur J Pediatr* 1997;131(2):306-308. No prevalence or incidence reported
- Cataldo F, Marino V, Di Stefano P. Celiac disease and risk of atopy in childhood. *Pediatr Asthma Allergy Immunol* 2001;15(2):77-80. No prevalence or incidence reported
- Cataldo F, Marino V, Ventura A et al. Prevalence and clinical features of selective immunoglobulin A deficiency in coeliac disease: an Italian multicentre study. Italian Society of Paediatric Gastroenterology and Hepatology (SIGEP) and "Club del Tenue" Working Groups on Coeliac Disease. *Gut* 1998;42(3):362-365. No prevalence or incidence reported
- Cataldo F, Ventura A, Lazzari R et al. Antiendomysium antibodies and coeliac disease: solved and unsolved questions. An Italian multicentre study. *Acta Paediatr* 1995;84(10):1125-1131. No prevalence or incidence reported
- Cataldo Francesco, Marino Vincenzo. Increased prevalence of autoimmune diseases in first-degree relatives of patients with celiac disease. *J Pediatr Gastroenterol Nutr* 2003;36(4):470-473. No prevalence or incidence reported
- Catassi C, Doloretta Macis M, Ratsch I M et al. The distribution of DQ genes in the Saharawi population provides only a partial explanation for the high celiac disease prevalence. *Tissue Antigens* 2001;58(6):402-406. No prevalence or incidence reported
- Catassi C, Fabiani E, Ratsch I M et al. Celiac disease in the general population: should we treat asymptomatic cases?. *J Pediatr Gastroenterol Nutr* 1997;24(5):S10-S12. No prevalence or incidence reported
- Catassi C, Fabiani E. The spectrum of coeliac disease in children. *Bailliere's Clinical Gastroenterology* 1997;11(3):485-507. No prevalence or incidence reported
- Catassi C, Fornaroli F, Fasano A. Celiac disease: From basic immunology to bedside practice. *Clin Appl Immunol Rev* 2002;3(1-2):61-71. No prevalence or incidence reported
- Catassi C, Guerrieri A, Bartolotta E. Antigliadin antibodies at onset of diabetes in children. *Lancet* 1987;2(8551):158. No prevalence or incidence reported
- Catassi C, Ratsch I-M, Gandolfi L et al. Why is coeliac disease endemic in the people of the Sahara?. *Lancet* 1999;354(9179):647-648. No prevalence or incidence reported
- Catassi Carlo, Fabiani Elisabetta, Corrao Giovanni et al. Risk of non-Hodgkin lymphoma in celiac disease. *Jama - the Journal of the American Medical Association* 2002;287(11):1413-1419. No prevalence or incidence reported
- Catino M, Tumini S, Mezzetti A et al. Coeliac disease and diabetes mellitus in children: A non casual association. *Diabetes Nutr Metab Clin Exp* 1998;11(5):296-302. No prevalence or incidence reported
- Cavell B, Stenhammar L, Ascher H et al. Increasing incidence of childhood coeliac disease in Sweden. Results of a national study. *Acta Paediatr* 1992;81(8):589-592. Serology screen <1990
- Ceccarelli M, Caiulo V A, Ughi C. Changing pattern of coeliac disease in western Toscana. *Acta Paediatr Scand* 1991;80(5):547-548. No prevalence or incidence reported
- Cellier C, Cervoni J P, Patey N et al. Gluten-free diet induces regression of T-cell activation in the rectal mucosa of patients with celiac disease. *Am J Gastroenterol* 1998;93(9):1527-1530. No prevalence or incidence reported
- Cellier C, Cuillerier E, Patey-Mariaud de et al. Push enteroscopy in celiac sprue and refractory sprue. *Gastroenterol Int* 1999;50(5):613-617. No prevalence or incidence reported

- Cellier C, Delabesse E, Helmer C et al. Refractory sprue, coeliac disease, and enteropathy-associated T-cell lymphoma. French Coeliac Disease Study Group. *Lancet* 2000;356(9225):203-208. No prevalence or incidence reported
- Cervetto J L, Ramonet M, Nahmod L H et al. Giardiasis. Functional, immunological and histological study of the small bowel. Therapeutic trial with a single dose of tinidazole. *Arq Gastroenterol* 1987;24(2):102-112. No prevalence or incidence reported
- Challacombe D N, Mecrow I K, Elliott K et al. Changing infant feeding practices and declining incidence of coeliac disease in West Somerset. *Arch Dis Child* 1997;77(3):206-209. No prevalence or incidence reported
- Challacombe D N. The incidence of coeliac disease and early weaning. *Arch Dis Child* 1983;58(5):326-326. No prevalence or incidence reported
- Chambers T L. Coexistent coeliac disease, diabetes mellitus, and hyperthyroidism. *Arch Dis Child* 1975;50(2):162-164. No prevalence or incidence reported
- Chapman R W, Laidlow J M, Colin-Jones D et al. Increased prevalence of epilepsy in coeliac disease. *Br Med J* 1978;2(6132):250-251. No prevalence or incidence reported
- Chari S T, Mohan V, Jayanthi V et al. Comparative study of the clinical profiles of alcoholic chronic pancreatitis and tropical chronic pancreatitis in Tamil Nadu, south India. *Pancreas* 1992;7(1):52-58. No prevalence or incidence reported
- Charron D. HLA class II disease associations: Molecular basis. *J Autoimmun* 1992;5(Suppl A):45-53. No prevalence or incidence reported
- Charron D. Molecular basis of human leukocyte antigen class II disease associations. *Adv Immunol* 1990;48(-):107-159. No prevalence or incidence reported
- Chartrand L J, Russo P A, Duhaime A G et al. Wheat starch intolerance in patients with coeliac disease. *J Am Diet Assoc* 1997;97(6):612-618. No prevalence or incidence reported
- Chatzicostas Costantinos, Roussomoustakaki Maria, Drygiannakis Dimitrios et al. Primary biliary cirrhosis and autoimmune cholangitis are not associated with coeliac disease in Crete. *Bmc Gastroenterology Electronic Resource* 2002;2(1):5. No prevalence or incidence reported
- Chernavsky Alejandra C, Rubio Andrea E, Vanzulli Silvia et al. Evidences of the involvement of Bak, a member of the Bcl-2 family of proteins, in active coeliac disease. *Autoimmunity* 2002;35(1):29-37. No prevalence or incidence reported
- Chiechi L M, Valerio T, Loizzi P. Postmenopausal osteoporosis and celiac disease. *Clin Exp Obstet Gynecol* 2002;29(3):187-188. No prevalence or incidence reported
- Chimenti C, Pieroni M, Frustaci A. Celiac disease in idiopathic dilated cardiomyopathy. *Ital Heart J* 2001;2(9):658-659. No prevalence or incidence reported
- Chin R L, Sander H W, Brannagan T H et al. Celiac neuropathy. *Neurology* 2003;60(10):1581-1585. No prevalence or incidence reported
- Chinen J, Shearer W T. Basic and clinical immunology. *J Allergy Clin Immunol* 2003;111(Suppl 3):S813-S818. No prevalence or incidence reported
- Chitturi S, Farrell G C. Etiopathogenesis of nonalcoholic steatohepatitis. *Semin Liver Dis* 2001;21(1):27-41. No prevalence or incidence reported
- Chorzelski T P, Olszewska M, Jarzabek-Chorzelska M et al. Is chronic ulcerative stomatitis an entity? Clinical and immunological findings in 18 cases. *Eur J Dermatol* 1998;8(4):261-265. No prevalence or incidence reported
- Ciacci C, Cavallaro R, Romano R et al. Increased risk of surgery in undiagnosed celiac disease. *Dig Dis Sci* 2001;46(10):2206-2208. No prevalence or incidence reported
- Ciacci C, Cirillo M, Auremma G et al. Celiac disease and pregnancy outcome. *Am J Gastroenterol* 1996;91(4):718-722. No prevalence or incidence reported
- Ciacci C, Cirillo M, Giorgetti G et al. Low plasma cholesterol: a correlate of nondiagnosed celiac disease in adults with hypochromic anemia. *Am J Gastroenterol* 1999;94(7):1888-1891. No prevalence or incidence reported
- Ciacci C, Cirillo M, Mellone M et al. Hypocalciuria in overt and subclinical celiac disease. *Am J Gastroenterol* 1995;90(9):1480-1484. No prevalence or incidence reported
- Ciacci C, Cirillo M, Sollazzo R et al. Gender and clinical presentation in adult celiac disease. *Scand J Gastroenterol* 1995;30(11):1077-1081. No prevalence or incidence reported
- Ciacci C, De Rosa A, de Michele G et al. Sexual behaviour in untreated and treated coeliac patients. *Eur J Gastroenterol Hepatol* 1998;10(8):649-651. No prevalence or incidence reported

Ciacci C, Di Vizio D, Seth R et al. Selective reduction of intestinal trefoil factor in untreated coeliac disease. *Clin Exp Immunol* 2002;130(3):526-531. No prevalence or incidence reported

Ciacci C, Maurelli L, Klain M et al. Effects of dietary treatment on bone mineral density in adults with celiac disease: factors predicting response. *Am J Gastroenterol* 1997;92(6):992-996. No prevalence or incidence reported

Ciacci C, Squillante A, Rendina D et al. Helicobacter pylori infection and peptic disease in coeliac disease. *Eur J Gastroenterol Hepatol* 2000;12(12):1283-1287. No prevalence or incidence reported

Ciacci Carolina, Cirillo Massimo, Cavallaro Raimondo et al. Long-term follow-up of celiac adults on gluten-free diet: prevalence and correlates of intestinal damage. *Digestion* 2002;66(3):178-185. No prevalence or incidence reported

Ciacci Carolina, Iavarone Alessandro, Siniscalchi Monica et al. Psychological dimensions of celiac disease: toward an integrated approach. *Dig Dis Sci* 2002;47(9):2082-2087. No prevalence or incidence reported

Ciampolini M, Bini S. Serum lipids in celiac children. *J Pediatr Gastroenterol Nutr* 1991;12(4):459-460. No prevalence or incidence reported

Ciclitira P J, Hall M A. Coeliac disease. *Bailliere's Clin Gastroenterol* 1990;4(1):43-59. No prevalence or incidence reported

Ciclitira P J, Sturgess R. Clinicopathologic mechanisms in celiac disease. *Curr Opin Gastroenterol* 1992;8(2):262-267. No prevalence or incidence reported

Ciclitira P J. Coeliac disease: foreword. *Digestive and Liver Disease - Official Journal of the Italian Society of Gastroenterology and the Italian Association for the Study of the Liver* 2002;34(3):214-215. No prevalence or incidence reported

Ciclitira P J. Recent advances in coeliac disease. *Clin Med* 2003;3(2):166-169. No prevalence or incidence reported

Clemente M G, Musu M P, Frau F et al. Immune reaction against the cytoskeleton in coeliac disease. *Gut* 2000;47(4):520-526. No prevalence or incidence reported

Clemente Maria, Grazia Musu, Maria Paola et al. Antitissue transglutaminase antibodies outside celiac disease. *J Pediatr Gastroenterol Nutr* 2002;34(1):31-34. No prevalence or incidence reported

Clements M R, Davies M, Hayes M E et al. The role of 1,25-dihydroxyvitamin D in the mechanism of acquired vitamin D deficiency. *Clin Endocrinol (Oxf)* 1992;37(1):17-27. No prevalence or incidence reported

Clerget-Darpoux F, Bouguerra F, Kastally R et al. High risk genotypes for celiac disease. *Comptes Rendus De L'academie Des Sciences.Serie Iii, Sciences De La Vie* 1994;317(10):931-936. No prevalence or incidence reported

Clot F, Babron M C, Percopo S et al. Study of two ectopeptidases in the susceptibility to celiac disease: two newly identified polymorphisms of dipeptidylpeptidase IV. *J Pediatr Gastroenterol Nutr* 2000;30(4):464-466. No prevalence or incidence reported

Clot F, Fulchignoni-Lataud M C, Renoux C et al. Linkage and association study of the CTLA-4 region in coeliac disease for Italian and Tunisian populations. *Tissue Antigens* 1999;54(5):527-530. No prevalence or incidence reported

Clot F, Gianfrani C, Babron M C et al. HLA-DR53 molecules are associated with susceptibility to celiac disease and selectively bind gliadin-derived peptides. *Immunogenetics* 1999;49(9):800-807. No prevalence or incidence reported

Cockel R, Anderson C M, Hill E E et al. Familial steatorrhoea with calcification of the basal ganglia and mental retardation. *Gut* 1970;11(12):1064. No prevalence or incidence reported

Cockel R, Hill E E, Rushton D I et al. Familial steatorrhoea with calcification of the basal ganglia and mental retardation. *Q J Med* 1973;42(168):771-783. No prevalence or incidence reported

Cogulu O, Ozkinay F, Gunduz C et al. Celiac disease in children with down syndrome: Importance of follow-up and serologic screening. *Pediatr Int* 2003;45(4):395-399. No prevalence or incidence reported

Colaco J, Egan-Mitchell B, Stevens F M et al. Compliance with gluten free diet in coeliac disease. *Arch Dis Child* 1987;62(7):706-708. No prevalence or incidence reported

Cole S G, Kagnoff M F. Celiac disease. *Annu Rev Nutr* 1985;5:241-266. No prevalence or incidence reported

Coleman M D. Dapsone-mediated agranulocytosis: Risks, possible mechanisms and prevention. *Toxicology* 2001;162(1):53-60. No prevalence or incidence reported

- Colle I, Van Vlierberghe H. Diagnosis and therapeutic problems of primary sclerosing cholangitis. *Acta Gastro-Enterol Belg* 2003;66(2):155-159. No prevalence or incidence reported
- Collin P, Hallstrom O, Maki M et al. Atypical coeliac disease found with serologic screening. *Scand J Gastroenterol* 1990;25(3):245-250. No prevalence or incidence reported
- Collin P, Helin H, Maki M et al. Follow-up of patients positive in reticulin and gliadin antibody tests with normal small-bowel biopsy findings. *Scand J Gastroenterol* 1993;28(7):595-598. No prevalence or incidence reported
- Collin P, Kaukinen K, Maki M. Clinical features of celiac disease today. *Dig Dis* 1999;17(2):100-106. No prevalence or incidence reported
- Collin P, Korpela M, Hallstrom O et al. Rheumatic complaints as a presenting symptom in patients with coeliac disease. *Scand J Rheumatol* 1992;21(1):20-23. No prevalence or incidence reported
- Collin P, Pukkala E, Reunala T. Malignancy and survival in dermatitis herpetiformis: a comparison with coeliac disease. *Gut* 1996;38(4):528-530. No prevalence or incidence reported
- Collin P, Reunala T, Pukkala E et al. Coeliac disease--associated disorders and survival. *Gut* 1994;35(9):1215-1218. No prevalence or incidence reported
- Collin P, Reunala T. Recognition and management of the cutaneous manifestations of celiac disease: A guide for dermatologists. *Am J Clin Dermatol* 2003;4(1):13-20. No prevalence or incidence reported
- Collin P, Salmi J, Hallstrom O et al. Autoimmune thyroid disorders and coeliac disease. *Eur J Endocrinol* 1994;130(2):137-140. No prevalence or incidence reported
- Collin P, Salmi J, Hallstrom O et al. High frequency of coeliac disease in adult patients with type-I diabetes. *Scand J Gastroenterol* 1989;24(1):81-84. Not a relevant screening geography
- Collin P, Vilska S, Heinonen P K et al. Infertility and coeliac disease. *Gut* 1996;39(3):382-384. No prevalence or incidence reported
- Collin Pekka, Kaukinen Katri, Valimaki Matti et al. Endocrinological disorders and celiac disease. *Endocr Rev* 2002;23(4):464-483. No prevalence or incidence reported
- Collin Pekka, Syrjanen Jaana, Partanen Jukka et al. Celiac disease and HLA DQ in patients with IgA nephropathy. *Am J Gastroenterol* 2002;97(10):2572-2576. Not a relevant screening group
- Collins B J, Bell P M, Boyd S et al. Endocrine and exocrine pancreatic function in treated coeliac disease. *Pancreas* 1986;1(2):143-147. No prevalence or incidence reported
- Colomina M J, Puig L, Godet C et al. Prevalence of asymptomatic cardiac valve anomalies in idiopathic scoliosis. *Pediatr Cardiol* 2002;23(4):426-429. No prevalence or incidence reported
- Colonna M, Bresnahan M, Bahram S et al. Allelic variants of the human putative peptide transporter involved in antigen processing. *Proc Natl Acad Sci U S A* 1992;89(9):3932-3936. No prevalence or incidence reported
- Combarros O, Infante J, Lopez-Hoyos M et al. Celiac disease and idiopathic cerebellar ataxia. *Neurology* 2000;54(12):2346. No prevalence or incidence reported
- Compston J. Is fracture risk increased in patients with coeliac disease?. *Gut* 2003;52(4):459-460. No prevalence or incidence reported
- Congia M, Cucca F, Frau F et al. A gene dosage effect of the DQA1\*0501/DQB1\*0201 allelic combination influences the clinical heterogeneity of celiac disease. *Hum Immunol* 1994;40(2):138-142. No prevalence or incidence reported
- Congia M, Frau F, Lampis R et al. A high frequency of the A30, B18, DR3, DRw52, DQw2 extended haplotype in Sardinian celiac disease patients: further evidence that disease susceptibility is conferred by DQ A1\*0501, B1\*0201. *Tissue Antigens* 1992;39(2):78-83. No prevalence or incidence reported
- Cook H B, Burt M J, Collett J A et al. Adult coeliac disease: prevalence and clinical significance. *J Gastroenterol Hepatol* 2000;15(9):1032-1036. Not a relevant screening geography
- Cooke W T. Symposium. Crohn's disease: medical management. *Dis Colon Rectum* 1975;18(3):194-197. No prevalence or incidence reported
- Cooper A, Brew S, De Lusignan S. The effectiveness of blood tests in detecting secondary osteoporosis or mimicking conditions in postmenopausal women. *Br J Gen Pract* 2002;52(477):311-313. No prevalence or incidence reported
- Cooper B T, Holmes G K, FPERGUSON R et al. Proceedings: Chronic diarrhoea and gluten sensitivity. *Gut* 1976;17(5):398. No prevalence or incidence reported
- Corazza G R, Biagi F, Volta U et al. Autoimmune enteropathy and villous atrophy in adults. *Lancet* 1997;350(9071):106-109. No prevalence or incidence reported

Corazza G R, Caletti G C, Lazzari R et al. Scalloped duodenal folds in childhood celiac disease. *Gastroenterol Int* 1993;39(4):543-545. No prevalence or incidence reported

Corazza G R, Di Sario A, Cecchetti L et al. Bone mass and metabolism in patients with celiac disease. *Gastroenterology* 1995;109(1):122-128. No prevalence or incidence reported

Corazza G R, Di Sario A, Sacco G et al. Subclinical coeliac disease: an anthropometric assessment. *J Intern Med* 1994;236(2):183-187. No prevalence or incidence reported

Corazza G R, Di Stefano M, Jorizzo R A et al. Propeptide of type I procollagen is predictive of posttreatment bone mass gain in adult celiac disease. *Gastroenterology* 1997;113(1):67-71. No prevalence or incidence reported

Corazza G R, Frisoni M, Filipponi C et al. Investigation of QT interval in adult coeliac disease. *Br Med J* 1992;304(6837):1285. No prevalence or incidence reported

Corazza G R, Frisoni M, Treggiari E A et al. Subclinical celiac sprue. Increasing occurrence and clues to its diagnosis. *J Clin Gastroenterol* 1993;16(1):16-21. Not a relevant screening test

Corazza G R, Gasbarrini G. Coeliac disease in adults. *Bailliere's Clinical Gastroenterology* 1995;9(2):329-350. No prevalence or incidence reported

Corazza G R, Zoli G, Di Sabatino A et al. A reassessment of splenic hypofunction in celiac disease. *Am J Gastroenterol* 1999;94(2):391-397. No prevalence or incidence reported

Cornes J S. Hodgkin's disease of the gastrointestinal tract. *Proc R Soc Med* 1967;60(8):732-733. No prevalence or incidence reported

Corrao G, Corazza G R, Andreani M L et al. Serological screening of coeliac disease: choosing the optimal procedure according to various prevalence values. *Gut* 1994;35(6):771-775. No prevalence or incidence reported

Corrao G, Corazza G R, Bagnardi V et al. Mortality in patients with coeliac disease and their relatives: a cohort study. *Lancet* 2001;358(9279):356-361. No prevalence or incidence reported

Cottone M, Marrone C, Casa A et al. Familial occurrence of inflammatory bowel disease in celiac disease. *Inflamm Bowel Dis* 2003;9(5):321-323. No prevalence or incidence reported

Cottone M, Termini A, Oliva L et al. Mortality and causes of death in celiac disease in a Mediterranean area. *Dig Dis Sci* 1999;44(12):2538-2541. No prevalence or incidence reported

Cottrill C, Glueck C J, Leuba V et al. Familial homozygous hypobetalipoproteinemia. *Metabolism-Clinical and Experimental* 1974;23(8):779-791. No prevalence or incidence reported

Cowan B, Satija V K, Malvea B P. Steatorrhea in the Punjab: the results of a village survey. *Am J Trop Med Hyg* 1971;74(6):137-140. No prevalence or incidence reported

Cowan B. Malnutrition and malabsorption: studies in the Punjab. *Am J Clin Nutr* 1972;25(11):1234-1235. No prevalence or incidence reported

Cox M A, Iqbal T H, Cooper B T et al. An analytical method for the quantitation of mannitol and disaccharides in serum: a potentially useful technique in measuring small intestinal permeability in vivo. *Clin Chim Acta* 1997;263(2):197-205. No prevalence or incidence reported

Crandall C. Laboratory workup for osteoporosis: Which tests are most cost-effective?. *Postgrad Med* 2003;114(3):35-44. No prevalence or incidence reported

Cremata J A, Sorell L, Montesino R et al. Hypogalactosylation of serum IgG in patients with coeliac disease. *Clin Exp Immunol* 2003;133(3):422-429. No prevalence or incidence reported

Crenn Pascal, Vahedi Kouroche, Lavergne-Slove Anne et al. Plasma citrulline: A marker of enterocyte mass in villous atrophy-associated small bowel disease. *Gastroenterology* 2003;124(5):1210-1219. No prevalence or incidence reported

Croft D N. Body iron loss and cell loss from epithelia. *Proc R Soc Med* 1970;63(12):1221-1224. No prevalence or incidence reported

Cronin C C, Jackson L M, Feighery C et al. Coeliac disease and epilepsy. *Qjm - Monthly Journal of the Association of Physicians* 1998;91(4):303-308. No prevalence or incidence reported

Cronin C C, Shanahan F. Exploring the iceberg - The spectrum of celiac disease. *Am J Gastroenterol* 2003;98(3):518-520. No prevalence or incidence reported

Cronin C C, Shanahan F. Insulin-dependent diabetes mellitus and coeliac disease. *Lancet* 1997;349(9058):1096-1097. No prevalence or incidence reported

- Cronin C C, Shanahan F. Why is celiac disease so common in Ireland?. *Perspect Biol Med* 2001;44(3):342-352. No prevalence or incidence reported
- Crowe J P, Falini N P. Gluten in pharmaceutical products. *Am J Health-Syst Pharm* 2001;58(5):396-401. No prevalence or incidence reported
- Csizmadia C G, Mearin M L, Oren A et al. Accuracy and cost-effectiveness of a new strategy to screen for celiac disease in children with Down syndrome. *Eur J Pediatr* 2000;137(6):756-761. Not a relevant screening group
- Cudworth A G, Woodrow J C. HL-A system and diabetes mellitus. *Diabetes* 1975;24(4):345-349. No prevalence or incidence reported
- Cummins A G, Thompson F M, Butler R N et al. Improvement in intestinal permeability precedes morphometric recovery of the small intestine in coeliac disease. *Clinical Science (London, England - 1979)* 2001;100(4):379-386. No prevalence or incidence reported
- Cunningham A S, Jelliffe D B, Jelliffe E F. Breast-feeding and health in the 1980s: a global epidemiologic review. *Eur J Pediatr* 1991;118(5):659-666. No prevalence or incidence reported
- Cuoco L, Cammarota G, Jorizzo R A et al. Link between *Helicobacter pylori* infection and iron-deficiency anaemia in patients with coeliac disease. *Scand J Gastroenterol* 2001;36(12):1284-1288. No prevalence or incidence reported
- Cuoco L, Cammarota G, Tursi A et al. Disappearance of gastric mucosa-associated lymphoid tissue in coeliac patients after gluten withdrawal. *Scand J Gastroenterol* 1998;33(4):401-405. No prevalence or incidence reported
- Cuoco L, Certo M, Jorizzo R A et al. Prevalence and early diagnosis of coeliac disease in autoimmune thyroid disorders. *Ital J Gastroenterol Hepatol* 1999;31(4):283-287. No prevalence or incidence reported
- Cuomo A, Romano M, Rocco A et al. Reflux oesophagitis in adult coeliac disease: beneficial effect of a gluten free diet. *Gut* 2003;52(4):514-517. No prevalence or incidence reported
- Curione M, Barbato M, De Biase L et al. Prevalence of coeliac disease in idiopathic dilated cardiomyopathy. *Lancet* 1999;354(9174):222-223. No prevalence or incidence reported
- Czaja A J. Autoimmune liver disease. *Curr Opin Gastroenterol* 1999;15(3):240-248. No prevalence or incidence reported
- Czaja A J. Autoimmune liver disease. *Curr Opin Gastroenterol* 2003;19(3):232-242. No prevalence or incidence reported
- Dahan S, Slater P E, Cooper M et al. Coeliac disease in the Rehovot-Ashdod region of Israel: incidence and ethnic distribution. *J Epidemiol Community Health* 1984;38(1):58-60. Not a relevant screening geography
- Dahele A V, Aldhous M C, Humphreys K et al. Serum IgA tissue transglutaminase antibodies in coeliac disease and other gastrointestinal diseases. *Qjm - Monthly Journal of the Association of Physicians* 2001;94(4):195-205. No prevalence or incidence reported
- Dahele A, Ghosh S. Vitamin B12 deficiency in untreated celiac disease. *Am J Gastroenterol* 2001;96(3):745-750. No prevalence or incidence reported
- Dahele A, Kingstone K, Bode J et al. Anti-endomysial antibody negative celiac disease: does additional serological testing help?. *Dig Dis Sci* 2001;46(1):214-221. No prevalence or incidence reported
- Dahlqvist G. Celiac disease and insulin-dependent diabetes mellitus--no proof for a causal association. *Acta Paediatr* 1995;84(12):1337-1338. No prevalence or incidence reported
- Damen G M, Boersma B, Wit J M et al. Catch-up growth in 60 children with celiac disease. *J Pediatr Gastroenterol Nutr* 1994;19(4):394-400. No prevalence or incidence reported
- Damoiseaux Jan G M C, Bouten Bas, Linders Annick M L W et al. Diagnostic value of anti-Saccharomyces cerevisiae and antineutrophil cytoplasmic antibodies for inflammatory bowel disease: high prevalence in patients with celiac disease. *J Clin Immunol* 2002;22(5):281-288. No prevalence or incidence reported
- Danne T. Current issues in paediatric diabetology: Introduction to meet-the-expert sessions. *Horm Res* 2002;57(Suppl 1):91-92. No prevalence or incidence reported
- Dausset J. Biologic role of the HLA system. HLA complex in human biology in the light of associations with disease. *Transplant Proc* 1977;9(1):523-529. No prevalence or incidence reported
- David T J, Ajdukiewicz A B. A family study of coeliac disease. *J Med Genet* 1975;12(1):79-82. Serology screen <1990
- Davis M K. Breastfeeding and chronic disease in childhood and adolescence. *Pediatr Clin North Am*

- 2001;48(1):125-41, Ix. No prevalence or incidence reported
- Davison S. Coeliac disease and liver dysfunction. *Arch Dis Child* 2002;87(4):293-296. No prevalence or incidence reported
- Dawood F H, Jabbar A A, Al Mudaris A F et al. Association of HLA antigens with coeliac disease among Iraqi children. *Tissue Antigens* 1981;18(1):35-39. No prevalence or incidence reported
- Dawson A M. Nutritional disturbances in Crohn's disease. *Br J Surg* 1972;59(10):817-819. No prevalence or incidence reported
- Dawson A M. Nutritional disturbances in Crohn's disease. *Proc R Soc Med* 1971;64(2):166-170. No prevalence or incidence reported
- de Francischi M L, Salgado J M, da Costa C P. Immunological analysis of serum for buckwheat fed celiac patients. *Plant Foods Hum Nutr* 1994;46(3):207-211. No prevalence or incidence reported
- de Freitas I, Sipahi Aytan, Miranda Damiao et al. Celiac disease in Brazilian adults. *J Clin Gastroenterol* 2002;34(4):430-434. No prevalence or incidence reported
- De Giacomo C, Gianatti A, Negrini R et al. Lymphocytic gastritis: a positive relationship with celiac disease. *Eur J Pediatr* 1994;124(1):57-62. No prevalence or incidence reported
- de la, Concha E G, Fernandez-Arquero M et al. Celiac disease and TNF promoter polymorphisms. *Hum Immunol* 2000;61(5):513-517. No prevalence or incidence reported
- de la, Paz Bettinotti M, Kolek A et al. Polymorphism of the 5' flanking region of the HLA-DQA1 gene in coeliac disease. *European Journal of Immunogenetics - Official Journal of the British Society for Histocompatibility and Immunogenetics* 1993;20(5):399-407. No prevalence or incidence reported
- de Lecea A, Ribes-Koninckx C, Polanco I et al. Serological screening (anti-gliadin and anti-endomysium antibodies) for non-overt coeliac disease in children of short stature. *Acta Paediatr* 1996;412(Suppl):54-55. No prevalence or incidence reported
- de Vizia B, Poggi V, Conenna R et al. Iron absorption and iron deficiency in infants and children with gastrointestinal diseases. *J Pediatr Gastroenterol Nutr* 1992;14(1):21-26. No prevalence or incidence reported
- Dean G, Hanniffy L, Stevens F et al. Schizophrenia and coeliac disease. *Ir Med J* 1975;68(21):545-546. No prevalence or incidence reported
- Del Rosario M A, Fitzgerald J F, Chong S K et al. Further studies of anti-endomysium and anti-gliadin antibodies in patients with suspected celiac disease. *J Pediatr Gastroenterol Nutr* 1998;27(2):191-195. No prevalence or incidence reported
- Delco F, El Serag H B, Sonnenberg A. Celiac sprue among US military veterans: associated disorders and clinical manifestations. *Dig Dis Sci* 1999;44(5):966-972. No prevalence or incidence reported
- DeMarchi M, Borelli I, Olivetti E et al. Two HLA-D and DR alleles are associated with coeliac disease. *Tissue Antigens* 1979;14(4):309-316. No prevalence or incidence reported
- DeMarchi M, Carbonara A, Ansaldo N et al. HLA-DR3 and DR7 in coeliac disease: immunogenetic and clinical aspects. *Gut* 1983;24(8):706-712. No prevalence or incidence reported
- Demir H, Yuce A, Kocak N et al. Celiac disease in Turkish children: presentation of 104 cases. *Pediatrics International - Official Journal of the Japan Pediatric Society* 2000;42(5):483-487. No prevalence or incidence reported
- Dennis N R, Stokes C R. Risk of coeliac disease in children of patients and effect of HLA genotype. *J Med Genet* 1978;15(1):20-22. No prevalence or incidence reported
- Deprez Pierre H, Sempoux Christine, De Saeger et al. Expression of cholecystokinin in the duodenum of patients with coeliac disease: respective role of atrophy and lymphocytic infiltration. *Clinical Science (London, England - 1979)* 2002;103(2):171-177. No prevalence or incidence reported
- der Ohe M R. Diarrhoea in patients with diabetes mellitus. *Eur J Gastroenterol Hepatol* 1995;7(8):730-736. No prevalence or incidence reported
- Desjeux Ariadne, Barthelet Marc, Barthelet Sandrine et al. Serum measurements of pancreatitis associated protein in active Crohn's disease with ileal location. *Gastroenterol Clin Biol* 2002;26(1):23-28. No prevalence or incidence reported
- Devi Rampertab S, Fleischauer A, Neugut A I et al. Risk of duodenal adenoma in celiac disease. *Scand J Gastroenterol* 2003;38(8):831-833. No prevalence or incidence reported
- Dewar D, Pereira S P, Ciclitira P J. The pathogenesis of coeliac disease. *Int J Biochem Cell Biol* 2004;36(1):17-24. No prevalence or incidence reported

Dezi R, Niveloni S, Sugai E et al. Gluten sensitivity in the rectal mucosa of first-degree relatives of celiac disease patients. *Am J Gastroenterol* 1997;92(8):1326-1330. No prevalence or incidence reported

Dhesi I, Marsh M N, Kelly C et al. Morphometric analysis of small intestinal mucosa. II. Determination of lamina propria volumes; plasma cell and neutrophil populations within control and coeliac disease mucosae. *Virchows Archiv.A, Pathological Anatomy and Histopathology* 1984;403(2):173-180. No prevalence or incidence reported

Di Mario U, Anastasi E, Mariani P et al. Diabetes-related autoantibodies do appear in children with coeliac disease. *Acta Paediatr* 1992;81(8):593-597. No prevalence or incidence reported

Di Sabatino A, Brandi E, Casadei Maldini M et al. Phenotyping of peripheral blood lymphocytes in adult coeliac disease. *Immunology* 1998;95(4):572-576. No prevalence or incidence reported

Di Sabatino A, Ciccocioppo R, D'Alo S et al. Intraepithelial and lamina propria lymphocytes show distinct patterns of apoptosis whereas both populations are active in Fas based cytotoxicity in coeliac disease. *Gut* 2001;49(3):380-386. No prevalence or incidence reported

Di Stefano M, Jorizzo R A, Veneto G et al. Bone mass and metabolism in dermatitis herpetiformis. *Dig Dis Sci* 1999;44(10):2139-2143. No prevalence or incidence reported

Di Stefano M, Veneto G, Corrao G et al. Role of lifestyle factors in the pathogenesis of osteopenia in adult coeliac disease: a multivariate analysis. *Eur J Gastroenterol Hepatol* 2000;12(11):1195-1199. No prevalence or incidence reported

Di Stefano, Michele Miceli, Emanuela Malservisi et al. Mixing of the intestinal content and variations of fermentation capacity do not affect the results of hydrogen breath test. *Am J Gastroenterol* 2003;98(7):1584-1587. No prevalence or incidence reported

Diamanti A, Maino C, Niveloni S et al. Characterization of gastric mucosal lesions in patients with celiac disease: a prospective controlled study. *Am J Gastroenterol* 1999;94(5):1313-1319. No prevalence or incidence reported

Dickey W, Bodkin S. Prospective study of body mass index in patients with coeliac disease. *BMJ* 1998;317(7168):1290. No prevalence or incidence reported

Dickey W, Hughes D F, McMillan S A. Disappearance of endomysial antibodies in treated celiac disease does not indicate histological recovery. *Am J Gastroenterol* 2000;95(3):712-714. No prevalence or incidence reported

Dickey W, Hughes D F, McMillan S A. Reliance on serum endomysial antibody testing underestimates the true prevalence of coeliac disease by one fifth. *Scand J Gastroenterol* 2000;35(2):181-183. No prevalence or incidence reported

Dickey W, Hughes D. Disappointing sensitivity of endoscopic markers for villous atrophy in a high-risk population: implications for celiac disease diagnosis during routine endoscopy. *Am J Gastroenterol* 2001;96(7):2126-2128. No prevalence or incidence reported

Dickey W, Hughes D. Prevalence of celiac disease and its endoscopic markers among patients having routine upper gastrointestinal endoscopy. *Am J Gastroenterol* 1999;94(8):2182-2186. No prevalence or incidence reported

Dickey W, McConnell J B. How many hospital visits does it take before celiac sprue is diagnosed?. *J Clin Gastroenterol* 1996;23(1):21-23. No prevalence or incidence reported

Dickey W, McMillan S A, Callender M E. High prevalence of celiac sprue among patients with primary biliary cirrhosis. *J Clin Gastroenterol* 1997;25(1):328-329. No prevalence or incidence reported

Dickey W, McMillan S A, Collins J S et al. Liver abnormalities associated with celiac sprue. How common are they, what is their significance, and what do we do about them?. *J Clin Gastroenterol* 1995;20(4):290-292. No prevalence or incidence reported

Dickey W, McMillan S A, Hughes D F. Identification of coeliac disease in primary care. *Scand J Gastroenterol* 1998;33(5):491-493. No prevalence or incidence reported

Dickey W, McMillan S A, Hughes D F. Sensitivity of serum tissue transglutaminase antibodies for endomysial antibody positive and negative coeliac disease. *Scand J Gastroenterol* 2001;36(5):511-514. No prevalence or incidence reported

Dickey W, McMillan S A, McCrum E E et al. Association between serum levels of total IgA and IgA class endomysial and antigliadin antibodies: implications for coeliac disease screening. *Eur J Gastroenterol Hepatol* 1997;9(6):559-562. No prevalence or incidence reported

- Dickey W. Colon neoplasia co-existing with coeliac disease in older patients: coincidental, probably; important, certainly. *Scand J Gastroenterol* 2002;37(9):1054-1056. No prevalence or incidence reported
- Dickey W. Diagnosis of coeliac disease at open-access endoscopy. *Scand J Gastroenterol* 1998;33(6):612-615. No prevalence or incidence reported
- Dickey W. Low serum vitamin B12 is common in coeliac disease and is not due to autoimmune gastritis. *Eur J Gastroenterol Hepatol* 2002;14(4):425-427. No prevalence or incidence reported
- Dieterich W, Ehnis T, Bauer M et al. Identification of tissue transglutaminase as the autoantigen of celiac disease. *Nat Med* 1997;3(7):797-801. No prevalence or incidence reported
- Dissanayake A S, Truelove S C, Whitehead R. Jejunal mucosal recovery in coeliac disease in relation to the degree of adherence to a gluten-free diet. *Q J Med* 1974;43(170):161-185. No prevalence or incidence reported
- Djilali-Saiah I, Benini V, Schmitz J et al. Absence of primary association between DM gene polymorphism and insulin-dependent diabetes mellitus or celiac disease. *Hum Immunol* 1996;49(1):22-27. No prevalence or incidence reported
- Djilali-Saiah I, Caillat-Zucman S, Schmitz J et al. Polymorphism of antigen processing (TAP, LMP) and HLA class II genes in celiac disease. *Hum Immunol* 1994;40(1):8-16. No prevalence or incidence reported
- Djilali-Saiah I, Schmitz J, Harfouch-Hammoud E et al. CTLA-4 gene polymorphism is associated with predisposition to coeliac disease. *Gut* 1998;43(2):187-189. No prevalence or incidence reported
- Dobru D, Pascu O, Tant cedil et al. The prevalence of coeliac disease at endoscopy units in Romania: Routine biopsies during gastroscopy are mandatory (A multicentre study). *Rom J Gastroenterol* 2003;12(2):97-100. Not a relevant screening geography
- Dohan F C, Harper E H, Clark M H et al. Is schizophrenia rare if grain is rare?. *Biol Psychiatry* 1984;19(3):385-399. No prevalence or incidence reported
- Dohan F C. Cereals and schizophrenia data and hypothesis. *Acta Psychiatr Scand* 1966;42(2):125-152. No prevalence or incidence reported
- Dohan F C. The possible pathogenic effect of cereal grains in schizophrenia. Celiac disease as a model. *Acta Neurol (Napoli)* 1976;31(2):195-205. No prevalence or incidence reported
- Driessen A, Ectors N. Lymphomas of the gastro-intestinal tract: Uncommon types: LYMPHOMES DU TRACTUS GASTRO-INTESTINAL: TYPES RARES. *Acta Endoscopica* 2003;33(3):327-345. No prevalence or incidence reported
- Drury M I, Keelan D M, Timoney F J et al. Juvenile familial endocrinopathy. *Clin Exp Immunol* 1970;7(1):125-132. No prevalence or incidence reported
- Dugoujon J M, Cambon-Thomsen A. Immunoglobulin allotypes (GM and KM) and their interactions with HLA antigens in autoimmune diseases: A review. *Autoimmunity* 1995;22(4):245-260. No prevalence or incidence reported
- Dugoujon J M, Guitard E, Senegas M T. Gm and Km allotypes in autoimmune diseases. *G Ital Cardiol* 1992;22(1):85-95. No prevalence or incidence reported
- Duncan A, Park R P, Lee F D et al. A retrospective assessment of the clinical value of jejunal disaccharidase analysis. *Scand J Gastroenterol* 1994;29(12):1111-1116. No prevalence or incidence reported
- Dunger David, Ahmed Lynn, Ong Ken. Growth and body composition in type 1 diabetes mellitus. *Horm Res* 2002;58(Suppl 1):66-71. No prevalence or incidence reported
- Dyer N H, Rutherford C, Visick J H et al. The incidence and reliability of individual radiographic signs in the small intestine in Crohn's disease. *Br J Radiol* 1970;43(510):401-408. No prevalence or incidence reported
- Eastell Richard. Management of osteoporosis due to ovarian failure. *Med Pediatr Oncol* 2003;41(3):222-227. No prevalence or incidence reported
- Ebisawa M, Ikematsu K, Imai T et al. Food Allergy in Japan. *Allergy Clin Immunol Int* 2003;15(5):214-217. No prevalence or incidence reported
- Ebo D G, Stevens W J. IgE-mediated food allergy - Extensive review of the literature. *Acta Clin Belg* 2001;56(4):234-247. No prevalence or incidence reported
- Ectors N. Infectious disorders of the duodenum: MALADIES INFECTIEUSES DU DUODENUM. *Acta Endoscopica* 2002;32(2):133-156. No prevalence or incidence reported
- Egan C A, O'Loughlin S, Gormally S et al. Dermatitis Herpetiformis: a review of fifty-four patients. *Ir J Med Sci* 1997;166(4):241-244. No prevalence or incidence reported

Egan L J, Walsh S V, Stevens F M et al. Celiac-associated lymphoma. A single institution experience of 30 cases in the combination chemotherapy era. *J Clin Gastroenterol* 1995;21(2):123-129. No prevalence or incidence reported

Ehrlich R M. Diabetes mellitus in childhood. *Pediatr Clin North Am* 1974;21(4):871-884. No prevalence or incidence reported

Eichler I, Frisch H, Granditsch G. Growth failure and insulin-like growth factor (IGF-I) in childhood celiac disease. *Klin Wochenschr* 1991;69(18):825-829. No prevalence or incidence reported

Eiermann T H, Vejbaesya S, Prestel H et al. Association and linkage of human leukocyte antigens with psoriasis - Revisited. *Infusther Transfusionsmed* 2002;29(6):326-330. No prevalence or incidence reported

Eigenmann P A, Calza A-M. Diagnosis of IgE-mediated food allergy among Swiss children with atopic dermatitis. *Pediatr Allergy Immunol* 2000;11(2):95-100. No prevalence or incidence reported

Eigenmann P A, Sampson H A. Interpreting skin prick tests in the evaluation of food allergy in children. *Pediatric Allergy and Immunology - Official Publication of the European Society of Pediatric Allergy and Immunology* 1998;9(4):186-191. No prevalence or incidence reported

Eigenmann P A, Sicherer S H, Borkowski T A et al. Prevalence of IgE-mediated food allergy among children with atopic dermatitis. *Pediatrics* 1998;101(3):E8 No prevalence or incidence reported

Ek B. On the familiar incidence of idiopathic sprue and the significance of pregnancy and partial gastrectomy for the manifestation of the symptoms. Preliminary report. *Acta Med Scand* 1967;181(1):125-126. No prevalence or incidence reported

Ek B. Studies on idiopathic non-tropical sprue. The familial occurrence of sprue. Relationship between sprue and megaloblastic anaemia of pregnancy and puerperium. The significance of partial gastrectomy for manifestation of symptoms. *Acta Med Scand* 1970;508(Suppl):1-72. No prevalence or incidence reported

Ekbom A, Adami H-O. The epidemiology of inflammatory bowel disease. *Curr Opin Gastroenterol* 1991;7(4):649-653. No prevalence or incidence reported

El Salhy M, Suhr O, Danielsson A. Peptide YY in gastrointestinal disorders. *Peptides* 2002;23(2):397-402. No prevalence or incidence reported

Eliakim R, Sherer D M. Celiac disease: fertility and pregnancy. *Gynecol Obstet Invest* 2001;51(1):3-7. No prevalence or incidence reported

Ellis A, Taylor C J, Dillon-Remmy M et al. HLA-DR typing in coeliac disease: evidence for genetic heterogeneity. *Br Med J (Clin Res Ed)* 1984;289(6458):1571-1573. No prevalence or incidence reported

Ellis A. The genetic epidemiology of coeliac disease. *Genet Epidemiol* 1986;1(Suppl):267-269. No prevalence or incidence reported

Ellman L K, Chatchatee P, Sicherer S H et al. Food hypersensitivity in two groups of children and young adults with atopic dermatitis evaluated a decade apart. *Pediatr Allergy Immunol* 2002;13(4):295-298. No prevalence or incidence reported

Elmes M E, Jones J G, Stanton M R. Changes in the Paneth cell population of human small intestine assessed by image analysis of the secretory granule area. *J Clin Pathol* 1983;36(8):867-872. No prevalence or incidence reported

Elsborg L, Mosbech J. Sprue: a follow-up study of an old series. *Dan Med Bull* 1978;25(5):205-206. No prevalence or incidence reported

Endres W, Wuttge B. Occurrence of secondary cystathioninuria in children with inherited metabolic disorders, liver diseases, neoplasms, cystic fibrosis and celiac disease. *Eur J Pediatr* 1978;129(1):29-35. No prevalence or incidence reported

Engstrom J, Hellstrom K, Lundh G et al. Microflora of small intestine, incidence of steatorrhoea and indicanuria before and after conversion of billroth II to billroth I type of gastric resection. *Acta Chir Scand* 1973;139(6):546-550. No prevalence or incidence reported

Engstrom J, Hellstrom K. Microflora of the small intestine and the incidence of liver disease, steatorrhoea, and indicanuria in patients subjected to partial gastrectomy. *Acta Chir Scand* 1973;139(6):539-545. No prevalence or incidence reported

Ensari A, Marsh M N, Loft D E et al. Morphometric analysis of intestinal mucosa. V. Quantitative histological and immunocytochemical studies of rectal mucosae in gluten sensitivity. *Gut* 1993;34(9):1225-1229. No prevalence or incidence reported

Ensari A, Marsh M N, Morgan S et al. Diagnosing coeliac disease by rectal gluten challenge: a prospective study based on immunopathology, computerized image analysis and logistic regression analysis. *Clinical Science (London, England - 1979)*

- 2001;101(2):199-207. No prevalence or incidence reported
- Erkan T, Kutlu T, Yilmaz E et al. Human leukocyte antigens in Turkish pediatric celiac patients. *Turk J Pediatr* 1999;41(2):181-188. No prevalence or incidence reported
- Evans W B, Wollaeger E E. Incidence and severity of nutritional deficiency states in chronic exocrine pancreatic insufficiency: comparison with nontropical sprue. *Am J Dig Dis* 1966;11(8):594-606. No prevalence or incidence reported
- Everts B, Stotzer P, Olsson M et al. Increased luminal nitric oxide concentrations in the small intestine of patients with coeliac disease. *Eur J Clin Invest* 1999;29(8):692-696. No prevalence or incidence reported
- Exner G U, Sacher M, Shmerling D H et al. Growth retardation and bone mineral status in children with coeliac disease recognized after the age of 3 years. *Helv Paediatr Acta* 1978;33(6):497-507. No prevalence or incidence reported
- Eysink P E D, Bindels P J E, Stapel S O et al. Do levels of immunoglobulin G antibodies to foods predict the development of immunoglobulin E antibodies to cat, dog and/or mite?. *Clin Exp Allergy* 2002;32(4):556-562. No prevalence or incidence reported
- Eysink P E, De Jong M H, Bindels P J et al. Relation between IgG antibodies to foods and IgE antibodies to milk, egg, cat, dog and/or mite in a cross-sectional study. *Clinical and Experimental Allergy - Journal of the British Society for Allergy and Clinical Immunology* 1999;29(5):604-610. No prevalence or incidence reported
- Fabiani E, Catassi C, Villari A et al. Dietary compliance in screening-detected coeliac disease adolescents. *Acta Paediatr* 1996;412(Suppl):65-67. No prevalence or incidence reported
- Fabiani E, Taccari L M, Ratsch I M et al. Compliance with gluten-free diet in adolescents with screening-detected celiac disease: a 5-year follow-up study. *Eur J Pediatr* 2000;136(6):841-843. No prevalence or incidence reported
- Failla P, Ruberto C, Pagano M C et al. Celiac disease in Down Syndrome with HLA serological and molecular studies. *J Pediatr Gastroenterol Nutr* 1996;23(3):303-306. No prevalence or incidence reported
- Fakhri Z I. Causes of hypersensitivity reactions in flour mill workers in Sudan. *Occup Med* 1992;42(3):149-154. No prevalence or incidence reported
- Falchuk Z M, Katz A J, Shwachman H et al. Gluten-sensitive enteropathy: genetic analysis and organ culture study in 35 families. *Scand J Gastroenterol* 1978;13(7):839-843. No prevalence or incidence reported
- Falk M C, NG G, Zhang G Y et al. Predominance of T cell receptor V delta 3 in small bowel biopsies from coeliac disease patients. *Clin Exp Immunol* 1994;98(1):78-82. No prevalence or incidence reported
- Faloon W W, Flood M S, Aroesty S et al. Assessment of jejunioileostomy for obesity--some observations since 1976. *Am J Clin Nutr* 1980;33(2 Suppl):431-439. No prevalence or incidence reported
- Falth-Magnusson K, Franzen L, Jansson G et al. Infant feeding history shows distinct differences between Swedish celiac and reference children. *Pediatric Allergy and Immunology - Official Publication of the European Society of Pediatric Allergy and Immunology* 1996;7(1):1-5. No prevalence or incidence reported
- Falzon L. Topic: Gluten-free diet of coeliac disease. *J Clin Excellence* 2001;3(4):209-211. No prevalence or incidence reported
- Farre C, Esteve M, Curcoy A et al. Hypertransaminasemia in pediatric celiac disease patients and its prevalence as a diagnostic clue. *Am J Gastroenterol* 2002;97(12):3176-3181. No prevalence or incidence reported
- Farrell R J, Kelly C P. Diagnosis of celiac sprue. *Am J Gastroenterol* 2001;96(12):3237-3246. Review article
- Farrell Richard J, Kelly Ciaran P. Celiac sprue. *N Engl J Med* 2002;346(3):180-188. No prevalence or incidence reported
- Fasano A, Catassi C. Current approaches to diagnosis and treatment of celiac disease: an evolving spectrum. *Gastroenterology* 2001;120(3):636-651. No prevalence or incidence reported
- Fasano A. European and North American populations should be screened for coeliac disease. *Gut* 2003;52(2):168-169. No prevalence or incidence reported
- Fasano A. Where have all the American celiacs gone?. *Acta Paediatr* 1996;412(Suppl):20-24. No prevalence or incidence reported
- Fasano Alessio. Celiac disease--how to handle a clinical chameleon. *N Engl J Med* 2003;348(25):2568-2570. No prevalence or incidence reported

- Fdez-Morera J L, Rodrigo L, Lopez-Vazquez A et al. MHC class I chain-related gene a transmembrane polymorphism modulates the extension of ulcerative colitis. *Hum Immunol* 2003;64(8):816-822. No prevalence or incidence reported
- Fedrick J A, Pandey J P, Verkasalo M et al. Immunoglobulin allotypes and the immune response to wheat gliadin in a Finnish population with celiac disease. *Exp Clin Immunogenet* 1985;2(4):185-190. No prevalence or incidence reported
- Feighery C. Coeliac disease. *Br Med J* 1999;319(7204):236-239. No prevalence or incidence reported
- Feltkamp T E, Aarden L A, Lucas C J et al. Genetic risk factors for autoimmune diseases. *Immunol Today* 1999;20(1):10-12. No prevalence or incidence reported
- Ferfoglía G, Pulitano R, Sategna-Guidetti C. Do dietary antibodies still play a role in the diagnosis and follow-up of coeliac disease? A comparison among different serological tests. *Panminerva Med* 1995;37(2):55-59. No prevalence or incidence reported
- Ferguson A, Denton-Miller P, Lai C L. Coeliac disease--objectives of life-long follow-up. *Health Bull (Edinb)* 1977;35(2):78-80. No prevalence or incidence reported
- Ferguson A, Hutton M M, Maxwell J D et al. Adult coeliac disease in hyposplenic patients. *Lancet* 1970;1(7639):163-164. No prevalence or incidence reported
- Ferguson A, Kingstone K. Coeliac disease and malignancies. *Acta Paediatr* 1996;412(Suppl):78-81. No prevalence or incidence reported
- Ferguson A, Ziegler K, Strobel S. Gluten intolerance (coeliac disease). *Ann Allergy* 1984;53(6 Pt 2):637-642. No prevalence or incidence reported
- Ferguson A. Celiac disease, an eminently treatable condition, may be underdiagnosed in the United States. *Am J Gastroenterol* 1997;92(8):1252-1254. Review article
- Ferguson A. Coeliac disease (gluten hypersensitivity). *J Hum Nutr* 1976;30(3):193-201. No prevalence or incidence reported
- Ferguson A. Coeliac disease. *Prescr J* 1997;37(4):206-212. No prevalence or incidence reported
- Ferguson A. Immunological functions of the gut in relation to nutritional state and mode of delivery of nutrients. *Gut* 1994;35(1 Suppl):S10-S12. No prevalence or incidence reported
- Fernandez L, Fernandez-Arquero M, Gual L et al. Triplet repeat polymorphism in the transmembrane region of the MICA gene in celiac disease. *Tissue Antigens* 2002;59(3):219-222. No prevalence or incidence reported
- Fernandez N, Hitman G A, Festenstein H et al. Novel HLA class II-associated structural patterns in coeliac disease and type I diabetes. *Clin Exp Immunol* 1988;72(3):362-366. No prevalence or incidence reported
- Fernandez-Arquero M, Caldes T, Casado E et al. Polymorphism within the HLA-DQB1\*02 promoter associated with susceptibility to coeliac disease. *European Journal of Immunogenetics - Official Journal of the British Society for Histocompatibility and Immunogenetics* 1998;25(1):1-3. No prevalence or incidence reported
- Fernandez-Arquero M, Figueredo M A, Maluenda C et al. HLA-linked genes acting as additive susceptibility factors in celiac disease. *Hum Immunol* 1995;42(4):295-300. No prevalence or incidence reported
- Fernandez-Arquero M, Polanco I, Escobar H et al. HLA-DQ alleles and susceptibility to celiac disease in Spanish children. *Tissue Antigens* 1995;45(2):145-147. No prevalence or incidence reported
- Ferrante P, Petronzelli F, Mariani P et al. Oligotyping of Italian celiac patients with the 11th International Histocompatibility Workshop reagents. *Tissue Antigens* 1992;39(1):38-39. No prevalence or incidence reported
- Festenstein H, Nyulassy S. Workshop on HLA and disease. *Transplant Proc* 1979;11(1):1183-1185. No prevalence or incidence reported
- Fickling W E, McFarlane X A, Bhalla A K et al. The clinical impact of metabolic bone disease in coeliac disease. *Postgrad Med J* 2001;77(903):33-36. No prevalence or incidence reported
- Fine K D, Do K, Schulte K et al. High prevalence of celiac sprue-like HLA-DQ genes and enteropathy in patients with the microscopic colitis syndrome. *Am J Gastroenterol* 2000;95(8):1974-1982. Not a relevant screening group
- Fine K D, Lee E L, Meyer R L. Colonic histopathology in untreated celiac sprue or refractory sprue: is it lymphocytic colitis or colonic lymphocytosis?. *Hum Pathol* 1998;29(12):1433-1440. No prevalence or incidence reported
- Fine K D, Meyer R L, Lee E L. The prevalence and causes of chronic diarrhea in patients with celiac sprue treated with a gluten-free diet. *Gastroenterology*

- 1997;112(6):1830-1838. No prevalence or incidence reported
- Fine K D, Ogunji F, Saloum Y et al. Celiac sprue: another autoimmune syndrome associated with hepatitis C. *Am J Gastroenterol* 2001;96(1):138-145. No prevalence or incidence reported
- Fine K D. The prevalence of occult gastrointestinal bleeding in celiac sprue. *N Engl J Med* 1996;334(18):1163-1167. No prevalence or incidence reported
- Finkel M, Gelb A M, Cohen N et al. Long-term follow-up study in idiopathic steatorrhea. *Am J Gastroenterol* 1967;47(1):35-40. No prevalence or incidence reported
- Fischer G F, Mayr W R. Molecular genetics of the HLA complex. *Wien Klin Wochenschr* 2001;113(20-21):814-824. No prevalence or incidence reported
- Flanders G, Graves P, Rewers M. Prevention of type 1 diabetes from laboratory to public health. *Autoimmunity* 1999;29(3):235-246. No prevalence or incidence reported
- Fleming A F. Iron deficiency in the tropics. *Clin Haematol* 1982;11(2):365-388. No prevalence or incidence reported
- Floreani A, Betterle C, Baragiotta A et al. Prevalence of coeliac disease in primary biliary cirrhosis and of antimitochondrial antibodies in adult coeliac disease patients in Italy. *Digestive and Liver Disease - Official Journal of the Italian Society of Gastroenterology and the Italian Association for the Study of the Liver* 2002;34(4):258-261. No prevalence or incidence reported
- Fogg Matthew I, Spergel Jonathan M. Management of food allergies. *Expert Opin Pharmacother* 2003;4(7):1025-1037. No prevalence or incidence reported
- Foldes-Papp Zeno, Demel Ulrike, Berry Desiree et al. Tissue transglutaminase antibody determination in celiac disease. Analysis of diagnostic specificity of anti-human IgA-type assays. *J Immunoassay Immunochem* 2002;23(2):211-227. No prevalence or incidence reported
- Fotoulaki M, Nousia-Arvanitakis S, Augoustidou-Savvopoulou P et al. Clinical application of immunological markers as monitoring tests in celiac disease. *Dig Dis Sci* 1999;44(10):2133-2138. No prevalence or incidence reported
- Fox L A. Diabetes therapy in children: Setting age-appropriate goals. *Drug Benefit Trends* 2002;14(Suppl D):30-35+44. No prevalence or incidence reported
- Francis James, Carty John E, Scott Brian B. The prevalence of coeliac disease in rheumatoid arthritis. *Eur J Gastroenterol Hepatol* 2002;14(12):1355-1356. No prevalence or incidence reported
- Frank L, Marian A, Visser M et al. Exposure to peanuts in utero and in infancy and the development of sensitization to peanut allergens in young children. *Pediatr Allergy Immunol* 1999;10(1):27-32. No prevalence or incidence reported
- Franklin J L, Asquith P, Rosenberg I H. The occurrence of cystic fibrosis and celiac sprue within a single sibship. *Am J Dig Dis* 1974;19(2):149-155. No prevalence or incidence reported
- Fraser J S, Ciclitira P J. Pathogenesis of coeliac disease: Implications for treatment. *World J Gastroenterol* 2001;7(6):772-776. No prevalence or incidence reported
- Fraser J S, Woodhouse N J, El Shafie O T et al. Occult celiac disease in adult Omanis with unexplained iron deficiency anemia. *Saudi Med J* 2003;24(7):791 No prevalence or incidence reported
- Fraser N G, Ferguson A, Murray D. Dermatitis herpetiformis in two patients with idiopathic steatorrhea (adult coeliac disease). *Br Med J* 1968;3(622):30-31. No prevalence or incidence reported
- Freeman H J. Biopsy-defined adult celiac disease in Asian-Canadians. *Can J Gastroenterol* 2003;17(7):433-436. No prevalence or incidence reported
- Freeman H J. Failure of added dietary gluten to induce small intestinal histopathological changes in patients with watery diarrhea and lymphocytic colitis. *Can J Gastroenterol* 1996;10(7):436-439. No prevalence or incidence reported
- Freeman H J. Free perforation due to intestinal lymphoma in biopsy-defined or suspected celiac disease. *J Clin Gastroenterol* 2003;37(4):299-302. No prevalence or incidence reported
- Freeman H J. Hepatobiliary tract and pancreatic disorders in celiac disease. *Can J Gastroenterol* 1997;11(1):77-81. No prevalence or incidence reported
- Freeman H J. Neoplastic disorders in 100 patients with adult celiac disease. *Can J Gastroenterol* 1996;10(3):163-166. No prevalence or incidence reported
- Freeman H J. Solid-phase ELISA for tissue transglutaminase, an endomysial target for possible serological diagnosis of celiac disease. *Can J*

- Gastroenterol 1998;12(5):323-324. No prevalence or incidence reported
- Freeman H J. Survey of gastroenterologists on the diagnosis and treatment of adult patients with celiac disease in British Columbia. *Can J Gastroenterol* 1998;12(2):149-152. No prevalence or incidence reported
- Freemark M, Levitsky L L. Screening for celiac disease in children with type 1 diabetes: Two views of the controversy. *Diabetes Care* 2003;26(6):1932-1939. No prevalence or incidence reported
- Freier S. Paediatric gastrointestinal allergy. *Clin Allergy* 1973;3(Suppl):597-618. No prevalence or incidence reported
- Frezal J, Rey J. Genetics of disorders of intestinal digestion and absorption. *Adv Hum Genet* 1970;12:75-336. No prevalence or incidence reported
- Fric P, Lojda Z, Jodl J et al. Analysis of peroral jejunal biopsies in clinically asymptomatic parents of children with celiac sprue. *Digestion* 1969;2(1):35-42. Not a relevant screening geography
- Fried M W. Side effects of therapy of hepatitis C and their management. *J Gastroenterol Hepatol* 2002;36(5 D):S237-S244. No prevalence or incidence reported
- Friis S U, Gudmand-Hoyer E. Screening for coeliac disease in adults by simultaneous determination of IgA and IgG gliadin antibodies. *Scand J Gastroenterol* 1986;21(9):1058-1062. No prevalence or incidence reported
- Frisoni G B, Carabellese N, Longhi M et al. Is celiac disease associated with Alzheimer's disease?. *Acta Neurol Scand* 1997;95(3):147-151. No prevalence or incidence reported
- Frustaci Andrea, Cuoco Lucio, Chimenti Cristina et al. Celiac disease associated with autoimmune myocarditis. *Circulation* 2002;105(22):2611-2618. No prevalence or incidence reported
- Fry L, Seah P P, Hoffbrand A V. Dermatitis herpetiformis. *Clin Gastroenterol* 1974;3(1):145-157. No prevalence or incidence reported
- Fry L, Seah P P, Riches D J et al. Clearance of skin lesions in dermatitis herpetiformis after gluten withdrawal. *Lancet* 1973;1(7798):288-291. No prevalence or incidence reported
- Fry L. Dermatitis herpetiformis. *Bailliere's Clin Gastroenterol* 1995;9(2):371-393. No prevalence or incidence reported
- Fry Lionel. Dermatitis herpetiformis: problems, progress and prospects. *European Journal of Dermatology - Ejd* 2002;12(6):523-531. No prevalence or incidence reported
- Fundia A F, Gonzalez Cid M B, Bai J et al. Chromosome instability in lymphocytes from patients with celiac disease. *Clin Genet* 1994;45(2):57-61. No prevalence or incidence reported
- Fundia A, Gomez J C, Maurino E et al. Chromosome instability in untreated adult celiac disease patients. *Acta Paediatr* 1996;412(Suppl):82-84. No prevalence or incidence reported
- Gabrielli Maurizio, Cremonini Filippo, Fiore Giuseppe et al. Association between migraine and Celiac disease: results from a preliminary case-control and therapeutic study. *Am J Gastroenterol* 2003;98(3):625-629. No prevalence or incidence reported
- Gale J, Simmonds P D, Mead G M et al. Enteropathy-type intestinal T-cell lymphoma: clinical features and treatment of 31 patients in a single center. *Journal of Clinical Oncology - Official Journal of the American Society of Clinical Oncology* 2000;18(4):795-803. No prevalence or incidence reported
- Gale L, Wimalaratna H, Brotodiharjo A et al. Down Syndrome is strongly associated with coeliac disease. *Gut* 1997;40(4):492-496. Not a relevant screening group
- Galli-Tsinopoulou A, Nousia-Arvanitakis S, Dracoulacos D et al. Autoantibodies predicting diabetes mellitus type I in celiac disease. *Horm Res* 1999;52(3):119-124. No prevalence or incidence reported
- Gandolfi L, Pratesi R, Cordoba J C et al. Prevalence of celiac disease among blood donors in Brazil. *Am J Gastroenterol* 2000;95(3):689-692. Not a relevant screening geography
- Gans R O B, Ueda Y, Ito S et al. The occurrence of IgA-nephropathy in patients with diabetes mellitus may not be coincidental: A report of five cases. *Am J Kidney Dis* 1992;20(3):255-260. No prevalence or incidence reported
- Garces M C, Gomez-Cerezo J, Codoceo R et al. Postprandial cholecystokinin response in patients with chronic pancreatitis in treatment with oral substitutive pancreatic enzymes. *Dig Dis Sci* 1998;43(3):562-566. No prevalence or incidence reported
- Garcia Vilela E, De Lourdes, de Abreu et al. Agreement between pathologists concerning assessment of intestinal biopsies from adult celiac disease patients. *Gastroenterol Int* 2002;15(1-2):1-8. No prevalence or incidence reported

- Gardiner A J, Mutton K J, Walker-Smith J A. A family study of coeliac disease. *Aust Paediatr J* 1973;9(1):18-24. Not a relevant screening geography
- Gardiner A, Porteous N, Walker-Smith J A. The effect of coeliac disease on the mother-child relationship. *Aust Paediatr J* 1972;8(1):39-43. No prevalence or incidence reported
- Garioch J J, Lewis H M, Sargent S A et al. 25 years' experience of a gluten-free diet in the treatment of dermatitis herpetiformis. *Br J Dermatol* 1994;131(4):541-545. No prevalence or incidence reported
- Garioch J J. Dermatitis herpetiformis and its management. *Prescr J* 1996;36(3):141-145. No prevalence or incidence reported
- Garn S M, Poznanski A K, Nagy J M. Bone measurement in the differential diagnosis of osteopenia and osteoporosis. *Radiology* 1971;100(3):509-518. No prevalence or incidence reported
- Garrote J A, Sorell L, Alfonso P et al. A novel visual immunoassay for coeliac disease screening. *Eur J Clin Invest* 1999;29(8):697-699. No prevalence or incidence reported
- Garrote Jose A, Arranz Eduardo, Telleria Juan J et al. TNF alpha and LT alpha gene polymorphisms as additional markers of celiac disease susceptibility in a DQ2-positive population. *Immunogenetics* 2002;54(8):551-555. No prevalence or incidence reported
- Gasbarrini A, Ojetti V, Cuoco L et al. Lack of endoscopic visualization of intestinal villi with the "immersion technique" in overt atrophic celiac disease. *Gastrointest Endosc* 2003;57(3):348-351. No prevalence or incidence reported
- Gasbarrini G, Ciccocioppo R, De Vitis I et al. Coeliac Disease in the Elderly. A multicentre Italian study. *Gerontology* 2001;47(6):306-310. No prevalence or incidence reported
- Gastard J, Joubaud F, Farbos T et al. Etiology and course of primary chronic pancreatitis in Western France. *Digestion* 1973;9(5):416-428. No prevalence or incidence reported
- Gautrin D, Ghezzi H, Infante-Rivard C et al. Incidence and host determinants of work-related rhinoconjunctivitis in apprentice pastry-makers. *Allergy Eur J Allergy Clin Immunol* 2002;57(10):913-918. No prevalence or incidence reported
- Gawkroger D J, Blackwell J N, Gilmour H M et al. Dermatitis herpetiformis: diagnosis, diet and demography. *Gut* 1984;25(2):151-157. No prevalence or incidence reported
- Gay G J, Delmotte J S. Enteroscopy in small intestinal inflammatory diseases. *Gastrointest Endosc Clin N Am* 1999;9(1):115-123. No prevalence or incidence reported
- Gayer G, Apter S, Hofmann C et al. Intussusception in adults: CT diagnosis. *Clin Radiol* 1998;53(1):53-57. No prevalence or incidence reported
- Gazet J C, Pilkington T R, Kalucy R S et al. Treatment of gross obesity by jejunal bypass. *Br Med J* 1974;4(5940):311-314. No prevalence or incidence reported
- Gazit E, Avigad S, Zfat Z et al. The association of HL-A-B8 and childhood celiac disease in an Israeli population. *Isr J Med Sci* 1977;13(4):400-404. No prevalence or incidence reported
- Gebhard R L, Katz S I, Marks J et al. HL-A antigen type and small-intestinal disease in dermatitis herpetiformis. *Lancet* 1973;2(7832):760-762. No prevalence or incidence reported
- Gemme G, Vignolo M, Naselli A et al. Linear growth and skeletal maturation in subjects with treated celiac disease. *J Pediatr Gastroenterol Nutr* 1999;29(3):339-342. No prevalence or incidence reported
- George E K, Hertzberger-ten Cate R, Suijlekom-Smit L W et al. Juvenile chronic arthritis and coeliac disease in The Netherlands. *Clin Exp Rheumatol* 1996;14(5):571-575. No prevalence or incidence reported
- George E K, Jansen T L, Mearin M L et al. Epidemiology of celiac disease in The Netherlands. *J Pediatr Gastroenterol Nutr* 1997;24(5):S7-S9. Not a relevant screening test
- George E K, Mearin M L, Bouquet J et al. High frequency of celiac disease in Down syndrome. *Eur J Pediatr* 1996;128(4):555-557. No prevalence or incidence reported
- George E K, Mearin M L, Bouquet J et al. Screening for coeliac disease in Dutch children with associated diseases. *Acta Paediatr* 1996;412(Suppl):52-53. No prevalence or incidence reported
- George E K, Mearin M L, Franken H C et al. Twenty years of childhood coeliac disease in The Netherlands: a rapidly increasing incidence?. *Gut* 1997;40(1):61-66. Serology screen <1990
- George E K, Mearin M L, van der V et al. Low incidence of childhood celiac disease in The Netherlands. *Pediatr Res* 1995;37(2):213-218. Serology screen <1990

- Gheorghe L, Gheorghe C, Aposteanu G et al. Clinical spectrum of adult celiac disease in a referral center for Southern Romania. Associated disorders and short-term survival. *Rom J Gastroenterol* 1996;5(4):223-228. No prevalence or incidence reported
- Ghezzi A, Zaffaroni M. Neurological manifestations of gastrointestinal disorders, with particular reference to the differential diagnosis of multiple sclerosis. *Neurol Sci* 2002;22(Suppl 2):S117-S122. No prevalence or incidence reported
- Ghosh S K, Littlewood J M, Goddard D et al. Stool microscopy in screening for steatorrhea. *J Clin Pathol* 1977;30(8):749-753. No prevalence or incidence reported
- Giampietro P G, Ragno V, Daniele S et al. Soy hypersensitivity in children with food allergy. *Ann Allergy* 1992;69(2):143-146. No prevalence or incidence reported
- Giannotti A, Tiberio G, Castro M et al. Coeliac disease in Williams syndrome. *J Med Genet* 2001;38(11):767-768. No prevalence or incidence reported
- Giardiello F M, Lazenby A J. The atypical colitides. *Gastroenterol Clin North Am* 1999;28(2):479-490. No prevalence or incidence reported
- Gillett H R, Freeman H J. Prevalence of celiac disease in collagenous and lymphocytic colitis. *Can J Gastroenterol* 2000;14(11):919-921. No prevalence or incidence reported
- Gillett P M, Gillett H R, Israel D M et al. Increased prevalence of celiac disease in girls with Turner syndrome detected using antibodies to endomysium and tissue transglutaminase. *Can J Gastroenterol* 2000;14(11):915-918. No prevalence or incidence reported
- Gill S S, Heuman D M, Mihas A A. Small intestinal neoplasms. *J Clin Gastroenterol* 2001;33(4):267-282. No prevalence or incidence reported
- Gillberg R, Ahren C. Coeliac disease diagnosed by means of duodenoscopy and endoscopic duodenal biopsy. *Scand J Gastroenterol* 1977;12(8):911-916. No prevalence or incidence reported
- Gillet H, Ferguson A, Frier B. Coeliac disease often co-exists with Type 1 diabetes mellitus. *Pract Diabetes Int* 1998;15(4):117-120. No prevalence or incidence reported
- Gillett H R, Cauch-Dudek K, Jenny E et al. Prevalence of IgA antibodies to endomysium and tissue transglutaminase in primary biliary cirrhosis. *Can J Gastroenterol* 2000;14(8):672-675. No prevalence or incidence reported
- Gillett H R, Freeman H J. Comparison of IgA endomysium antibody and IgA tissue transglutaminase antibody in celiac disease. *Can J Gastroenterol* 2000;14(8):668-671. No prevalence or incidence reported
- Gillett H R, Freeman H J. Prevalence of celiac disease in collagenous and lymphocytic colitis. *Can J Gastroenterol* 2000;14(11):919-921. No prevalence or incidence reported
- Gillett H R, Freeman H J. Serological testing in screening for adult celiac disease. *Can J Gastroenterol* 1999;13(3):265-269. No prevalence or incidence reported
- Gillett P M, Gillett H R, Israel D M et al. Increased prevalence of celiac disease in girls with Turner syndrome detected using antibodies to endomysium and tissue transglutaminase. *Can J Gastroenterol* 2000;14(11):915-918. No prevalence or incidence reported
- Ginzberg H, Shin J, Ellis L et al. Shwachman syndrome: phenotypic manifestations of sibling sets and isolated cases in a large patient cohort are similar. *Eur J Pediatr* 1999;135(1):81-88. No prevalence or incidence reported
- Giordano M, Bolognesi E, D'Alfonso S et al. Linkage disequilibrium between intra-locus variants in the aminopeptidase n gene and test of their association with coeliac disease. *Ann Hum Genet* 1999;63(Pt 3):207-215. No prevalence or incidence reported
- Giovagnorio F, Picarelli A, Di Giovambattista F et al. Evaluation with Doppler sonography of mesenteric blood flow in celiac disease. *Ajr. American Journal of Roentgenology* 1998;171(3):629-632. No prevalence or incidence reported
- Giusti Judy. What you should know about celiac disease. *Diabetes Self Manag* 2003;20(1):66, 68-69, 71. No prevalence or incidence reported
- Gobbi G, Bouquet F, Greco L et al. Coeliac disease, epilepsy, and cerebral calcifications. The Italian Working Group on Coeliac Disease and Epilepsy. *Lancet* 1992;340(8817):439-443. No prevalence or incidence reported
- Godkin A, Friede T, Davenport M et al. Use of eluted peptide sequence data to identify the binding characteristics of peptides to the insulin-dependent diabetes susceptibility allele HLA-DQ8 (DQ 3.2). *Int Immunol* 1997;9(6):905-911. No prevalence or incidence reported
- Goggins M, Kelleher D. Celiac disease and other nutrient related injuries to the gastrointestinal tract.

- Am J Gastroenterol 1994;89(8 Suppl):S2-17. No prevalence or incidence reported
- Goldberg D P. A one-year survey of the prevalence of psychiatric illness in patients with disease of the small intestine. Gut 1968;9(6):725. No prevalence or incidence reported
- Goldberg D. A psychiatric study of patients with diseases of the small intestine. Gut 1970;11(6):459-465. No prevalence or incidence reported
- Golden M H. Is complete catch-up possible for stunted malnourished children?. Eur J Clin Nutr 1994;48(Suppl 1):s58-s70; Discussion S71. No prevalence or incidence reported
- Gomez J C, Selvaggio G S, Viola M et al. Prevalence of celiac disease in Argentina: screening of an adult population in the La Plata area. Am J Gastroenterol 2001;96(9):2700-2704. Not a relevant screening geography
- Gomez Juan C, Selvaggio Gisella, Pizarro Bibiana et al. Value of a screening algorithm for celiac disease using tissue transglutaminase antibodies as first level in a population-based study. Am J Gastroenterol 2002;97(11):2785-2790. Not a relevant screening geography
- Gonzalez D, Mazure R, Mautalen C et al. Body composition and bone mineral density in untreated and treated patients with celiac disease. Bone 1995;16(2):231-234. No prevalence or incidence reported
- Goodchild M C, Nelson R, Anderson C M. Cystic fibrosis and coeliac disease: coexistence in two children. Arch Dis Child 1973;48(9):684-691. No prevalence or incidence reported
- Goodwin M S, Goodwin T C. In a dark mirror. Ment Hyg 1969;53(4):550-563. No prevalence or incidence reported
- Gordon N. Cerebellar ataxia and gluten sensitivity: a rare but possible cause of ataxia, even in childhood. Dev Med Child Neurol 2000;42(4):283-286. No prevalence or incidence reported
- Gorski J, Niven M J, Sachs J A et al. HLA-DR alpha, -DX alpha, and DR beta III gene association studies in DR3 individuals. Hum Immunol 1987;20(4):273-278. No prevalence or incidence reported
- Goswami R, Tandon R K, Dudha A et al. Prevalence and significance of steatorrhea in patients with active Graves' disease. Am J Gastroenterol 1998;93(7):1122-1125. No prevalence or incidence reported
- Goulet O, Kedinger M, Brousse N et al. Intractable diarrhea of infancy with epithelial and basement membrane abnormalities. Eur J Pediatr 1995;127(2):212-219. No prevalence or incidence reported
- Gourtsoyiannis N C, Nolan D J. Lymphoma of the small intestine: radiological appearances. Clin Radiol 1988;39(6):639-645. No prevalence or incidence reported
- Granot E, Korman S M, Sallon S et al. "Early" vs. "late" diagnosis of celiac disease in two ethnic groups living in the same geographic area. Isr J Med Sci 1994;30(4):271-275. No prevalence or incidence reported
- Greco L, Auricchio S, Mayer M et al. Case control study on nutritional risk factors in celiac disease. J Pediatr Gastroenterol Nutr 1988;7(3):395-399. No prevalence or incidence reported
- Greco L, Babron M C, Corazza G R et al. Existence of a genetic risk factor on chromosome 5q in Italian coeliac disease families. Ann Hum Genet 2001;65(Pt 1):35-41. No prevalence or incidence reported
- Greco L, Corazza G, Babron M C et al. Genome search in celiac disease. Am J Hum Genet 1998;62(3):669-675. No prevalence or incidence reported
- Greco L, De Seta L, D'Adamo G et al. Atopy and coeliac disease: bias or true relation?. Acta Paediatr Scand 1990;79(6-7):670-674. No prevalence or incidence reported
- Greco L, Mayer M, Ciccarelli G et al. Compliance to a gluten-free diet in adolescents, or "what do 300 coeliac adolescents eat every day?". Ital J Gastroenterol Hepatol 1997;29(4):305-310. No prevalence or incidence reported
- Greco L, Percopo S, Clot F et al. Lack of correlation between genotype and phenotype in celiac disease. J Pediatr Gastroenterol Nutr 1998;26(3):286-290. No prevalence or incidence reported
- Greco L, Percopo S. The coeliac disease task force "Free from Gluten," "Improved knowledge to cure coeliac disease". Acta Paediatr 1996;412(Suppl):25-28. No prevalence or incidence reported
- Greco L, Romino R, Coto I et al. The first large population based twin study of coeliac disease. Gut 2002;50(5):624-628. No prevalence or incidence reported
- Greco L, Tipo V, Di Donato F et al. Pulsatile growth pattern during catch-up growth in childhood coeliac disease. Acta Paediatr 1994;83(7):724-729. No prevalence or incidence reported

- Greco L, Tozzi A E, Mayer M et al. Unchanging clinical picture of coeliac disease presentation in Campania, Italy. *Eur J Pediatr* 1989;148(7):610-613. No prevalence or incidence reported
- Greco L, Troncone R. Coeliac families. *Acta Paediatr* 2002;91(1):16-17. No prevalence or incidence reported
- Green P H R, Jabri B. Celiac disease and other precursors to small-bowel malignancy. *Gastroenterol Clin North Am* 2002;31(2):625-639. No prevalence or incidence reported
- Green P H R, Stavropoulos S N, Panagi S G et al. Characteristics of adult celiac disease in the USA: results of a national survey. *Am J Gastroenterol* 2001;96(1):126-131. No prevalence or incidence reported
- Green Peter H R, Fleischauer Aaron T, Bhagat Govind et al. Risk of malignancy in patients with celiac disease. *Am J Med* 2003;115(3):191-195. No prevalence or incidence reported
- Green Peter H R, Jabri Bana. Coeliac disease. *Lancet* 2003;362(9381):383-391. No prevalence or incidence reported
- Green R, Luyt D. Clinical characteristics of childhood asthmatics in Johannesburg. *S Afr Med J* 1997;87(7):878-882. No prevalence or incidence reported
- Greenberg D A, Hodge S E, Rotter J I. Evidence for recessive and against dominant inheritance at the HLA-"linked" locus in coeliac disease. *Am J Hum Genet* 1982;34(2):263-277. No prevalence or incidence reported
- Greenberg D A, Rotter J I. Two locus models for gluten sensitive enteropathy: population genetic considerations. *Am J Med Genet* 1981;8(2):205-214. No prevalence or incidence reported
- Greenberger N J. Update in gastroenterology. *Ann Intern Med* 1999;131(6):445-452. No prevalence or incidence reported
- Grigg A P, Angus P W, Hoyt R et al. The incidence, pathogenesis and natural history of steatorrhea after bone marrow transplantation. *Bone Marrow Transplant* 2003;31(8):701-703. No prevalence or incidence reported
- Grillo R, Petronzelli F, Mora B et al. Search for coeliac disease susceptibility loci on 7q11.23 candidate region: absence of association with the ELN17 microsatellite marker. *Hum Hered* 2000;50(3):180-183. No prevalence or incidence reported
- Grodzinsky E, Hed J, Skogh T. IgA antiendomysium antibodies have a high positive predictive value for celiac disease in asymptomatic patients. *Allergy* 1994;49(8):593-597. No prevalence or incidence reported
- Groisman G M, Amar M, Livne E. CD10: A valuable tool for the light microscopic diagnosis of microvillous inclusion disease (familial microvillous atrophy). *Am J Surg Pathol* 2002;26(7):902-907. No prevalence or incidence reported
- Groll A, Candy D C, Preece M A et al. Short stature as the primary manifestation of coeliac disease. *Lancet* 1980;2(8204):1097-1099. No prevalence or incidence reported
- Gruskay F L. Comparison of breast, cow, and soy feedings in the prevention of onset of allergic disease. A 15-year prospective study. *Clin Pediatr* 1982;21(8):486-491. No prevalence or incidence reported
- Guandalini S. Celiac disease in the new world. *J Pediatr Gastroenterol Nutr* 2000;31(4):362-364. No prevalence or incidence reported
- Guandalini Stefano. Celiac disease. *School Nurse News* 2003;20(2):24-27. No prevalence or incidence reported
- Guarino A, Spagnuolo M I, Russo S et al. Etiology and risk factors of severe and protracted diarrhea. *J Pediatr Gastroenterol Nutr* 1995;20(2):173-178. No prevalence or incidence reported
- Gudmand-Hoyer E. The clinical significance of disaccharide maldigestion. *Am J Clin Nutr* 1994;59(3 Suppl):735s-741s. No prevalence or incidence reported
- Guglielmino C R, De Silvestri A, Martinetti M. HLA class I and II genes in relation to the genetic structure and epidemiology of an Italian province. *Exp Clin Immunogenet* 1997;14(2):149-159. No prevalence or incidence reported
- Gumaa S N, McNicholl B, Egan-Mitchell B et al. Coeliac disease in Galway, Ireland 1971-1990. *Ir Med J* 1997;90(2):60-61. Serology screen <1990
- Gupte S. Changing concepts in celiac disease. *Jk Science* 2001;3(3):103-104. No prevalence or incidence reported
- Gutteridge D H, Robinson C J, Joplin G F. Delayed strontium absorption in post-menopausal osteoporosis and osteomalacia. *Clin Sci* 1968;34(2):351-363. No prevalence or incidence reported
- Guvenc cedil, Kaymakog caron, Gurel N et al. The prevalence of manifest and latent celiac disease in type

- I diabetes mellitus. Turk J Gastroenterol 2002;13(2):103-107. Not a relevant screening geography
- Haaber A B, Rosenfalck A M, Hansen B et al. Bone mineral metabolism, bone mineral density, and body composition in patients with chronic pancreatitis and pancreatic exocrine insufficiency. International Journal of Pancreatology - Official Journal of the International Association of Pancreatology 2000;27(1):21-27. No prevalence or incidence reported
- Habior Andrzej, Lewartowska Aleksandra, Orlowska Janina et al. Association of coeliac disease with primary biliary cirrhosis in Poland. Eur J Gastroenterol Hepatol 2003;15(2):159-164. No prevalence or incidence reported
- Hadjivassiliou M, Davies-Jones G A B, Sanders D S et al. Dietary treatment of gluten ataxia. J Neurol Neurosurg Psychiatry 2003;74(9):1221-1224. No prevalence or incidence reported
- Hadjivassiliou M, Gibson A, Davies-Jones G A et al. Does cryptic gluten sensitivity play a part in neurological illness?. Lancet 1996;347(8998):369-371. No prevalence or incidence reported
- Hadjivassiliou M, Grunewald R A, Chattopadhyay A K et al. Clinical, radiological, neurophysiological, and neuropathological characteristics of gluten ataxia. Lancet 1998;352(9140):1582-1585. No prevalence or incidence reported
- Hadjivassiliou M, Grunewald R A, Davies-Jones G A B. Gluten sensitivity as a neurological illness. J Neurol Neurosurg Psychiatry 2002;72(5):560-563. No prevalence or incidence reported
- Hadjivassiliou Marios, Grunewald Richard, Sharrack Basil et al. Gluten ataxia in perspective: epidemiology, genetic susceptibility and clinical characteristics. Brain Dev 2003;126(Pt 3):685-691. No prevalence or incidence reported
- Hadziselimovic F, Emmons L R, Schaub U et al. Occurrence of large granular lymphocytes and natural killer cells in the epithelium of the gut distinguishes two different coeliac diseases. Gut 1992;33(6):767-772. No prevalence or incidence reported
- Haeney M R, Goodwin B J, Barratt M E et al. Soya protein antibodies in man: their occurrence and possible relevance in coeliac disease. J Clin Pathol 1982;35(3):319-322. No prevalence or incidence reported
- Hagan L L, Goetz D W, Revercomb C H et al. Sudden infant death syndrome: A search for allergen hypersensitivity. Ann Allergy Asthma Immunol 1998;80(3):227-231. No prevalence or incidence reported
- Hakanen M, Luotola K, Salmi J et al. Clinical and subclinical autoimmune thyroid disease in adult coeliac disease. Dig Dis Sci 2001;46(12):2631-2635. No prevalence or incidence reported
- Hakeem V, Fifield R, al Bayaty H F et al. Salivary IgA antigliadin antibody as a marker for coeliac disease. Arch Dis Child 1992;67(6):724-727. No prevalence or incidence reported
- Hall R P, Clark R E, Ward F E. Dermatitis herpetiformis in two American blacks: HLA type and clinical characteristics. J Am Acad Dermatol 1990;22(3):436-439. No prevalence or incidence reported
- Hall R P, Owen S, Smith A et al. TCR Vbeta expression in the small bowel of patients with dermatitis herpetiformis and gluten sensitive enteropathy. Limited expression in dermatitis herpetiformis and treated asymptomatic gluten sensitive enteropathy. Exp Dermatol 2000;9(4):275-282. No prevalence or incidence reported
- Hall R P, Ward F E, Wenstrup R J. An HLA class II region restriction fragment length polymorphism (RFLP) in patients with dermatitis herpetiformis: association with HLA-DP phenotype. J Invest Dermatol 1990;95(2):172-177. No prevalence or incidence reported
- Hallert C, Astrom J. Intellectual ability of adults after lifelong intestinal malabsorption due to coeliac disease. J Neurol Neurosurg Psychiatry 1983;46(1):87-89. No prevalence or incidence reported
- Hallert C, Gotthard R, Jansson G et al. Similar prevalence of coeliac disease in children and middle-aged adults in a district of Sweden. Gut 1983;24(5):389-391. No prevalence or incidence reported
- Hallert C, Gotthard R, Norrby K et al. On the prevalence of adult coeliac disease in Sweden. Scand J Gastroenterol 1981;16(2):257-261. Serology screen <1990
- Hallert C, Granno C, Grant C et al. Quality of life of adult coeliac patients treated for 10 years. Scand J Gastroenterol 1998;33(9):933-938. No prevalence or incidence reported
- Hallert C, Granno C, Hulten S et al. Living with coeliac disease: controlled study of the burden of illness. Scand J Gastroenterol 2002;37(1):39-42. No prevalence or incidence reported
- Hallert C, Grant C, Grehn S et al. Evidence of poor vitamin status in coeliac patients on a gluten-free diet for 10 years. Aliment Pharmacol Ther

- 2002;16(7):1333-1339. No prevalence or incidence reported
- Hallert C, Lohiniemi S. Quality of life of celiac patients living on a gluten-free diet. *Nutrition* 1999;15(10):795-797. No prevalence or incidence reported
- Halme L, Mecklin J P, Juhola M et al. Primary gastrointestinal non-Hodgkin's lymphoma. A population based study in central Finland in 1975-1993. *Acta Oncol* 1997;36(1):69-74. No prevalence or incidence reported
- Halsted C H, Rowe J W. Occurrence of celiac sprue in a patient with Fabry's disease. *Ann Intern Med* 1975;83(4):524-525. No prevalence or incidence reported
- Hamilton J R, McNeill L K. Childhood celiac disease: response of treated patients to a small uniform daily dose of wheat gluten. *Eur J Pediatr* 1972;81(5):885-893. No prevalence or incidence reported
- Hansen T, Ronningen K S, Ploski R et al. Coding region polymorphisms of human T-cell receptor Vbeta6.9 and Vbeta21.4. *Scand J Immunol* 1992;36(2):285-290. No prevalence or incidence reported
- Hanson L A, Korotkova M, Haversen L et al. Breast-feeding, a complex support system for the offspring. *Pediatr Int* 2002;44(4):347-352. No prevalence or incidence reported
- Hanson L A. Human milk and host defence: immediate and long-term effects. *Acta Paediatrica (Oslo, Norway - 1992). Supplement* 1999;88(430):42-46. No prevalence or incidence reported
- Hansson T, Anneren G, Sjoberg O et al. Celiac disease in relation to immunologic serum markers, trace elements, and HLA-DR and DQ antigens in Swedish children with Down syndrome. *J Pediatr Gastroenterol Nutr* 1999;29(3):286-292. No prevalence or incidence reported
- Hansson T, Dahlbom I, Hall J et al. Antibody reactivity against human and guinea pig tissue transglutaminase in children with celiac disease. *J Pediatr Gastroenterol Nutr* 2000;30(4):379-384. No prevalence or incidence reported
- Hansson T, Dannaeus A, Kraaz W et al. Production of antibodies to gliadin by peripheral blood lymphocytes in children with celiac disease: the use of an enzyme-linked immunospot technique for screening and follow-up. *Pediatr Res* 1997;41(4 Pt 1):554-559. No prevalence or incidence reported
- Hansson T, Ulfgren A-K, Lindroos E et al. Transforming growth factor-beta (TGF-beta) and tissue transglutaminase expression in the small intestine in children with coeliac disease. *Scand J Immunol* 2002;56(5):530-537. No prevalence or incidence reported
- Hansson Tony, Dahlbom Ingrid, Rogberg Siv et al. Recombinant human tissue transglutaminase for diagnosis and follow-up of childhood coeliac disease. *Pediatr Res* 2002;51(6):700-705. No prevalence or incidence reported
- Hanukoglu A, Mizrachi A, Dalal I et al. Extraprostatic autoimmune manifestations in type 1 diabetes patients and their first-degree relatives: A multicenter study. *Diabetes Care* 2003;26(4):1235-1240. No prevalence or incidence reported
- Harris O D, Cooke W T, Thompson H et al. Malignancy in adult coeliac disease and idiopathic steatorrhoea. *Am J Med* 1967;42(6):899-912. No prevalence or incidence reported
- Harris O D, Warner M, Cooke W T. Serum alkaline phosphatase in adult coeliac disease. *Gut* 1969;10(11):951. No prevalence or incidence reported
- Harrison J E, McNeill K G, Wilson D R et al. An evaluation of isotopic calcium absorption tests. *Clin Biochem* 1973;6(4):237-245. No prevalence or incidence reported
- Harrison L C, Honeyman M C. Cow's milk and type 1 diabetes: The real debate is about mucosal immune function. *Diabetes* 1999;48(8):1501-1507. No prevalence or incidence reported
- Hartman C, Hochberg Z, Shamir R. Osteoporosis in pediatrics. *Isr Med Assoc J* 2003;5(7):509-515. No prevalence or incidence reported
- Haslam N, Lock R J, Unsworth D J. Coeliac disease, anaemia and pregnancy. *Clin Lab* 2001;47(9-10):467-469. No prevalence or incidence reported
- Haslam N, Probert C S. An audit of the investigation and treatment of folic acid deficiency. *J R Soc Med* 1998;91(2):72-73. No prevalence or incidence reported
- Hasler William L. Celiac sprue as a possible cause of symptoms in presumed irritable bowel syndrome. *Gastroenterology* 2002;122(7):2086-2087. No prevalence or incidence reported
- Hattevig G, Kjellman B, Fallstrom S P. Congenital permanent diabetes mellitus and celiac disease. *Eur J Pediatr* 1982;101(6):955-957. No prevalence or incidence reported
- Haugen M A, Kjeldsen-Kragh J, Forre O. A pilot study of the effect of an elemental diet in the management of rheumatoid arthritis. *Clin Exp*

- Rheumatol 1994;12(3):275-279. No prevalence or incidence reported
- Healy D A, Neumyer M M, Atnip R G et al. Evaluation of celiac and mesenteric vascular disease with duplex ultrasonography. *Journal of Ultrasound in Medicine - Official Journal of the American Institute of Ultrasound in Medicine* 1992;11(9):481-485. No prevalence or incidence reported
- Heederik D, Houba R. An exploratory quantitative risk assessment for high molecular weight sensitizers: Wheat flour. *Ann Occup Hyg* 2001;45(3):175-185. No prevalence or incidence reported
- Heederik D, Thorne P S, Doekes G. Health-based occupational exposure limits for high molecular weight sensitizers: How long is the road we must travel?. *Ann Occup Hyg* 2002;46(5):439-446. No prevalence or incidence reported
- Heikkinen M, Janatuinen E, Mayo K et al. Usefulness of anti-Helicobacter pylori and anti-CagA antibodies in the selection of patients for gastroscopy. *Am J Gastroenterol* 1997;92(12):2225-2229. No prevalence or incidence reported
- Heikkinen M, Pikkarainen P, Takala J et al. Etiology of dyspepsia: four hundred unselected consecutive patients in general practice. *Scand J Gastroenterol* 1995;30(6):519-523. No prevalence or incidence reported
- Heinersdorff N, Taylor T G. Concentration of zinc in the hair of schoolchildren. *Arch Dis Child* 1979;54(12):958-960. No prevalence or incidence reported
- Hendrikse W H, Reilly J J, Weaver L T. Malnutrition in a children's hospital. *Clin Nutr* 1997;16(1):13-18. No prevalence or incidence reported
- Heneghan M A, Stevens F M, Cryan E M et al. Celiac sprue and immunodeficiency states: a 25-year review. *J Clin Gastroenterol* 1997;25(2):421-425. No prevalence or incidence reported
- Herlinger H, Maglinte D D. Jejunal fold separation in adult celiac disease: relevance of enteroclysis. *Radiology* 1986;158(3):605-611. No prevalence or incidence reported
- Hernandez J L, Michalski J P, McCombs C C et al. Evidence for a dominant gene mechanism underlying coeliac disease in the west of Ireland. *Genet Epidemiol* 1991;8(1):13-27. No prevalence or incidence reported
- Hernandez M A, Colina G, Ortigosa L. Epilepsy, cerebral calcifications and clinical or subclinical coeliac disease. Course and follow up with gluten-free diet. *Seizure - the Journal of the British Epilepsy Association* 1998;7(1):49-54. No prevalence or incidence reported
- Hernell O, Ivarsson A, Persson L A. Coeliac disease: Effect of early feeding on the incidence of the disease. *Early Hum Dev* 2001;65(Suppl 2):S153-S160. No prevalence or incidence reported
- Herrera M, Chertkoff L, Palavecino E et al. Restriction fragment length polymorphism in HLA class II genes of Latin-American Caucasian celiac disease patients. *Hum Immunol* 1989;26(4):272-280. No prevalence or incidence reported
- Herrera M, Theiler G, Augustovski F et al. Molecular characterization of HLA class II genes in celiac disease patients of Latin American Caucasian origin. *Tissue Antigens* 1994;43(2):83-87. No prevalence or incidence reported
- Hertvig E, Wieslander J, Johansson C et al. Anti-neutrophil cytoplasmic antibodies in chronic inflammatory bowel disease. Prevalence and diagnostic role. *Scand J Gastroenterol* 1995;30(7):693-698. No prevalence or incidence reported
- Hervonen K, Hakanen M, Kaukinen K et al. First-degree relatives are frequently affected in coeliac disease and dermatitis herpetiformis. *Scand J Gastroenterol* 2002;37(1):51-55. Not a relevant screening test
- Hetzel P A S, LaBrooy J T, Bellon M. The sup 5sup 1Cr EDTA absorption test in coeliac patients treated with a gluten free diet. *Ircs Med Sci* 1986;14(12):1183-1184. No prevalence or incidence reported
- Hetzel P A, Bennett G D, Sheldon A B et al. Genetic markers in Australian Caucasian subjects with coeliac disease. *Tissue Antigens* 1987;30(1):18-22. No prevalence or incidence reported
- Hilhorst M I, Brink M, Wauters E A K et al. Down syndrome and coeliac disease: Five new cases with a review of the literature. *Eur J Pediatr* 1993;152(11):884-887. No prevalence or incidence reported
- Hill A V S. Immunogenetics and genomics. *Lancet* 2001;357(9273):2037-2041. No prevalence or incidence reported
- Hill D J, Hosking C S, Zhie C Y et al. The frequency of food allergy in Australia and Asia. *Environ Toxicol Pharmacol* 1997;4(1-2):101-110. No prevalence or incidence reported
- Hill D J, Hudson I L, Sheffield L J et al. A low allergen diet is a significant intervention in infantile colic: results of a community-based study. *J Allergy*

- Clin Immunol 1995;96(6 Pt 1):886-892. No prevalence or incidence reported
- Hill I D. Celiac disease - A never-ending story?. Eur J Pediatr 2003;143(3):289-291. No prevalence or incidence reported
- Hill L E. Hypogammaglobulinaemia in the United Kingdom. 3. Clinical features of hypogammaglobulinaemia. Special Report Series, Medical Research Council (Great Britain) 1971;3109-34. No prevalence or incidence reported
- Hillemeier C, Gryboski J. Diabetes and the gastrointestinal tract in the pediatric patient. Yale J Biol Med 1983;56(3):195-201. No prevalence or incidence reported
- Hitman G A, Niven M J, Festenstein H et al. HLA class II alpha chain gene polymorphisms in patients with insulin-dependent diabetes mellitus, dermatitis herpetiformis, and celiac disease. Eur J Clin Invest 1987;79(2):609-615. No prevalence or incidence reported
- Hjelt K, Krasilnikoff P A. The impact of gluten on haematological status, dietary intakes of haemopoietic nutrients and vitamin B12 and folic acid absorption in children with coeliac disease. Acta Paediatr Scand 1990;79(10):911-919. No prevalence or incidence reported
- Hobbs J R. Immunoflobulins and malabsorption. Proc R Soc Med 1969;62(10):982-985. No prevalence or incidence reported
- Hodges S, Lobo-Yeo A, Donaldson P et al. Autoimmune chronic active hepatitis in a family. Gut 1991;32(3):299-302. No prevalence or incidence reported
- Hoey John. Irritable bowel syndrome: could it be celiac disease?. Cmaj - Canadian Medical Association Journal = Journal De L'association Medicale Canadienne 2002;166(4):479-480. No prevalence or incidence reported
- Hoffbrand A V. Anaemia in adult coeliac disease. Clin Gastroenterol 1974;3(1):71-89. No prevalence or incidence reported
- Hoffenberg E J, Bao F, Eisenbarth G S et al. Transglutaminase antibodies in children with a genetic risk for celiac disease. Eur J Pediatr 2000;137(3):356-360. Not a relevant screening group
- Hoffmann Jorg C, Zeitz Martin. Small bowel disease in the elderly: diarrhoea and malabsorption. Best Practice & Research. Clinical Gastroenterology 2002;16(1):17-36. No prevalence or incidence reported
- Hoffmann M, Vogelsang H, Kletter K et al. 18F-fluoro-deoxy-glucose positron emission tomography (18F-FDG-PET) for assessment of enteropathy-type T cell lymphoma. Gut 2003;52(3):347-351. No prevalence or incidence reported
- Hogberg L, Nordwall M, Stenhammar L. One thousand small-bowel biopsies in children. A single-port versus a double-port capsule. Scand J Gastroenterol 2001;36(11):1230-1232. No prevalence or incidence reported
- Hoggan R. Considering wheat, rye, and barley proteins as aids to carcinogens. Med Hypotheses 1997;49(3):285-288. No prevalence or incidence reported
- Holden Wendy, Orchard Tim, Wordsworth Paul. Enteropathic arthritis. Rheum Dis Clin North Am 2003;29(3):513-30, Viii. No prevalence or incidence reported
- Holm K, Maki M, Savilahti E et al. Intraepithelial gamma delta T-cell-receptor lymphocytes and genetic susceptibility to coeliac disease. Lancet 1992;339(8808):1500-1503. No prevalence or incidence reported
- Holmes G K T. Coeliac disease and malignancy. Ann Nestle 1993;51(2):66-74. No prevalence or incidence reported
- Holmes G K T. Coeliac disease and malignancy. Digestive and Liver Disease - Official Journal of the Italian Society of Gastroenterology and the Italian Association for the Study of the Liver 2002;34(3):229-237. No prevalence or incidence reported
- Holmes G K T. Screening for coeliac disease in type 1 diabetes. Arch Dis Child 2002;87(6):495-498. No prevalence or incidence reported
- Holmes G K, Prior P, Lane M R et al. Malignancy in coeliac disease--effect of a gluten free diet. Gut 1989;30(3):333-338. No prevalence or incidence reported
- Holmes G K, Stokes P L, Sorahan T M et al. Coeliac disease, gluten-free diet, and malignancy. Gut 1976;17(8):612-619. No prevalence or incidence reported
- Holmes G K. Celiac disease and malignancy. J Pediatr Gastroenterol Nutr 1997;24(5):S20-S23. No prevalence or incidence reported
- Holmes G K. Coeliac disease and Type 1 diabetes mellitus - the case for screening. Diabetic Medicine - a Journal of the British Diabetic Association 2001;18(3):169-177. No prevalence or incidence reported

- Holmes G K. Non-malignant complications of coeliac disease. *Acta Paediatr* 1996;412(Suppl):68-75. No prevalence or incidence reported
- Holmgren Peterson K, Falth-Magnusson K, Magnusson K-E et al. Children with celiac disease express inducible nitric oxide synthase in the small intestine during gluten challenge. *Scand J Gastroenterol* 1998;33(9):939-943. No prevalence or incidence reported
- Holopainen P, Arvas M, Sistonen P et al. CD28/CTLA4 gene region on chromosome 2q33 confers genetic susceptibility to celiac disease. A linkage and family-based association study. *Tissue Antigens* 1999;53(5):470-475. No prevalence or incidence reported
- Holopainen P, Mustalahti K, Uimari P et al. Candidate gene regions and genetic heterogeneity in gluten sensitivity. *Gut* 2001;48(5):696-701. No prevalence or incidence reported
- Holt P R. The small intestine. *Clin Gastroenterol* 1985;14(4):689-723. No prevalence or incidence reported
- Holt Peter R. Gastrointestinal diseases in the elderly. *Curr Opin Clin Nutr Metab Care* 2003;6(1):41-48. No prevalence or incidence reported
- Holtmeier J, Leuschner U. Medical treatment of primary biliary cirrhosis and primary sclerosing cholangitis. *Digestion* 2001;64(3):137-150. No prevalence or incidence reported
- Hoof C, Devos E, Van Damme J. Coeliac disease in a diabetic child. *Lancet* 1969;2(7612):161No prevalence or incidence reported
- Hoof C, Roels H, Devos E. Diabetes and coeliac disease. *Lancet* 1969;2(7631):1192No prevalence or incidence reported
- Hornell A, Hofvander Y, Kylberg E. Introduction of solids and formula to breastfed infants: A longitudinal prospective study in Uppsala, Sweden. *Acta Paediatr Int J Paediatr* 2001;90(5):477-482. No prevalence or incidence reported
- Horvath K, Hill I D. Anti-tissue transglutaminase antibody as the first line screening for celiac disease: Good-bye antigliadin tests?. *Am J Gastroenterol* 2002;97(11):2702-2704. No prevalence or incidence reported
- Horvath K, Horn G. Tardyferon therapy in hyposiderosis of infancy and childhood. *Ther Hung* 1992;40(1):40-43. No prevalence or incidence reported
- Horvath K, Mehta D I. Celiac disease--a worldwide problem. *Indian J Pediatr* 2000;67(10):757-763. No prevalence or incidence reported
- Houba R, Heederik D, Doekes G. Wheat sensitization and work-related symptoms in the baking industry are preventable: An epidemiologic study. *Am J Respir Crit Care Med* 1998;158(5 Pt 1):1499-1503. No prevalence or incidence reported
- Houlston R S, Ford D. Genetics of coeliac disease. *Qjm - Monthly Journal of the Association of Physicians* 1996;89(10):737-743. No prevalence or incidence reported
- Houlston R S, Tomlinson I P, Ford D et al. Linkage analysis of candidate regions for coeliac disease genes. *Hum Mol Genet* 1997;6(8):1335-1339. No prevalence or incidence reported
- Hourihane J O, Strobel S. Clinical features of food allergy. *Comments Toxicol* 2002;8(3):307-319. No prevalence or incidence reported
- Hourihane J O. Prevalence and severity of food allergy--need for control. *Allergy* 1998;53(46 Suppl):84-88. No prevalence or incidence reported
- Hovdenak N. Prevalence and clinical picture of adult gluten-induced enteropathy in a Norwegian population. *Scand J Gastroenterol* 1980; 15(4):401-404. Unable to obtain full article
- Hovell C J, Collett J A, Vautier G et al. High prevalence of coeliac disease in a population-based study from Western Australia: a case for screening?. *Med J Aust* 2001;175(5):247-250. Not a relevant screening geography
- Howard F M, Carter C O, Candy D C et al. A family study of protracted diarrhoea in infancy. *J Med Genet* 1981;18(2):81-86. No prevalence or incidence reported
- Howdle P D, Jalal P K, Holmes G K T et al. Primary small-bowel malignancy in the UK and its association with coeliac disease. *Qjm - Monthly Journal of the Association of Physicians* 2003;96(5):345-353. No prevalence or incidence reported
- Howell W, Martin Calder, Philip C et al. Gene polymorphisms, inflammatory diseases and cancer. *Proc Nutr Soc* 2002;61(4):447-456. No prevalence or incidence reported
- Hozyasz K K. Sex ratio variation in offspring of celiac women - Preliminary report. *Pediatr Wspolczesna* 2002;4(3):253-255. No prevalence or incidence reported
- Hummel M, Bonifacio E, Stern M et al. Development of celiac disease-associated antibodies in offspring of

- parents with type I diabetes. *Diabetologia* 2000;43(8):1005-1011. No prevalence or incidence reported
- Hummel M, Ziegler A G, Bonifacio E. Type 1 diabetes mellitus, celiac disease and their association--lessons from antibodies. *Journal of Pediatric Endocrinology & Metabolism - Jpem* 2001;14(Suppl 1):607-610. No prevalence or incidence reported
- Hurley T H, Sullivan J R, Hurley J V. Reaction to Kveim test material in sarcoidosis and other diseases. *Lancet* 1975;1(7905):494-496. No prevalence or incidence reported
- Hussain G, Ali S, Iqbal M M et al. Study of coeliac disease in children. *J Coll Phys Surg Pak* 1999;9(2):81-84. Not a relevant screening geography
- Hyams J S, Treem W R, Justinich C J et al. Characterization of symptoms in children with recurrent abdominal pain: resemblance to irritable bowel syndrome. *J Pediatr Gastroenterol Nutr* 1995;20(2):209-214. No prevalence or incidence reported
- Hyams J S. Celiac disease: New thoughts an an old problem. *Curr Opin Pediatr* 1997;9(5):487-489. No prevalence or incidence reported
- Hyer W, Cotterill A M, Savage M O. Common causes of short stature detectable by a height surveillance programme. *J Med Screen* 1995;2(3):150-153. No prevalence or incidence reported
- Hylander E, Jarnum S, Kempel K et al. The absorption of oxalate, calcium, and fat after jejunioileal bypass. A prospective study. *Scand J Gastroenterol* 1980;15(3):343-348. No prevalence or incidence reported
- Iacono G, Carroccio A, Montalto G et al. Steatocrit test: normal range and physiological variations in preterm and low-birth-weight full-term newborns. *Acta Paediatr* 1992;81(11):933-934. No prevalence or incidence reported
- Ide A, Eisenbarth G S. Genetic susceptibility in type 1 diabetes and its associated autoimmune disorders. *Rev Endocr Metab Disord* 2003;4(3):243-253. No prevalence or incidence reported
- Iglesias S, Chapon F, Baron J C. Familial occipital calcifications, hemorrhagic strokes, leukoencephalopathy, dementia, and external carotid dysplasia. *Neurology* 2000;55(11):1661-1667. No prevalence or incidence reported
- Iltanen S, Collin P, Korpela M et al. Celiac disease and markers of celiac disease latency in patients with primary Sjogren's syndrome. *Am J Gastroenterol* 1999;94(4):1042-1046. Not a relevant screening group
- Ilyas M, Niedobitek G, Agathangelou A et al. Non-Hodgkin's lymphoma, coeliac disease, and Epstein-Barr virus: a study of 13 cases of enteropathy-associated T- and B-cell lymphoma. *Am J Pathol* 1995;177(2):115-122. No prevalence or incidence reported
- Imai T, Akasawa A, Iikura Y. Nationwide food allergy survey. *Int Arch Allergy Immunol* 2001;124(1-3):312-314. No prevalence or incidence reported
- Iovino P, Ciacci C, Sabbatini F et al. Esophageal impairment in adult celiac disease with steatorrhea. *Am J Gastroenterol* 1998;93(8):1243-1249. No prevalence or incidence reported
- ipetic S, Vlajinac H, Kocev N et al. Family history and risk of type 1 diabetes mellitus. *Acta Diabetol Lat* 2002;39(3):111-115. No prevalence or incidence reported
- Isaacson P G. Gastrointestinal lymphomas of T- and B-cell types. *Mod Pathol* 1999;12(2):151-158. No prevalence or incidence reported
- Isaksson B, Lindholm B, Sjogren B. A critical evaluation of the calcium balance technic. II. Dermal calcium losses. *Metabolism- Clinical and Experimental* 1967;16(4):303-313. No prevalence or incidence reported
- Isbell R G, Carlson H C, Hoffman H N. Roentgenologic-pathologic correlation in malabsorption syndromes. *Am J Roentgenol Radium Ther Nucl Med* 1969;107(1):158-169. No prevalence or incidence reported
- Iughetti L, Bulgarelli S, Forese S et al. Endocrine aspects of coeliac disease. *Journal of Pediatric Endocrinology & Metabolism - Jpem* 2003;16(6):805-818. No prevalence or incidence reported
- Ivarsson A, Hernell O, Nystrom L et al. Children born in the summer have increased risk for coeliac disease. *J Epidemiol Community Health* 2003;57(1):36-39. No prevalence or incidence reported
- Ivarsson A, Hernell O, Stenlund H et al. Breast-feeding protects against celiac disease. *Am J Clin Nutr* 2002;75(5):914-921. No prevalence or incidence reported
- Ivarsson A, Persson L A, Hernell O. Does breast-feeding affect the risk for coeliac disease?. *Adv Exp Med Biol* 2000;478:139-149. No prevalence or incidence reported
- Ivarsson A. On the multifactorial aetiology of coeliac disease. *Scand J Nutr Naringsforsk* 2001;45(4):184-185. No prevalence or incidence reported

- Ivarsson S A, Carlsson A, Bredberg A et al. Prevalence of coeliac disease in Turner syndrome. *Acta Paediatr* 1999;88(9):933-936. Not a relevant screening group
- Iwanczak F, Mozrzymas R, Heimrath Z et al. Clinical evaluation of food allergy and food intolerance dietary treatment in children. *Rocz Akad Med Bialymst* 1995;40(3):588-594. No prevalence or incidence reported
- Jabbar A A R. HLA and disease associations in Iraq. *Dis Markers* 1993;11(4):161-170. No prevalence or incidence reported
- Jackson F. The coevolutionary relationship of humans and domesticated plants. *Am J Phys Anthropol* 1996;-(Suppl 23):161-176. No prevalence or incidence reported
- James M W, Scott B B. Coeliac disease: the cause of the various associated disorders?. *Eur J Gastroenterol Hepatol* 2001;13(9):1119-1121. No prevalence or incidence reported
- James M W, Scott B B. Evidence-based clinical medicine: Application of a diagnostic test using the example of coeliac disease. *Cme J Gastroenterol Hepatol Nutr* 2001;4(1):28-31. No prevalence or incidence reported
- James O F W. NASH/NAFLD management. *Acta Gastro-Enterol Belg* 2002;65(4):200-203. No prevalence or incidence reported
- Jameson S. Zinc status in pregnancy: the effect of zinc therapy on perinatal mortality, prematurity, and placental ablation. *Ann N Y Acad Sci* 1993;678:178-192. No prevalence or incidence reported
- Janatkova I, Malic caron, Fu caron et al. Diagnostic asset of assessment of autoantibodies in gluten-sensitive enteropathy. *Epidemiol Mikrobiol Immunol* 2002;51(3):125-130. No prevalence or incidence reported
- Janatuinen E K, Kempainen T A, Julkunen R J K et al. No harm from five year ingestion of oats in coeliac disease. *Gut* 2002;50(3):332-335. No prevalence or incidence reported
- Jansson U, Johansson C. Down syndrome and coeliac disease. *J Pediatr Gastroenterol Nutr* 1995;21(4):443-445. No prevalence or incidence reported
- Jarvinen K-M, Turpeinen M, Suomalainen H. Concurrent cereal allergy in children with cow's milk allergy manifested with atopic dermatitis. *Clin Exp Allergy* 2003;33(8):1060-1066. No prevalence or incidence reported
- Jawhari A, Talbot I C. Microscopic, lymphocytic and collagenous colitis. *Histopathology* 1996;29(2):101-110. No prevalence or incidence reported
- Jaworski Z F. Pathophysiology, diagnosis and treatment of osteomalacia. *Orthop Clin North Am* 1972;3(3):623-652. No prevalence or incidence reported
- Jeffrey P, Griffin P, Gibson M et al. Small bakeries - A cross-sectional study of respiratory symptoms, sensitization and dust exposure. *Occup Med* 1999;49(4):237-241. No prevalence or incidence reported
- Jenkins D J A, Taylor R H, Wolever T M S. The diabetic diet, dietary carbohydrate and differences in digestibility. *Diabetologia* 1982;23(6):477-484. No prevalence or incidence reported
- Jenkins D, Goodall A, Scott B B. T-lymphocyte populations in normal and coeliac small intestinal mucosa defined by monoclonal antibodies. *Gut* 1986;27(11):1330-1337. No prevalence or incidence reported
- Jenkins D, Goodall A, Scott B. T-cell and plasma cell populations in coeliac small intestinal mucosa in relation to dermatitis herpetiformis. *Gut* 1989;30(7):955-958. No prevalence or incidence reported
- Jennings J S R, Howdle P D. Celiac disease. *Curr Opin Gastroenterol* 2001;17(2):118-126. No prevalence or incidence reported
- Jevon G P, Dimmick J E, Dohil R et al. Spectrum of gastritis in celiac disease in childhood. *Pediatric and Developmental Pathology - the Official Journal of the Society for Pediatric Pathology and the Paediatric Pathology Society* 1999;2(3):221-226. No prevalence or incidence reported
- Jewell D P. Celiac disease. *Can J Gastroenterol* 2000;14(8):665-666. No prevalence or incidence reported
- Jiskra J, Limanova Z, Vanic caron et al. IgA and IgG antigliadin, IgA anti-tissue transglutaminase and antiendomysial antibodies in patients with autoimmune thyroid diseases and their relationship to thyroidal replacement therapy. *Physiol Res* 2003;52(1):79-88. No prevalence or incidence reported
- Johanns W, Jakobeit C, Greiner L et al. Ultrasound-guided extracorporeal shock wave lithotripsy of pancreatic ductal stones: six years' experience. *Can J Gastroenterol* 1996;10(7):471-475. No prevalence or incidence reported

- Johansen B H, Buus S, Vartdal F et al. Binding of peptides to HLA-DQ molecules: Peptide binding properties of the disease-associated HLA-DQ(alpha1(\*)0501, beta1(\*)0201) molecule. *Int Immunol* 1994;6(3):453-461. No prevalence or incidence reported
- Johansen B H, Jensen T, Thorpe C J et al. Both alpha and beta chain polymorphisms determine the specificity of the disease-associated HLA-DQ2 molecules, with beta chain residues being most influential. *Immunogenetics* 1996;45(2):142-150. No prevalence or incidence reported
- Johansen B H, Vartdal F, Eriksen J A et al. Identification of a putative motif for binding of peptides to HLA-DQ2. *Int Immunol* 1996;8(2):177-182. No prevalence or incidence reported
- Johnell O, Obrant K J. What is the impact of osteoporosis?. *Bailliere's Clin Rheumatol* 1997;11(3):459-477. No prevalence or incidence reported
- Johnson T N, Tanner M S, Taylor C J et al. Enterocytic CYP3A4 in a paediatric population: developmental changes and the effect of coeliac disease and cystic fibrosis. *Br J Clin Pharmacol* 2001;51(5):451-460. No prevalence or incidence reported
- Johnston S D, Peter Watson R G, McMillan S A. Soda bread provocation test for subjects with transient serology for coeliac disease 3 years after a population screening survey. *Eur J Gastroenterol Hepatol* 2000;12(9):1013-1015. No prevalence or incidence reported
- Johnston S D, Ritchie C, Robinson J. Application of red cell distribution width to screening for coeliac disease in insulin-dependent diabetes mellitus. *Ir J Med Sci* 1999;168(3):167-170. No prevalence or incidence reported
- Johnston S D, Watson R G P, McMillan S A et al. Prevalence of coeliac disease in Northern Ireland. *Lancet* 1997;350(9088):1370. Not a relevant screening test
- Johnston S D, Watson R G P. Small bowel lymphoma in unrecognized coeliac disease: A cause for concern?. *Eur J Gastroenterol Hepatol* 2000;12(6):645-648. No prevalence or incidence reported
- Johnston S D, Watson R G, McMillan S A et al. Preliminary results from follow-up of a large-scale population survey of antibodies to gliadin, reticulin and endomysium. *Acta Paediatr* 1996;412(Suppl):61-64. Not a relevant screening test
- Johnston S D, Watson R G, McMillan S A et al. Serological markers for coeliac disease: changes with time and relationship to enteropathy. *Eur J Gastroenterol Hepatol* 1998;10(3):259-264. No prevalence or incidence reported
- Johnston S D, Watson R G, Middleton D et al. Genetic, morphometric and immunohistochemical markers of latent coeliac disease. *Eur J Gastroenterol Hepatol* 1999;11(11):1283-1288. No prevalence or incidence reported
- Johnston Simon D, McMillan Stanley A, Collins John S et al. A comparison of antibodies to tissue transglutaminase with conventional serological tests in the diagnosis of coeliac disease. *Eur J Gastroenterol Hepatol* 2003;15(9):1001-1004. No prevalence or incidence reported
- Jokinen J, Peters U, Maki M et al. Celiac sprue in patients with chronic oral mucosal symptoms. *J Clin Gastroenterol* 1998;26(1):23-26. No prevalence or incidence reported
- Jones S M, Magnolfi C F, Cooke S K et al. Immunologic cross-reactivity among cereal grains and grasses in children with food hypersensitivity. *J Allergy Clin Immunol* 1995;96(3):341-351. No prevalence or incidence reported
- Kaczmarzki M, Kurzatowska B. The contribution of some constitutional factors to the development of cow's milk and gluten intolerance in children. *Rocz Akad Med Bialymst* 1989;33-34:167-176. No prevalence or incidence reported
- Kaczmarzki M, Kurzatowska B. The contribution of some environmental factors to the development of cow's milk and gluten intolerance in children. *Rocz Akad Med Bialymst* 1989;33-34:151-165. No prevalence or incidence reported
- Kaerlev L, Teglbjaerg P S, Sabroe S et al. Medical risk factors for small-bowel adenocarcinoma with focus on Crohn disease: a European population-based case-control study. *Scand J Gastroenterol* 2001;36(6):641-646. No prevalence or incidence reported
- Kagnoff M F, Weiss J B, Brown R J. Immunoglobulin allotype markers in gluten-sensitive enteropathy. *Lancet* 1983;1(8331):952-953. No prevalence or incidence reported
- Kainulainen H, Rantala I, Collin P et al. Blisters in the small intestinal mucosa of coeliac patients contain T cells positive for cyclooxygenase 2. *Gut* 2002;50(1):84-89. No prevalence or incidence reported
- Kalapesi Z, Rees J P R. Coeliac disease in schoolchildren. *Ir Med J* 1978;71(6):188-191. No prevalence or incidence reported

- Kalayci A G, Kansu A, Girgin N et al. Bone mineral density and importance of a gluten-free diet in patients with celiac disease in childhood. *Pediatrics* 2001;108(5):E89. No prevalence or incidence reported
- Kallikorm R, Uibo O, Uibo R. Coeliac disease in spondyloarthropathy: usefulness of serological screening. *Clin Rheumatol* 2000;19(2):118-122. No prevalence or incidence reported
- Kalra K K, Jain N, Mittal S K. Management of celiac disease. *Indian J Pediatr* 1999;66(1 Suppl):S32-S36. No prevalence or incidence reported
- Kansu A, Kalayci A G, Altuntas B et al. Autoimmune hepatitis in children: A report of ten cases. *Turk J Med Sci* 2000;30(1):55-61. No prevalence or incidence reported
- Kanungo A, Samal K C, Sanjeevi C B. Molecular mechanisms involved in the etiopathogenesis of malnutrition-modulated diabetes mellitus. *Ann N Y Acad Sci* 2002;958:138-143. No prevalence or incidence reported
- Kanungo A, Shtauvere-Brameus A, Samal K C et al. Autoantibodies to tissue transglutaminase in patients from eastern India with malnutrition-modulated diabetes mellitus, insulin-dependent diabetes mellitus, and non-insulin-dependent diabetes mellitus. *Ann N Y Acad Sci* 2002;958:232-234. Not a relevant screening geography
- Karagiozoglou-Lampoudi T, Nousia-Arvanitaki S, Augoustidou-Savopoulou P et al. Insulin secretion decline unrelated to jejunal morphology or exocrine pancreatic function in children with celiac disease. *Journal of Pediatric Endocrinology & Metabolism - Jpem* 1996;9(6):585-591. No prevalence or incidence reported
- Karczewska K, Lukasik M, Kasner J et al. Familial occurrence of celiac disease and isolated immunoglobulin a deficiency. *Med Sci Monit* 1998;4(5):836-839. No prevalence or incidence reported
- Karell K, Holopainen P, Mustalahti K et al. Not all HLA DR3 DQ2 haplotypes confer equal susceptibility to coeliac disease: transmission analysis in families. *Scand J Gastroenterol* 2002;37(1):56-61. No prevalence or incidence reported
- Karell K, Korponay-Szabo I, Szalai Zs et al. Genetic dissection between coeliac disease and dermatitis herpetiformis in sib pairs. *Ann Hum Genet* 2002;66(Pt 5-6):387-392. No prevalence or incidence reported
- Kariv R, Arber N. Malignant tumors of the small intestine - New insights into a rare disease. *Isr Med Assoc J* 2003;5(3):188-192. No prevalence or incidence reported
- Kasperlik-Zal(stroke)uska AA, Czarnocka B, Czech W. Autoimmunity as the most frequent cause of idiopathic secondary adrenal insufficiency: Report of 111 cases. *Autoimmunity* 2003;36(3):155-159. No prevalence or incidence reported
- Kastin D A, Buchman A L. Malnutrition and gastrointestinal disease. *Curr Opin Gastroenterol* 2002;18(2):221-228. No prevalence or incidence reported
- Katz A J, Falchuk Z M. Current concepts in gluten sensitive enteropathy (celiac sprue). *Pediatr Clin North Am* 1975;22(4):767-785. No prevalence or incidence reported
- Katz K D. Celiac Disease - Current Clinical Considerations in Treatment and Avoidance of Nutritional Deficiencies. *Today's Ther Trends* 2003;21(4):379-389. No prevalence or incidence reported
- Kaukinen K, Collin P, Holm K et al. Small-bowel mucosal inflammation in reticulin or gliadin antibody-positive patients without villous atrophy. *Scand J Gastroenterol* 1998;33(9):944-949. No prevalence or incidence reported
- Kaukinen K, Collin P, Holm K et al. Wheat starch-containing gluten-free flour products in the treatment of coeliac disease and dermatitis herpetiformis. A long-term follow-up study. *Scand J Gastroenterol* 1999;34(2):163-169. No prevalence or incidence reported
- Kaukinen K, Maki M, Partanen J et al. Celiac disease without villous atrophy: revision of criteria called for. *Dig Dis Sci* 2001;46(4):879-887. No prevalence or incidence reported
- Kaukinen Katri, Sulkanen Satu, Maki Markku et al. IgA-class transglutaminase antibodies in evaluating the efficacy of gluten-free diet in coeliac disease. *Eur J Gastroenterol Hepatol* 2002;14(3):311-315. No prevalence or incidence reported
- Kaur Gurvinder, Sarkar N, Bhatnagar S et al. Pediatric celiac disease in India is associated with multiple DR3-DQ2 haplotypes. *Hum Immunol* 2002;63(8):677-682. No prevalence or incidence reported
- Kavin H. Adult coeliac disease in South Africa. An analysis of 20 cases emphasizing atypical presentations. *South African Medical Journal.Suid-Afrikaanse Tydskrif Vir Geneeskunde* 1981;59(18):628-632. No prevalence or incidence reported
- Kawasaki E, Eisenbarth G S. High-throughput radioassays for autoantibodies to recombinant

- autoantigens. *Front Biosci* 2000;5:e181-e190. No prevalence or incidence reported
- Kaye P S. Osteoporosis and fracture as a result of gastrointestinal and hepatic disorders. *Pract Gastroenterol* 1999;23(3):15-34. No prevalence or incidence reported
- Keaveny A P, Freaney R, McKenna M J et al. Bone remodeling indices and secondary hyperparathyroidism in celiac disease. *Am J Gastroenterol* 1996;91(6):1226-1231. No prevalence or incidence reported
- Kedzierska A, Turowski G. HLA class I antigens in families with coeliac disease. *Medical Science Monitor - International Medical Journal of Experimental and Clinical Research* 2000;6(5):957-963. No prevalence or incidence reported
- Kedzierska A, Turowski G. HLA class I haplotypes in families of children with coeliac disease. *Medical Science Monitor - International Medical Journal of Experimental and Clinical Research* 2000;6(2):336-341. No prevalence or incidence reported
- Keeton G R. Malabsorption in the Bantu. *South African Medical Journal.Suid-Afrikaanse Tydskrif Vir Geneeskunde* 1972;46(33):1170-1174. No prevalence or incidence reported
- Kellock T D, Pearson J R, Russell R I et al. The incidence and clinical significance of faecal hydroxy fatty acids. *Gut* 1969;10(12):1055. No prevalence or incidence reported
- Kelly D A, Phillips A D, Elliott E J et al. Rise and fall of coeliac disease 1960-85. *Arch Dis Child* 1989;64(8):1157-1160. No prevalence or incidence reported
- Kelly J, O'Farrelly C, Rees J P et al. Humoral response to alpha gliadin as serological screening test for coeliac disease. *Arch Dis Child* 1987;62(5):469-473. No prevalence or incidence reported
- Kemppainen T A, Kosma V M, Janatuinen E K et al. Nutritional status of newly diagnosed celiac disease patients before and after the institution of a celiac disease diet--association with the grade of mucosal villous atrophy. *Am J Clin Nutr* 1998;67(3):482-487. No prevalence or incidence reported
- Kemppainen T, Kroger H, Janatuinen E et al. Bone recovery after a gluten-free diet: a 5-year follow-up study. *Bone* 1999;25(3):355-360. No prevalence or incidence reported
- Kemppainen T, Kroger H, Janatuinen E et al. Osteoporosis in adult patients with celiac disease. *Bone* 1999;24(3):249-255. No prevalence or incidence reported
- Kemppainen T, Uusitupa M, Janatuinen E et al. Intakes of nutrients and nutritional status in coeliac patients. *Scand J Gastroenterol* 1995;30(6):575-579. No prevalence or incidence reported
- Kennedy N P, Feighery C. Clinical features of coeliac disease today. *Biomed Pharmacother* 2000;54(7):373-380. No prevalence or incidence reported
- Kepczyk T, Cremins J E, Long B D et al. A prospective, multidisciplinary evaluation of premenopausal women with iron-deficiency anemia. *Am J Gastroenterol* 1999;94(1):109-115. No prevalence or incidence reported
- Kero J, Gissler M, Hemminki E et al. Could TH1 and TH2 diseases coexist? Evaluation of asthma incidence in children with coeliac disease, type 1 diabetes, or rheumatoid arthritis: a register study. *J Allergy Clin Immunol* 2001;108(5):781-783. No prevalence or incidence reported
- Kerttula T O, Holm K, Partanen J et al. Circulating T lymphocyte subsets in coeliac disease (CoD) patients and healthy family members. *Clin Exp Immunol* 1998;111(3):536-540. No prevalence or incidence reported
- Keuning J J, Pena A S, van Leeuwen A et al. HLA-DW3 associated with coeliac disease. *Lancet* 1976;1(7958):506-508. No prevalence or incidence reported
- Khoo J, Shek L, Khor E S H et al. Pattern of sensitization to common environmental allergens amongst atopic Singapore children in the first 3 years of life. *Asian Pac J Allergy Immunol* 2001;19(4):225-229. No prevalence or incidence reported
- Khosho V, Bhan M K, Puri S et al. Serum anti-gliadin antibody profile in childhood protracted diarrhoea due to coeliac disease and other causes in a developing country. *Scand J Gastroenterol* 1989;24(10):1212-1216. No prevalence or incidence reported
- Khuffash F A, Barakat M H, Shaltout A A et al. Coeliac disease among children in Kuwait: difficulties in diagnosis and management. *Gut* 1987;28(12):1595-1599. No prevalence or incidence reported
- Khulusi S, Rhodes J. Diagnostic dilemmas in colitis. *J R Coll Phys London* 1997;31(6):618-623. No prevalence or incidence reported
- Kieffer M, Barnetson R S, Blackwell J N. Sequential studies of gliadin antibodies in patients with dermatitis herpetiformis. *Arch Dermatol Res* 1984;276(2):74-77. No prevalence or incidence reported

- Kieslich M, Errazuriz G, Posselt H G et al. Brain white-matter lesions in celiac disease: a prospective study of 75 diet-treated patients. *Pediatrics* 2001;108(2):E21 No prevalence or incidence reported
- Kilmartin C, Lynch S, Abuzakouk M et al. Avenin fails to induce a Th1 response in coeliac tissue following in vitro culture. *Gut* 2003;52(1):47-52. No prevalence or incidence reported
- Kilpatrick Z M, Katz J. Occult celiac disease as a cause of iron deficiency anemia. *Jama - the Journal of the American Medical Association* 1969;208(6):999-1001. No prevalence or incidence reported
- Kim Soo, Youl Jeitner, Thomas M et al. Transglutaminases in disease. *Neurochem Int* 2002;40(1):85-103. No prevalence or incidence reported
- Kimber Ian, Dearman Rebecca J. Factors affecting the development of food allergy. *Proc Nutr Soc* 2002;61(4):435-439. No prevalence or incidence reported
- King A L, Ciclitira P J. Celiac disease: strongly heritable, oligogenic, but genetically complex. *Mol Genet Metab* 2000;71(1-2):70-75. No prevalence or incidence reported
- King A L, Fraser J S, Moodie S J et al. Coeliac disease: follow-up linkage study provides further support for existence of a susceptibility locus on chromosome 11p11. *Ann Hum Genet* 2001;65(Pt 4):377-386. No prevalence or incidence reported
- King A L, Yiannakou J Y, Brett P M et al. A genome-wide family-based linkage study of coeliac disease. *Ann Hum Genet* 2000;64(Pt 6):479-490. No prevalence or incidence reported
- Kingham J G, Parker D R. The association between primary biliary cirrhosis and coeliac disease: a study of relative prevalences. *Gut* 1998;42(1):120-122. No prevalence or incidence reported
- Kinston W, Loader P, Miller L. Emotional health of families and their members where a child is obese. *J Psychosom Res* 1987;31(5):583-599. No prevalence or incidence reported
- Kiper N, Gocmen A, Ozcelik U et al. Long-term clinical course of patients with idiopathic pulmonary hemosiderosis (1979-1994): Prolonged survival with low-dose corticosteroid therapy. *Pediatr Pulmonol* 1999;27(3):180-184. No prevalence or incidence reported
- Kitts D, Yuan Y, Joneja J et al. Adverse reactions to food constituents: allergy, intolerance, and autoimmunity. *Can J Physiol Pharmacol* 1997;75(4):241-254. No prevalence or incidence reported
- Klasen E C, Polanco I, Biemond I et al. alpha 1-Antitrypsin and coeliac disease in Spain. *Gut* 1980;21(11):948-950. No prevalence or incidence reported
- Klipstein F A, Beauchamp I, Corcino J J et al. Nutritional status and intestinal function among rural populations of the West Indies. II. Barrio Nuevo, Puerto Rico. *Gastroenterology* 1972;63(5):758-767. No prevalence or incidence reported
- Knivsberg A M. Urine patterns, peptide levels and IgA/IgG antibodies to food proteins in children with dyslexia. *Pediatr Rehabil* 1997;1(1):25-33. No prevalence or incidence reported
- Knudtson J, Fluge G, Aksnes L. Routine measurements of gluten antibodies in children of short stature. *J Pediatr Gastroenterol Nutr* 1991;12(2):190-194. No prevalence or incidence reported
- Kocak N, Varzikoglu M, Yuce A et al. Celiac disease in childhood: Analysis of 41 cases. *Turk J Gastroenterol* 1997;8(2):201-205. No prevalence or incidence reported
- Koch M B, Go V L, DiMagno E P. Can plasma human pancreatic polypeptide be used to detect diseases of the exocrine pancreas?. *Mayo Clin Proc* 1985;60(4):259-265. No prevalence or incidence reported
- Kocna Petr, Vanickova Zdislava, Perusicova Jindriska et al. Tissue transglutaminase-serology markers for coeliac disease. *Clinical Chemistry and Laboratory Medicine - Cclm / Fescc* 2002;40(5):485-492. No prevalence or incidence reported
- Koivisto V A, Kuitunen P, Tiilikainen A et al. HLA antigens in patients with juvenile diabetes mellitus, coeliac disease and both of the diseases. *Diabete Metab* 1977;3(1):49-53. No prevalence or incidence reported
- Koivisto V A, Kuitunen P, Tilikainen A et al. HLA antigens, especially B8 and BW15, in patients with juvenile diabetes mellitus, coeliac disease, and both of these diseases [proceedings]. *Diabete Metab* 1976;2(3):161 No prevalence or incidence reported
- Kokkonen J, Holm K, Karttunen T J et al. Children with untreated food allergy express a relative increment in the density of duodenal gammadeltaSUP+ T cells. *Scand J Gastroenterol* 2000;35(11):1137-1142. No prevalence or incidence reported
- Kokkonen J, Simila S, Vuolukka P. The incidence of coeliac disease and pyloric stenosis in children in

- Northern Finland. *Ann Clin Res* 1982;14(3):123-128. Serology screen <1990
- Kokkonen J. Lymphonodular hyperplasia on the duodenal bulb indicates food allergy in children. *Endoscopy* 1999;31(6):464-467. No prevalence or incidence reported
- Kolacek S, Petkovic I, Booth I W. Chromosome aberrations in coeliac and non-coeliac enteropathies. *Arch Dis Child* 1998;78(5):466-468. No prevalence or incidence reported
- Kolek A, Vospe caron, Her caron et al. Occurrence of coeliac disease in children with Down Syndrome in north Moravia, Czech Republic. *Eur J Pediatr* 2003;162(3):207-208. No prevalence or incidence reported
- Koletzko B. Complementary foods and the development of food allergy. *Pediatrics* 2000;106(5 II):1285-1286. No prevalence or incidence reported
- Koletzko S, Burgin-Wolff A, Koletzko B et al. Prevalence of coeliac disease in diabetic children and adolescents. A multicentre study. *Eur J Pediatr* 1988;148(2):113-117. Not a relevant screening geography
- Kolho K L, Tiitinen A, Tulppala M et al. Screening for coeliac disease in women with a history of recurrent miscarriage or infertility. *Br J Obstet Gynaecol* 1999;106(2):171-173. No prevalence or incidence reported
- Kolho K-L, Jusufovic J, Miettinen A et al. Parietal cell antibodies and *Helicobacter pylori* in children. *J Pediatr Gastroenterol Nutr* 2000;30(3):265-268. No prevalence or incidence reported
- Koning F. Celiac disease and malignancy: an immunological basis?. *J Pediatr Gastroenterol Nutr* 1997;24(5):S18-S19. No prevalence or incidence reported
- Kontakou M, Przemioslo R T, Sturgess R P et al. Expression of tumour necrosis factor-alpha, interleukin-6, and interleukin-2 mRNA in the jejunum of patients with coeliac disease. *Scand J Gastroenterol* 1995;30(5):456-463. No prevalence or incidence reported
- Konttinen S, Schlenzka A, Koskimies S et al. Autoantibodies and autoimmune diseases in young diabetics. *Diabetes Res* 1990;13(4):151-156. Serology screen <1990
- Konzen K M, Perrault J, Moir C et al. Long-term follow-up of young patients with chronic hereditary or idiopathic pancreatitis. *Mayo Clin Proc* 1993;68(5):449-453. No prevalence or incidence reported
- Korponay-Szabo I R, Dahlbom I, Laurila K et al. Elevation of IgG antibodies against tissue transglutaminase as a diagnostic tool for coeliac disease in selective IgA deficiency. *Gut* 2003;52(11):1567-1571. No prevalence or incidence reported
- Korponay-Szabo I R, Kovacs J B, Czinner A et al. High prevalence of silent celiac disease in preschool children screened with IgA/IgG antiendomysium antibodies. *J Pediatr Gastroenterol Nutr* 1999;28(1):26-30. Not a relevant screening geography
- Korponay-Szabo I R, Kovacs J B, Lorincz M et al. Prospective significance of antiendomysium antibody positivity in subsequently verified celiac disease. *J Pediatr Gastroenterol Nutr* 1997;25(1):56-63. No prevalence or incidence reported
- Kosnai I, Kuitunen P, Siimes M A. Iron deficiency in children with coeliac disease on treatment with gluten-free diet. Role of intestinal blood loss. *Arch Dis Child* 1979;54(5):375-378. No prevalence or incidence reported
- Kotaniemi-Syrjanen Anne, Reijonen Tiina M, Romppanen Jarkko et al. Allergen-specific immunoglobulin E antibodies in wheezing infants: the risk for asthma in later childhood. *Pediatrics* 2003;111(3):E255-E261. No prevalence or incidence reported
- Kowalska E, Wasowska-Krolikowska K, Toporowska-Kowalska E. Estimation of antithyroid antibodies occurrence in children with coeliac disease. *Medical Science Monitor - International Medical Journal of Experimental and Clinical Research* 2000;6(4):719-721. No prevalence or incidence reported
- Kowlessar O D, Phillips L D. Celiac disease. *Med Clin North Am* 1970;54(3):647-656. No prevalence or incidence reported
- Kristensen M, Lenz K, Nielsen O V et al. Short bowel syndrome following resection for Crohn's disease. *Scand J Gastroenterol* 1974;9(6):559-565. No prevalence or incidence reported
- Kristiansson B, Karlberg J, Fallstrom S P. Infants with low rate of weight gain. I. A study of organic factors and growth patterns. *Acta Paediatr Scand* 1981;70(5):655-662. No prevalence or incidence reported
- Kuc caron, Novakova D, Be caron et al. Gliadin, endomysial and thyroid antibodies in patients with latent autoimmune diabetes of adults (LADA). *Clin Exp Immunol* 2003;133(1):139-143. No prevalence or incidence reported
- Kucera P, Novakova D, Behanova M et al. Gliadin, endomysial and thyroid antibodies in patients with

- latent autoimmune diabetes of adults (LADA). *Clin Exp Immunol* 2003;133(1):139-143. No prevalence or incidence reported
- Kuitunen Mikael, Saukkonen Tero, Ilonen Jorma et al. Intestinal permeability to mannitol and lactulose in children with type 1 diabetes with the HLA-DQB1\*02 allele. *Autoimmunity* 2002;35(5):365-368. No prevalence or incidence reported
- Kuitunen P, Kosnai I, Savilahti E. Morphometric study of the jejunal mucosa in various childhood enteropathies with special reference to intraepithelial lymphocytes. *J Pediatr Gastroenterol Nutr* 1982;1(4):525-531. No prevalence or incidence reported
- Kulig M, Bergmann R, Niggemann B et al. Prediction of sensitization to inhalant allergens in childhood: evaluating family history, atopic dermatitis and sensitization to food allergens. The MAS Study Group. *Multicentre Allergy Study. Clinical and Experimental Allergy - Journal of the British Society for Allergy and Clinical Immunology* 1998;28(11):1397-1403. No prevalence or incidence reported
- Kulig M, Bergmann R, Tacke U et al. Long-lasting sensitization to food during the first two years precedes allergic airway disease. The MAS Study Group, Germany. *Pediatric Allergy and Immunology - Official Publication of the European Society of Pediatric Allergy and Immunology* 1998;9(2):61-67. No prevalence or incidence reported
- Kull K, Uibo O, Salupere R et al. High frequency of anti-gliadin antibodies and absence of antireticulin and antiendomysium antibodies in patients with ulcerative colitis. *J Gastroenterol* 1999;34(1):61-65. No prevalence or incidence reported
- Kumar P J, Walker-Smith J, Milla P et al. The teenage coeliac: follow up study of 102 patients. *Arch Dis Child* 1988;63(8):916-920. No prevalence or incidence reported
- Kumar P J. European and North American populations should be screened for coeliac disease. *Gut* 2003;52(2):170-171. No prevalence or incidence reported
- Kumar P, Bartram C I. Relevance of the barium follow-through examination in the diagnosis of adult celiac disease. *Gastrointest Radiol* 1979;4(3):285-289. No prevalence or incidence reported
- Kumar P, Clark M. Primary biliary cirrhosis and coeliac disease. Is there an association?. *Digestive and Liver Disease - Official Journal of the Italian Society of Gastroenterology and the Italian Association for the Study of the Liver* 2002;34(4):248-250. No prevalence or incidence reported
- Kumar R, Lumsden A, Ciclitira P J et al. Human genome search in celiac disease using gliadin cDNA as probe. *J Mol Biol* 2000;300(5):1155-1167. No prevalence or incidence reported
- Kumar Rajesh, Eastwood Amy L, Brown Milton L et al. Human genome search in celiac disease: mutated gliadin T-cell-like epitope in two human proteins promotes T-cell activation. *J Mol Biol* 2002;319(3):593-602. No prevalence or incidence reported
- Kumar V, Lerner A, Valeski J E et al. Endomysial antibodies in the diagnosis of celiac disease and the effect of gluten on antibody titers. *Immunol Invest* 1989;18(1-4):533-544. No prevalence or incidence reported
- Kumar V, Rajadhyaksha M, Wortsman J. Celiac disease-associated autoimmune endocrinopathies. *Clin Diagn Lab Immunol* 2001;8(4):678-685. No prevalence or incidence reported
- Kuscu N K, Akcali S, Kucukmetin N T. Celiac disease and polycystic ovary syndrome. *International Journal of Gynaecology and Obstetrics- the Official Organ of the International Federation of Gynaecology and Obstetrics* 2002;79(2):149-150. No prevalence or incidence reported
- La Seta F, Salerno G, Buccellato A et al. Radiographic indicators of adult celiac disease assessed by double-contrast small bowel enteroclysis. *Eur J Radiol* 1992;15(2):157-162. No prevalence or incidence reported
- Labate A, Gambardella A, Messina D et al. Silent celiac disease in patients with childhood localization-related epilepsies. *Epilepsia* 2001;42(9):1153-1155. No prevalence or incidence reported
- Lad R, Jacobson K. The changing face of celiac disease. *Paediatr Child Health* 2001;6(9):644-651. No prevalence or incidence reported
- Laghi A, Paolantonio P, Catalano C et al. Original report. MR imaging of the small bowel using polyethylene glycol solution as an oral contrast agent in adults and children with celiac disease: Preliminary observations. *Am J Roentgenol* 2003;180(1):191-194. No prevalence or incidence reported
- Lahat E, Broide E, Leshem M et al. Prevalence of celiac antibodies in children with neurologic disorders. *Pediatr Neurol* 2000;22(5):393-396. No prevalence or incidence reported
- Lahdeaho M L, Lehtinen M, Rissa H R et al. Antipeptide antibodies to adenovirus E1b protein indicate enhanced risk of celiac disease and dermatitis herpetiformis. *Int Arch Allergy Immunol*

1993;101(3):272-276. No prevalence or incidence reported

Lakatos L, Pandur T, David G et al. Association of extraintestinal manifestations of inflammatory bowel disease in a province of western Hungary with disease phenotype: Results of a 25-year follow-up study. *World J Gastroenterol* 2003;9(10):2300-2307. No prevalence or incidence reported

Lampasona V, Bazzigaluppi E, Barera G et al. Tissue transglutaminase and combined screening for coeliac disease and type 1 diabetes-associated autoantibodies. *Lancet* 1998;352(9135):1192-1193. No prevalence or incidence reported

Lancaster Smith M J, Perrin J, Swarbrick E T et al. Coeliac disease and autoimmunity. *Postgrad Med J* 1974;50(579):45-48. No prevalence or incidence reported

Langman M J, Banwell J G, Stewart J S et al. ABO blood groups, secretor status, and intestinal alkaline phosphatase concentrations in patients with coeliac disease. *Gastroenterology* 1969;57(1):19-23. No prevalence or incidence reported

Langman M J, McConnell T H, Spiegelhalter D J et al. Changing patterns of coeliac disease frequency: an analysis of Coeliac Society membership records. *Gut* 1985;26(2):175-178. No prevalence or incidence reported

Langman M J. Can epidemiology help us prevent coeliac disease?. *Gastroenterology* 1986;90(2):489-491. No prevalence or incidence reported

Langman M J. Epidemiology of cancer of the oesophagus and stomach. *Br J Surg* 1971;58(10):792-793. No prevalence or incidence reported

Langman M J. Recent changes in the patterns of chronic digestive disease in the United Kingdom. *Postgrad Med J* 1984;60(709):733-736. No prevalence or incidence reported

Lang-Muritano M, Molinari L, Dommann-Scherrer C et al. Incidence of enteropathy-associated T-cell lymphoma in coeliac disease: Implications for children and adolescents with type 1 diabetes. *Pediatr Diabetes* 2002;3(1):42-45. No prevalence or incidence reported

Lankisch P G, Martinez Schramm A, Petersen F et al. Diagnostic intervals for recognizing coeliac disease. *Z Gastroenterol* 1996;34(8):473-477. No prevalence or incidence reported

Lanning M, Kouvalainen K, Simila S et al. Agammaglobulinemia with arthritis and coeliac disease developing after infectious mononucleosis. Follow up study of a case. *Scand J Infect Dis* 1977;9(2):144-148. No prevalence or incidence reported

Larizza D, Calcaterra V, De Giacomo C et al. Celiac disease in children with autoimmune thyroid disease. *Eur J Pediatr* 2001;139(5):738-740. No prevalence or incidence reported

Larizza D, Calcaterra V, Luinetti O et al. Evidence for immunogenetic predisposition in children with coeliac disease and autoimmune thyroid disease. *Int J Med Biol Environ* 2001;29(2):143-148. No prevalence or incidence reported

Larizza D, Locatelli M, Vitali L et al. Serum liver enzymes in Turner syndrome. *Eur J Pediatr* 2000;159(3):143-148. No prevalence or incidence reported

Laron Z, Kiess W, Phillip M. Foreword. *Journal of Pediatric Endocrinology & Metabolism - Jpem* 2001;14(Suppl 1):571. No prevalence or incidence reported

Larrick J W. The polymerase chain reaction: A novel method for the study of mutation and polymorphism in the human population. *Clin Ecol* 1987;5(4):159-165. No prevalence or incidence reported

Lasch E E, Ramot B, Neumann G. Childhood coeliac disease in Israel. Epidemiological aspects. *Isr J Med Sci* 1968;4(6):1260-1264. Not a relevant screening geography

Laurin P, Falth-Magnusson K, Sundqvist T. Increase in nitric oxide urinary products during gluten challenge in children with coeliac disease. *Scand J Gastroenterol* 2003;38(1):55-60. No prevalence or incidence reported

Lawrence J S. Hypogammaglobulinaemia in the United Kingdom. IV. Rheumatic disease in hypogammaglobulinaemia patients and their relatives. *Special Report Series..Medical Research Council (Great Britain)* 1971;31035-44. No prevalence or incidence reported

Le Clainche L, Le Bourgeois M, Fauroux B et al. Long-term outcome of idiopathic pulmonary hemosiderosis in children. *Medicine* 2000;79(5):318-326. No prevalence or incidence reported

Le Quellec A, Clapie M, Callamand P et al. Circulating oxymodulin-like immunoreactivity in healthy children and children with coeliac disease. *J Pediatr Gastroenterol Nutr* 1998;27(5):513-518. No prevalence or incidence reported

Lebenthal E, Branski D. Childhood coeliac disease: A reappraisal. *Eur J Pediatr* 1981;98(5):681-690. No prevalence or incidence reported

Lebenthal Emanuel, Branski David. Coeliac disease: an emerging global problem. *J Pediatr Gastroenterol Nutr*

- 2002;35(4):472-474. No prevalence or incidence reported
- Lee F I, Prior J, Murray S M. Celiac disease in monozygous twin boys. Asynchronous presentation. *Dig Dis Sci* 1982;27(12):1137-1140. No prevalence or incidence reported
- Lee J K, Marcos H B, Semelka R C. MR imaging of the small bowel using the HASTE sequence. *Ajr.American Journal of Roentgenology* 1998;170(6):1457-1463. No prevalence or incidence reported
- Lee M F. The diagnosis of steatorrhea in outpatients. *Br J Surg* 1970;57(5):387-388. No prevalence or incidence reported
- Lee Susie K, Lo Winson, Memeo Lorenzo et al. Duodenal histology in patients with celiac disease after treatment with a gluten-free diet. *Gastroenterol Int* 2003;57(2):187-191. No prevalence or incidence reported
- Leech S. Molecular mimicry in autoimmune disease. *Arch Dis Child* 1998;79(5):448-451. No prevalence or incidence reported
- Lehto M, Palosuo K, Varjonen E et al. Humoral and cellular responses to gliadin in wheat-dependent, exercise-induced anaphylaxis. *Clinical and Experimental Allergy - Journal of the British Society for Allergy and Clinical Immunology* 2003;33(1):90-95. No prevalence or incidence reported
- Lejarraga H, Caino S, Salvador A et al. Normal growth velocity before diagnosis of celiac disease. *J Pediatr Gastroenterol Nutr* 2000;30(5):552-556. No prevalence or incidence reported
- Lembcke B, Schneider H, Lankisch P G. Is the assay of disaccharidase activity in small bowel mucosal biopsy relevant for clinical gastroenterologists?. *Klin Wochenschr* 1989;67(11):568-575. No prevalence or incidence reported
- Lemieux B, Boivin M, Brossard J H et al. Normal parathyroid function with decreased bone mineral density in treated celiac disease. *Can J Gastroenterol* 2001;15(5):302-307. No prevalence or incidence reported
- Lenander-Lumikari M, Ihalin R, Lahteenoja H. Changes in whole saliva in patients with coeliac disease. *Arch Oral Biol* 2000;45(5):347-354. No prevalence or incidence reported
- Leon F, Camarero C, Pena R et al. Anti-transglutaminase IgA ELISA: clinical potential and drawbacks in celiac disease diagnosis. *Scand J Gastroenterol* 2001;36(8):849-853. No prevalence or incidence reported
- Leonard J N, Tucker W F, Fry J S et al. Increased incidence of malignancy in dermatitis herpetiformis. *Br Med J (Clin Res Ed)* 1983;286(6358):16-18. No prevalence or incidence reported
- Lepage V, Lamm L U, Charron D. Molecular aspects of HLA class II and some autoimmune diseases. *European Journal of Immunogenetics - Official Journal of the British Society for Histocompatibility and Immunogenetics* 1993;20(3):153-164. No prevalence or incidence reported
- Lepore L, Martelossi S, Pennesi M et al. Prevalence of celiac disease in patients with juvenile chronic arthritis. *Eur J Pediatr* 1996;129(2):311-313. No prevalence or incidence reported
- Lepore L, Pennesi M, Ventura A et al. Anti-alpha-gliadin antibodies are not predictive of celiac disease in juvenile chronic arthritis. *Acta Paediatr* 1993;82(6-7):569-573. No prevalence or incidence reported
- Lerner A, Blank M, Lahat N et al. Increased prevalence of autoantibodies in celiac disease. *Dig Dis Sci* 1998;43(4):723-726. No prevalence or incidence reported
- Lerner A. Factors affecting the clinical presentation and time of diagnosis of celiac disease: the Jerusalem and the West Bank-Gaza experience. *Isr J Med Sci* 1994;30(4):294-295. No prevalence or incidence reported
- Leslie D, Lipsky P, Louis Notkins A. Autoantibodies as predictors of disease. *J Clin Invest* 2001;108(10):1417-1422. No prevalence or incidence reported
- Lesort M, Chun W, Johnson G V et al. Tissue transglutaminase is increased in Huntington's disease brain. *J Neurochem* 1999;73(5):2018-2027. No prevalence or incidence reported
- Lesort M, Tucholski J, Miller M L et al. Tissue transglutaminase: a possible role in neurodegenerative diseases. *Prog Neurobiol* 2000;61(5):439-463. No prevalence or incidence reported
- Lesort Mathieu, Chun WanJoo, Tucholski Janusz et al. Does tissue transglutaminase play a role in Huntington's disease?. *Neurochem Int* 2002;40(1):37-52. No prevalence or incidence reported
- Leth R D, Abrahamsson H, Kilander A et al. Malabsorption of fat after partial gastric resection. A study of pathophysiologic mechanisms. *Eur J Surg* 1991;157(3):205-208. No prevalence or incidence reported
- Levin D C, Baltaxe H A. High incidence of celiac axis narrowing in asymptomatic individuals. *Am J*

- Roentgenol Radium Ther Nucl Med 1972;116(2):426-429. No prevalence or incidence reported
- Levine A, Bujanover Y, Reif S et al. Comparison of assays for anti-endomysial and anti-transglutaminase antibodies for diagnosis of pediatric celiac disease. Israel Medical Association Journal - Imaj 2000;2(2):122-125. No prevalence or incidence reported
- Levine A, Lahav J, Zahavi I et al. Activated protein C resistance in pediatric inflammatory bowel disease. J Pediatr Gastroenterol Nutr 1998;26(2):172-174. No prevalence or incidence reported
- Lewis W H, Imber W E. Allergy epidemiology in the St. Louis, Missouri, area. V. Cereal ingestants. Ann Allergy 1975;35(4):251-254. No prevalence or incidence reported
- Lie B A, Sollid L M, Ascher H et al. A gene telomeric of the HLA class I region is involved in predisposition to both type 1 diabetes and coeliac disease. Tissue Antigens 1999;54(2):162-168. No prevalence or incidence reported
- Lifschitz C H, Polanco I, Lobb K. The urinary excretion of polyethylene glycol as a test for mucosal integrity in children with celiac disease: comparison with other noninvasive tests. J Pediatr Gastroenterol Nutr 1989;9(1):49-57. No prevalence or incidence reported
- Lifshitz F, Tarim O. Nutritional dwarfing. Curr Probl Pediatr 1993;23(8):322-336. No prevalence or incidence reported
- Lightdale C J, Winawer S J. Screening diagnosis and staging of esophageal cancer. Semin Oncol 1984;11(2):101-112. No prevalence or incidence reported
- Lim S G, Menzies I S, Lee C A et al. Intestinal permeability and function in patients infected with human immunodeficiency virus. A comparison with coeliac disease. Scand J Gastroenterol 1993;28(7):573-580. No prevalence or incidence reported
- Lin H J, Rotter J I, Conte W J. Use of HLA marker associations and HLA haplotype linkage to estimate disease risks in families with gluten-sensitive enteropathy. Clin Genet 1985;28(3):185-198. No prevalence or incidence reported
- Lindberg J, Ahren C, Iwarson S. Intestinal villous atrophy in chronic active hepatitis. Scand J Gastroenterol 1979;14(8):1015-1018. No prevalence or incidence reported
- Lindblad A, Glaumann H, Strandvik B. Natural history of liver disease in cystic fibrosis. Hepatology 1999;30(5):1151-1158. No prevalence or incidence reported
- Linder J, Cheruvattath R, Truss C et al. Diagnostic yield and clinical implications of push enteroscopy: Results from a nonspecialized center. J Clin Gastroenterol 2002;35(5):383-386. No prevalence or incidence reported
- Lindgren S, Sjoberg K, Eriksson S. Unsuspected coeliac disease in chronic 'cryptogenic' liver disease. Scand J Gastroenterol 1994;29(7):661-664. No prevalence or incidence reported
- Lindquist B L, Rogozinski T, Moi H et al. Endomysium and gliadin IgA antibodies in children with coeliac disease. Scand J Gastroenterol 1994;29(5):452-456. No prevalence or incidence reported
- Lindqvist U, Rudsander A, Bostrom A et al. IgA antibodies to gliadin and coeliac disease in psoriatic arthritis. Rheumatology (Oxford) 2002;41(1):31-37. No prevalence or incidence reported
- Little A-M, Stern P L. Does HLA type predispose some individuals to cancer?. Mol Med Today 1999;5(8):337-342. No prevalence or incidence reported
- Little T M. Immunoglobulin levels in families with coeliac disease. Lancet 1972;2(7774):400-401. No prevalence or incidence reported
- Littlewood J M. Coeliac disease in childhood. Bailliere's Clinical Gastroenterology 1995;9(2):295-327. No prevalence or incidence reported
- Liu A H, Murphy J R. Hygiene hypothesis: Fact or fiction?. J Allergy Clin Immunol 2003;111(3):471-478. No prevalence or incidence reported
- Liu E, Bao F, Barriga K et al. Fluctuating transglutaminase autoantibodies are related to histologic features of celiac disease. Clin Gastroenterol Hepatol 2003;1(5):356-362. No prevalence or incidence reported
- Liu Edwin, Eisenbarth George S. Type 1A diabetes mellitus-associated autoimmunity. Endocrinol Metab Clin North Am 2002;31(2):391-410. Vii. No prevalence or incidence reported
- Liu Jianjun, Juo Suh, Holopainen Paivi et al. Genomewide linkage analysis of celiac disease in Finnish families. Am J Hum Genet 2002;70(1):51-59. No prevalence or incidence reported
- Ljungman G, Myrdal U. Compliance in teenagers with coeliac disease--a Swedish follow-up study. Acta Paediatr 1993;82(3):235-238. No prevalence or incidence reported

- Lloyd J K. Dietary problems associated with the care of chronically sick children. *J Hum Nutr* 1979;33(2):135-139. No prevalence or incidence reported
- Lloyd J K. Effects and treatment of malabsorption in childhood. *Proc Nutr Soc* 1972;31(1):61-66. No prevalence or incidence reported
- Lloyd-Still J D, Shwachman H. Duodenal microflora: a prospective study in pediatric gastrointestinal disorders. *Am J Dig Dis* 1975;20(8):708-715. No prevalence or incidence reported
- Lloyd-Still J D. Chronic diarrhea of childhood and the misuse of elimination diets. *Eur J Pediatr* 1979;95(1):10-13. No prevalence or incidence reported
- Lloyd-Still J D. Where have all the celiacs gone?. *Pediatrics* 1978;61(6):929-930. No prevalence or incidence reported
- Lo Winson, Sano Kevin, Lebwohl Ben et al. Changing presentation of adult celiac disease. *Dig Dis Sci* 2003;48(2):395-398. No prevalence or incidence reported
- Lofgren J, Jarnerot G, Danielsson D et al. Incidence and prevalence of primary biliary cirrhosis in a defined population in Sweden. *Scand J Gastroenterol* 1985;20(5):647-650. No prevalence or incidence reported
- Loft D E, Marsh M N, Crowe P T. Rectal gluten challenge and diagnosis of coeliac disease. *Lancet* 1990;335(8701):1293-1295. No prevalence or incidence reported
- Loft D E. The epidemiology and diagnosis of coeliac disease. *Eur J Gastroenterol Hepatol* 1993;5(2):69-72. No prevalence or incidence reported
- Logan J S. The relation of meat-eating to the incidence and severity of sprue and the relation of sprue to diarrhoea in the United Kingdom. *Ulster Med J* 1971;40(2):151-157. No prevalence or incidence reported
- Logan R F, Rifkind E A, Busuttill A et al. Prevalence and "incidence" of celiac disease in Edinburgh and the Lothian region of Scotland. *Gastroenterology* 1986;90(2):334-342. Serology screen <1990
- Logan R F, Rifkind E A, Turner I D et al. Mortality in celiac disease. *Gastroenterology* 1989;97(2):265-271. No prevalence or incidence reported
- Logan R F, Tucker G, Rifkind E A et al. Changes in clinical features of coeliac disease in adults in Edinburgh and the Lothians 1960-79. *Br Med J (Clin Res Ed)* 1983;286(6359):95-97. Serology screen <1990
- Logan R F. Screening for coeliac disease--has the time come for mass screening?. *Acta Paediatr* 1996;412(Suppl):15-19. No prevalence or incidence reported
- Lohiniemi S, Maki M, Kaukinen K et al. Gastrointestinal symptoms rating scale in coeliac disease patients on wheat starch-based gluten-free diets. *Scand J Gastroenterol* 2000;35(9):947-949. No prevalence or incidence reported
- Lomoschitz F, Schima W, Schober E et al. Enteroclysis in adult celiac disease: diagnostic value of specific radiographic features. *Eur Radiol* 2002;13(4):890-896. No prevalence or incidence reported
- Londei M. The external world of gluten and autoimmunity. *Gut* 2001;49(4):463-464. No prevalence or incidence reported
- Long R G, Wills M R. Hepatic osteodystrophy. *Br J Hosp Med* 1978;20(3):312-321. No prevalence or incidence reported
- Lonnerdal B, Dewey K G. Epidemiology of iron deficiency in infants and children. *Ann Nestle* 1995;53(1):11-17. No prevalence or incidence reported
- Lopez-Vazquez A, Rodrigo L, Fuentes D et al. MHC class I chain related gene A (MICA) modulates the development of coeliac disease in patients with the high risk heterodimer DQA1\*0501/DQB1\*0201. *Gut* 2002;50(3):336-340. No prevalence or incidence reported
- Lopez-Vazquez Antonio, Rodrigo Luis, Fuentes Dolores et al. MICA-A5.1 allele is associated with atypical forms of celiac disease in HLA-DQ2-negative patients. *Immunogenetics* 2002;53(10-11):989-991. No prevalence or incidence reported
- Lorber M, Gershwin M E, Shoenfeld Y. The coexistence of systemic lupus erythematosus with other autoimmune diseases: The kaleidoscope of autoimmunity. *Semin Arthritis Rheum* 1994;24(2):105-113. No prevalence or incidence reported
- Lorini R, Scaramuzza A, Vitali L et al. Clinical aspects of coeliac disease in children with insulin-dependent diabetes mellitus. *Journal of Pediatric Endocrinology & Metabolism - Jpem* 1996;9(Suppl 1):101-111. No prevalence or incidence reported
- Louis E J, Thomson G, Payami H. The affected sib method. II. The intermediate model. *Ann Hum Genet*

1983;47(3):225-243. No prevalence or incidence reported

Louka A S, Moodie S J, Karell K et al. A collaborative European search for non-DQA1 \*05-DQB1 \*02 Celiac disease loci on HLA-Dr3 haplotypes: Analysis of transmission from homozygous parents. *Hum Immunol* 2003;64(3):350-358. No prevalence or incidence reported

Louka A S, Nilsson S, Olsson M et al. HLA in coeliac disease families: a novel test of risk modification by the 'other' haplotype when at least one DQA1\*05-DQB1\*02 haplotype is carried. *Tissue Antigens* 2002;60(2):147-154. No prevalence or incidence reported

Louka A S, Stensby E K, Ek J et al. Coeliac disease candidate genes: no association with functional polymorphisms in matrix metalloproteinase 1 and 3 gene promoters. *Scand J Gastroenterol* 2002;37(8):931-935. No prevalence or incidence reported

Louka A S, Torinsson Naluai A, D'Alfonso S et al. The IL12B gene does not confer susceptibility to coeliac disease. *Tissue Antigens* 2002;59(1):70-72. No prevalence or incidence reported

Lowenstein H, Krasilnikoff P A, Bjerrum O J et al. Occurrence of specific precipitins against bovine whey proteins in serum from children with gastrointestinal disorders. *Int Arch Allergy Appl Immunol* 1977;55(1-6):514-525. No prevalence or incidence reported

Lubrano E, Ciacci C, Ames P R J et al. The arthritis of coeliac disease: Prevalence and pattern in 200 adult patients. *Br J Rheumatol* 1996;35(12):1314-1318. No prevalence or incidence reported

Ludvigsson J F, Falth-Magnusson K, Ludvigsson J. Tissue transglutaminase auto-antibodies in cord blood from children to become celiacs. *Scand J Gastroenterol* 2001;36(12):1279-1283. No prevalence or incidence reported

Ludvigsson J F, Ludvigsson J. Coeliac disease in the father affects the newborn. *Gut* 2001;49(2):169-175. No prevalence or incidence reported

Ludvigsson J F, Ludvigsson J. Stressful life events, social support and confidence in the pregnant woman and risk of coeliac disease in the offspring. *Scand J Gastroenterol* 2003;38(5):516-521. No prevalence or incidence reported

Ludvigsson J F. Effect of gastroenteritis during pregnancy on neonatal outcome. *European Journal of Clinical Microbiology & Infectious Diseases - Official Publication of the European Society of Clinical Microbiology* 2001;20(12):843-849. No prevalence or incidence reported

Luostarinen L K, Collin P O, Peraaho M J et al. Coeliac disease in patients with cerebellar ataxia of unknown origin. *Ann Med* 2001;33(6):445-449. No prevalence or incidence reported

Luostarinen L, Dastidar P, Collin P et al. Association between coeliac disease, epilepsy and brain atrophy. *Eur Neurol* 2001;46(4):187-191. No prevalence or incidence reported

Luostarinen L, Himanen S-L, Luostarinen M et al. Neuromuscular and sensory disturbances in patients with well treated coeliac disease. *J Neurol Neurosurg Psychiatry* 2003;74(4):490-494. No prevalence or incidence reported

Luostarinen L, Pirttila T, Collin P. Coeliac disease presenting with neurological disorders. *Eur Neurol* 1999;42(3):132-135. No prevalence or incidence reported

Lutwak L. Symposium on osteoporosis. Nutritional aspects of osteoporosis. *J Am Geriatr Soc* 1969;17(2):115-119. No prevalence or incidence reported

Luzi Giuseppe, Zullo Angelo, Iebba Filippo et al. Duodenal pathology and clinical-immunological implications in common variable immunodeficiency patients. *Am J Gastroenterol* 2003;98(1):118-121. No prevalence or incidence reported

Luzza F, Mancuso M, Imeneo M et al. Helicobacter pylori infection in children with celiac disease: prevalence and clinicopathologic features. *J Pediatr Gastroenterol Nutr* 1999;28(2):143-146. No prevalence or incidence reported

Lynch H T, Smyrk T C, Lynch P M et al. Adenocarcinoma of the small bowel in lynch syndrome II. *Cancer* 1989;64(10):2178-2183. No prevalence or incidence reported

MacFarlane Amanda J, Burghardt Karolina M, Kelly John et al. A type 1 diabetes-related protein from wheat (*Triticum aestivum*). cDNA clone of a wheat storage globulin, G1b1, linked to islet damage. *J Biol Chem* 2002;278(1):54-63. No prevalence or incidence reported

Mackay I R, Morris P J. Association of autoimmune active chronic hepatitis with HL-A1,8. *Lancet* 1972;2(7781):793-795. No prevalence or incidence reported

Mackey J, Treem W R, Worley G et al. Frequency of celiac disease in individuals with Down syndrome in the United States. *Clin Pediatr (Phila)* 2001;40(5):249-252. Not a relevant screening group

- Mackner L M, McGrath A M, Stark L J. Dietary recommendations to prevent and manage chronic pediatric health conditions: Adherence, intervention, and future directions. *J Dev Behav Pediatr* 2001;22(2):130-143. No prevalence or incidence reported
- Mader R, Adawi M, Schonfeld S. Malabsorption in systemic lupus erythematosus. *Clin Exp Rheumatol* 1997;15(6):659-661. No prevalence or incidence reported
- Madsen C. Prevalence of food allergy/intolerance in Europe. *Environ Toxicol Pharmacol* 1997;4(1-2):163-167. No prevalence or incidence reported
- Magalotti D, Volta U, Bonfiglioli A et al. Splanchnic haemodynamics in patients with coeliac disease: effects of a gluten-free diet. *Digestive and Liver Disease - Official Journal of the Italian Society of Gastroenterology and the Italian Association for the Study of the Liver* 2003;35(4):262-268. No prevalence or incidence reported
- Magnolfi C F, Zani G, Lacava L et al. Soy allergy in atopic children. *Annals of Allergy, Asthma & Immunology - Official Publication of the American College of Allergy, Asthma, & Immunology* 1996;77(3):197-201. No prevalence or incidence reported
- Magrath G, Hartland B V. Dietary recommendations for children and adolescents with diabetes: An implementation paper. *J Hum Nutr Diet* 1993;6(6):491-507. No prevalence or incidence reported
- Magrath G, Hartland B V. Dietary recommendations for children and adolescents with diabetes: an implementation paper. *British Diabetic Association's Professional Advisory Committee. Diabetic Medicine - a Journal of the British Diabetic Association* 1993;10(9):874-885. No prevalence or incidence reported
- Mahadeva S, Wyatt J I, Howdle P D. Is a raised intraepithelial lymphocyte count with normal duodenal villous architecture clinically relevant?. *J Clin Pathol* 2002;55(6):424-428. No prevalence or incidence reported
- Mainardi Elsa, Montanelli Alessandro, Dotti Maria et al. Thyroid-related autoantibodies and celiac disease: a role for a gluten-free diet?. *J Clin Gastroenterol* 2002;35(3):245-248. No prevalence or incidence reported
- Maki M, Aine L, Lipsanen V et al. Dental enamel defects in first-degree relatives of coeliac disease patients. *Lancet* 1991;337(8744):763-764. No prevalence or incidence reported
- Maki M, Collin P. Coeliac disease. *Lancet* 1997;349(9067):1755-1759. No prevalence or incidence reported
- Maki M, Hallstrom O, Huupponen T et al. Increased prevalence of coeliac disease in diabetes. *Arch Dis Child* 1984;59(8):739-742. Serology screen <1990
- Maki M, Huupponen T, Holm K et al. Seroconversion of reticulin autoantibodies predicts coeliac disease in insulin dependent diabetes mellitus. *Gut* 1995;36(2):239-242. Not a relevant screening test
- Mallas E G, Williamson N, Cooper B T et al. IgA class reticulin antibodies in relatives of patients with coeliac disease. *Gut* 1977;18(8):647-650. Serology screen <1990
- Mallet M. Coeliac disease in the very elderly. *Cme J Geriatr Med* 2002;4(2):70-73. Review article
- Maluenda C, Phillips A D, Briddon A et al. Quantitative analysis of small intestinal mucosa in cow's milk-sensitive enteropathy. *J Pediatr Gastroenterol Nutr* 1984;3(3):349-356. No prevalence or incidence reported
- Mandal A, Mayberry J. How common is celiac disease in South America?. *Am J Gastroenterol* 2000;95(3):579-580. No prevalence or incidence reported
- Mann N S, Mann S K. Celiac sprue and diabetes mellitus. *J Clin Gastroenterol* 1993;16(1):4-5. No prevalence or incidence reported
- Mannell A, van Heerden J A, Weiland L H et al. Factors influencing survival after resection for ductal adenocarcinoma of the pancreas. *Ann Surg* 1986;203(4):403-407. No prevalence or incidence reported
- Mannion A, Stevens F M, McCarthy C F et al. Extended major histocompatibility complex haplotypes in celiac patients in the west of Ireland. *Am J Med Genet* 1993;45(3):373-377. No prevalence or incidence reported
- Mantovani V, Corazza G R, Bragliani M et al. Asp57-negative HLA DQ beta chain and DQA1\*0501 allele are essential for the onset of DQw2-positive and DQw2-negative coeliac disease. *Clin Exp Immunol* 1993;91(1):153-156. No prevalence or incidence reported
- Mantovani V, Corazza G R, Frisoni M et al. HLA-DP polymorphism in northern Italian celiac patients. *Tissue Antigens* 1992;40(4):182-186. No prevalence or incidence reported
- Mariani P, Mazzilli M C, Margutti G et al. Coeliac disease, enamel defects and HLA typing. *Acta*

- Paediatr 1994;83(12):1272-1275. No prevalence or incidence reported
- Mariani P, Viti M G, Montuori M et al. The gluten-free diet: a nutritional risk factor for adolescents with celiac disease?. *J Pediatr Gastroenterol Nutr* 1998;27(5):519-523. No prevalence or incidence reported
- Marin G A, Clark M L, Senior J R. Studies of malabsorption occurring in patients with Laennec's cirrhosis. *Gastroenterology* 1969;56(4):727-736. No prevalence or incidence reported
- Marks D R, Marks L M. Food allergy: Manifestations, evaluation, and management. *Postgrad Med* 1993;93(2):191-196+201. No prevalence or incidence reported
- Marks I N, Bank S, Louw J H. Chronic pancreatitis in the Western Cape. *Digestion* 1973;9(5):447-453. No prevalence or incidence reported
- Marks J, Shuster S. Iron metabolism in skin disease. *Arch Dermatol* 1968;98(5):469-475. No prevalence or incidence reported
- Marks J, Shuster S. Vitamin B12 excretion in patients with various skin diseases. *Br Med J* 1970;3(723):618-621. No prevalence or incidence reported
- Marn C S, Gore R M, Ghahremani G G. Duodenal manifestations of nontropical sprue. *Gastrointest Radiol* 1986;11(1):30-35. No prevalence or incidence reported
- Marsh M N, Bjarnason I, Shaw J et al. Studies of intestinal lymphoid tissue. XIV--HLA status, mucosal morphology, permeability and epithelial lymphocyte populations in first degree relatives of patients with coeliac disease. *Gut* 1990;31(1):32-36. No prevalence or incidence reported
- Marsh M N, Mathan M, Mathan V I. Studies of intestinal lymphoid tissue. VII. The secondary nature of lymphoid cell "activation" in the jejunal lesion of tropical sprue. *Am J Pathol* 1983;112(3):302-312. No prevalence or incidence reported
- Marsh M N. Screening for latent gluten sensitivity: questions many, but answers few. *Eur J Gastroenterol Hepatol* 1996;8(1):3-6. No prevalence or incidence reported
- Marsh M N. Studies of intestinal lymphoid tissue. XI--The immunopathology of cell-mediated reactions in gluten sensitivity and other enteropathies. *Scanning Microsc* 1988;2(3):1663-1684. No prevalence or incidence reported
- Marsh M N. The immunopathology of the small intestinal reaction in gluten-sensitivity. *Immunol Invest* 1989;18(1-4):509-531. No prevalence or incidence reported
- Marshall C M, Grunow J E. Emesis in infants as a consequence of feedings. *Semin Pediatr Surg* 1995;4(3):147-151. No prevalence or incidence reported
- Martelossi S, Zanatta E, Del Santo E et al. Dental enamel defects and screening for coeliac disease. *Acta Paediatr* 1996;412(Suppl):47-48. No prevalence or incidence reported
- Martinelli P, Troncone R, Paparo F et al. Coeliac disease and unfavourable outcome of pregnancy. *Gut* 2000;46(3):332-335. No prevalence or incidence reported
- Martinetti M, De Silvestri A, Belloni C et al. Humoral response to recombinant hepatitis B virus vaccine at birth: Role of HLA and beyond. *Clin Immunol* 2000;97(3):234-240. No prevalence or incidence reported
- Martini Silvia, Mengozzi Giulio, Aimo Giuseppe et al. Comparative evaluation of serologic tests for celiac disease diagnosis and follow-up. *Clin Chem* 2002;48(6 Pt 1):960-963. No prevalence or incidence reported
- Martin-Villa J M, Lopez-Suarez J C, Perez-Blas M et al. Coeliac- and enteropathy-associated autoantibodies in Spanish insulin-dependent diabetes mellitus patients and their relation to HLA antigens. *J Diabetes Complications* 2001;15(1):38-43. No prevalence or incidence reported
- Martucci S, Biagi F, Di Sabatino A et al. Coeliac disease. *Digestive and Liver Disease - Official Journal of the Italian Society of Gastroenterology and the Italian Association for the Study of the Liver* 2002;34(Suppl 2):150-153. No prevalence or incidence reported
- Masala S, Annibale B, Fiori R et al. DXA vs. QCT for subclinical celiac disease patients. *Acta Diabetol Lat* 2003;40(Suppl 1):S174-S176. No prevalence or incidence reported
- Masoero G, Andriulli A, Santini B et al. Serum trypsinlike immunoreactivity in cystic fibrosis. An aid in assessing progressive involvement of the pancreas. *Am J Dis Child* 1983;137(2):167-170. No prevalence or incidence reported
- Matek Z, Jungvirth-Hegedus M, Kolacek S. Epidemiology of coeliac disease in children in one Croatian county: possible factors that could affect the incidence of coeliac disease and adherence to a gluten-free diet (Part II). *Coll Antropol* 2000;24(2):397-404. Not a relevant screening geography

- Matek Z, Jungvirth-Hegedus M, Kolacek S. Epidemiology of coeliac disease in children in one Croatian county: the cumulative incidence over ten-year period and the way of clinical presentation (Part I). *Coll Antropol* 1999;23(2):621-628. Not a relevant screening geography
- Mathan V I, Baker S J. Epidemic tropical sprue and other epidemics of diarrhea in South Indian villages. *Am J Clin Nutr* 1968;21(9):1077-1087. No prevalence or incidence reported
- Mathus-Vliegen E M H. Lymphoma in coeliac disease. *J R Soc Med* 1995;88(12):672-677. No prevalence or incidence reported
- Mathus-Vliegen E M, Van Halteren H, Tytgat G N. Malignant lymphoma in coeliac disease: various manifestations with distinct symptomatology and prognosis?. *J Intern Med* 1994;236(1):43-49. No prevalence or incidence reported
- Matteoni C A, Goldblum J R, Wang N et al. Celiac disease is highly prevalent in lymphocytic colitis. *J Clin Gastroenterol* 2001;32(3):225-227. No prevalence or incidence reported
- Mattera D, Sollazzo R, Sarrantonio G et al. Serum iron, serum ferritin and oral iron load in coeliac patients on a free diet. *Ital J Gastroenterol* 1988;20(3):120-124. No prevalence or incidence reported
- Matteucci E, Cinapri V, Quilici S et al. Screening for coeliac disease in families of adults with Type 1 diabetes based on serological markers. *Diabetes Nutr Metab* 2001;14(1):37-42. Not a relevant screening group
- Maurino E, Capizzano H, Niveloni S et al. Value of endoscopic markers in celiac disease. *Dig Dis Sci* 1993;38(11):2028-2033. No prevalence or incidence reported
- Maurino Eduardo, Niveloni Sonia, Chernavsky Alejandra et al. Azathioprine in refractory sprue: results from a prospective, open-label study. *Am J Gastroenterol* 2002;97(10):2595-2602. No prevalence or incidence reported
- Mautalen C, Gonzalez D, Mazure R et al. Effect of treatment on bone mass, mineral metabolism, and body composition in untreated celiac disease patients. *Am J Gastroenterol* 1997;92(2):313-318. No prevalence or incidence reported
- Mautner V, Steinhorsdottir V, Bailey A. Enteric adenoviruses. *Curr Top Microbiol Immunol* 1995;199(III):229-282. No prevalence or incidence reported
- Mayberry J F, Smart H L, Toghill P J. Familial association between coeliac disease and ulcerative colitis: preliminary communication. *J R Soc Med* 1986;79(4):204-205. No prevalence or incidence reported
- Mazure R M, Vazquez H, Gonzalez D et al. Early changes of body composition in asymptomatic celiac disease patients. *Am J Gastroenterol* 1996;91(4):726-730. No prevalence or incidence reported
- Mazzacca G. Diet, coeliac disease and gastrointestinal neoplasm. *Adv Exp Med Biol* 1993;348:133-136. No prevalence or incidence reported
- Mazzilli M C, Ferrante P, Mariani P et al. A study of Italian pediatric celiac disease patients confirms that the primary HLA association is to the DQ(alpha 1\*0501, beta 1\*0201) heterodimer. *Hum Immunol* 1992;33(2):133-139. No prevalence or incidence reported
- Mazzola G, Berrino M, Bersanti M et al. Immunoglobulin and HLA-DP genes contribute to the susceptibility to juvenile dermatitis herpetiformis. *European Journal of Immunogenetics - Official Journal of the British Society for Histocompatibility and Immunogenetics* 1992;19(3):129-139. No prevalence or incidence reported
- Mc Manus R, Wilson A G, Mansfield J et al. TNF2, a polymorphism of the tumour necrosis-alpha gene promoter, is a component of the celiac disease major histocompatibility complex haplotype. *Eur J Immunol* 1996;26(9):2113-2118. No prevalence or incidence reported
- McCarthy C F. Coeliac disease: its Irish dimensions. *Ir J Med Sci* 1975;144(1):1-13. No prevalence or incidence reported
- McCarthy C F. The incidence of coeliac disease and its familial occurrence. *Ir Med J* 1974;67(15):420-421. No prevalence or incidence reported
- McCarthy D, Manning N, Rees J P et al. Hypothyroidism and coeliac disease--a family study. *Ir J Med Sci* 1976;145(7):237-238. No prevalence or incidence reported
- McCrae W M, Eastwood M A, Martin M R et al. Neglected coeliac disease. *Lancet* 1975;1(7900):187-190. No prevalence or incidence reported
- McCrae W M, Sweet E M. Diagnosis of osteoporosis in childhood. *Br J Radiol* 1967;40(470):104-107. No prevalence or incidence reported
- McCrae W M. Inheritance of coeliac disease. *J Med Genet* 1969;6(2):129-131. No prevalence or incidence reported

- McEvoy A, Dutton J, James O F. Bacterial contamination of the small intestine is an important cause of occult malabsorption in the elderly. *Br Med J (Clin Res Ed)* 1983;287(6395):789-793. No prevalence or incidence reported
- McFarlane X A, Bhalla A K, Reeves D E et al. Osteoporosis in treated adult coeliac disease. *Gut* 1995;36(5):710-714. No prevalence or incidence reported
- McFarlane X A, Bhalla A K, Robertson D A. Effect of a gluten free diet on osteopenia in adults with newly diagnosed coeliac disease. *Gut* 1996;39(2):180-184. No prevalence or incidence reported
- McGowan M, Gibney M J. Calcium intakes in individuals on diets for the management of cows' milk allergy: a case control study. *Eur J Clin Nutr* 1993;47(9):609-616. No prevalence or incidence reported
- McIntyre A S, Ng D P, Smith J A et al. The endoscopic appearance of duodenal folds is predictive of untreated adult celiac disease. *Gastroenterol Int* 1992;38(2):148-151. No prevalence or incidence reported
- McKenna R, Stevens F M, McNicholl B et al. Family and population studies of HLA and coeliac disease in the West of Ireland. *Tissue Antigens* 1983;22(3):175-181. No prevalence or incidence reported
- McKinley M, Leibowitz S, Bronzo R et al. Appropriate response to pneumococcal vaccine in celiac sprue. *J Clin Gastroenterol* 1995;20(2):113-116. No prevalence or incidence reported
- McLoughlin R, Sebastian S S, Qasim A et al. Coeliac disease in Europe. *Aliment Pharmacol Ther Suppl* 2003;18(3):45-48. No prevalence or incidence reported
- McMillan S A, Dickey W, Douglas J P et al. Transthyretin values correlate with mucosal recovery in patients with coeliac disease taking a gluten free diet. *J Clin Pathol* 2001;54(10):783-786. No prevalence or incidence reported
- McMillan S A, Johnston S D, Watson R G et al. Dietary intake, smoking, and transient anti-gliadin antibodies. *Scand J Gastroenterol* 1998;33(5):499-503. No prevalence or incidence reported
- McNamee S, McLoughlin R, Stevens F M et al. Coeliac disease in the older patient. *Rev Clin Gerontol* 2002;12(2):119-126. No prevalence or incidence reported
- McNeish A S, Anderson C M. Coeliac disease. The disorder in childhood. *Clin Gastroenterol* 1974;3(1):127-144. No prevalence or incidence reported
- McNeish A S, Harms H K, Rey J et al. The diagnosis of coeliac disease. A commentary on the current practices of members of the European Society for Paediatric Gastroenterology and Nutrition (ESPGAN). *Arch Dis Child* 1979;54(10):783-786. No prevalence or incidence reported
- McNeish A S, Sweet E M. Lactose intolerance in childhood coeliac disease. Assessment of its incidence and importance. *Arch Dis Child* 1968;43(230):433-437. No prevalence or incidence reported
- McNicholl B, Egan-Mitchell B, Stevens F et al. Mucosal recovery in treated childhood celiac disease (gluten-sensitive enteropathy). *Eur J Pediatr* 1976;89(3):418-424. No prevalence or incidence reported
- McNicholl B. Coeliac disease: ecology, life history and management. *Human Nutrition.Applied Nutrition* 1986;40(1):55-60. No prevalence or incidence reported
- McNicholl B. Management of coeliac disease. *Midwife Health Visit Community Nurse* 1986;22(10):361-364. No prevalence or incidence reported
- McPherson J R. Jejunal biopsy. *Med Clin North Am* 1970;54(4):851-862. No prevalence or incidence reported
- McPhillips J. Understanding coeliac disease: symptoms and long-term risks. *Br J Nurs* 2000;9(8):479-483. No prevalence or incidence reported
- Mearin M L, Biemond I, Pena A S et al. HLA-DR phenotypes in Spanish coeliac children: their contribution to the understanding of the genetics of the disease. *Gut* 1983;24(6):532-537. No prevalence or incidence reported
- Mearin M L, Bouquet J, Mourad N et al. HLA-DR antigens and phenotypes in Dutch coeliac children and their families. *Clin Genet* 1985;27(1):45-50. No prevalence or incidence reported
- Mearin M L, Koninckx C R, Biemond I et al. Influence of genetic factors on the serum levels of anti-gliadin antibodies in celiac disease. *J Pediatr Gastroenterol Nutr* 1984;3(3):373-377. No prevalence or incidence reported
- Mearin M L, Polanco I, Strober W et al. B-cell antigens recognized by maternal antisera in gluten-sensitive enteropathy. *J Clin Nutr Gastroenterol* 1986;1(1):30-36. No prevalence or incidence reported
- Meddeb-Garnaoui A, Zeliszewski D, Mougnot J F et al. Reevaluation of the relative risk for susceptibility

- to celiac disease of HLA-DRB1, -DQA1, -DQB1, -DPB1, and -TAP2 alleles in a French population. *Hum Immunol* 1995;43(3):190-199. No prevalence or incidence reported
- Mediene S, Hakem S, Bard J M et al. Serum lipoprotein profile in Algerian patients with celiac disease. *Clin Chim Acta* 1995;235(2):189-196. No prevalence or incidence reported
- Meeuwisse G W. Immunological consideration on breast vs. formula feeding. *Klin Padiatr* 1985;197(4):322-325. No prevalence or incidence reported
- Mehra N K, Kaur Gurvinder, Kanga Uma et al. Immunogenetics of autoimmune diseases in Asian Indians. *Ann N Y Acad Sci* 2002;858333-336. No prevalence or incidence reported
- Meini A, Pillan N M, Villanacci V et al. Prevalence and diagnosis of celiac disease in IgA-deficient children. *Annals of Allergy, Asthma & Immunology - Official Publication of the American College of Allergy, Asthma, & Immunology* 1996;77(4):333-336. Not a relevant screening group
- Meloni G F, Dessole S, Vargiu N et al. The prevalence of coeliac disease in infertility. *Hum Reprod* 1999;14(11):2759-2761. Not a relevant screening group
- Meloni G F, Tomasi P A, Bertoncelli A et al. Prevalence of silent celiac disease in patients with autoimmune thyroiditis from Northern Sardinia. *J Endocrinol Invest* 2001;24(5):298-302. No prevalence or incidence reported
- Meloni G, Dore A, Fanciulli G et al. Subclinical coeliac disease in schoolchildren from northern Sardinia. *Lancet* 1999;353(9146):37. Not a relevant screening geography
- Menendez-Corrada R. Current views on tropical sprue and a comparison to nontropical sprue. *Med Clin North Am* 1968;52(6):1367-1385. No prevalence or incidence reported
- Messmann H. Squamous cell cancer of the oesophagus. *Best Practice & Research. Clinical Gastroenterology* 2001;15(2):249-265. No prevalence or incidence reported
- Metcalf J. Coeliac disease and primary biliary cirrhosis: a case for mutual screening. *Gut* 1998;42(1):9-10. No prevalence or incidence reported
- Metcalf D D. Food hypersensitivity. *J Allergy Clin Immunol* 1984;73(6):749-762. No prevalence or incidence reported
- Metskula K, Grunberg H, Uibo O et al. Antigliadin antibodies and autoantibodies among 9, 12 and 15 year-old schoolchildren. *Cent-Eur J Immunol* 1998;23(3-4):197-202. Not a relevant screening geography
- Meuli R, Pichler W J, Gaze H et al. Genetic difference in HLA-DR phenotypes between coeliac disease and transitory gluten intolerance. *Arch Dis Child* 1995;72(1):29-32. No prevalence or incidence reported
- Meyer D, Stavropoulos S, Diamond B et al. Osteoporosis in a north american adult population with celiac disease. *Am J Gastroenterol* 2001;96(1):112-119. No prevalence or incidence reported
- Meyer L J, Zone J J. Familial incidence of dermatitis herpetiformis. *J Am Acad Dermatol* 1987;17(4):643-647. No prevalence or incidence reported
- Michaelsen K F, Weile B, Larsen P et al. Does the low intake of wheat in Danish infants cause the low incidence rate of coeliac disease?. *Acta Paediatr* 1993;82(6-7):605-606. No prevalence or incidence reported
- Michaelsson G, Gerden B, Hagforsen E et al. Psoriasis patients with antibodies to gliadin can be improved by a gluten-free diet. *Br J Dermatol* 2000;142(1):44-51. No prevalence or incidence reported
- Michaelsson G, Gerden B, Ottosson M et al. Patients with psoriasis often have increased serum levels of IgA antibodies to gliadin. *Br J Dermatol* 1993;129(6):667-673. No prevalence or incidence reported
- Michaelsson G, Kraaz W, Gerden B et al. Increased lymphocyte infiltration in duodenal mucosa from patients with psoriasis and serum IgA antibodies to gliadin. *Br J Dermatol* 1995;133(6):896-904. No prevalence or incidence reported
- Michalski J P, McCombs C C, Arai T et al. HLA-DR, DQ genotypes of celiac disease patients and healthy subjects from the West of Ireland. *Tissue Antigens* 1996;47(2):127-133. No prevalence or incidence reported
- Midhagen G, Jarnerot G, Kraaz W. Adult coeliac disease within a defined geographic area in Sweden. A study of prevalence and associated diseases. *Scand J Gastroenterol* 1988;23(8):1000-1004. Serology screen <1990
- Mignot E, Kimura A, Abbal M et al. DQCAR microsatellite polymorphisms in three selected HLA class II-associated diseases. *Tissue Antigens* 1995;46(4):299-304. No prevalence or incidence reported

- Miller Karen K. Mechanisms by which nutritional disorders cause reduced bone mass in adults. *J Womens Health (Larchmt)* 2003;12(2):145-150. No prevalence or incidence reported
- Miller M L. Clinical aspects of juvenile rheumatoid arthritis. *Curr Opin Rheumatol* 1997;9(5):423-427. No prevalence or incidence reported
- Mitchell R M S, Robinson T J. Monitoring dietary compliance in coeliac disease using red cell distribution width. *Int J Clin Pract* 2002;56(4):249-250. No prevalence or incidence reported
- Mitt K, Uibo O. Low cereal intake in Estonian infants: the possible explanation for the low frequency of coeliac disease in Estonia. *Eur J Clin Nutr* 1998;52(2):85-88. No prevalence or incidence reported
- Mittal K K. Immunobiology of the human major histocompatibility complex: association of HLA antigens with disease. *Acta Anthropogenet* 1984;8(3-4):245-268. No prevalence or incidence reported
- Mittal S K. Chronic diarrhea in tropics. *Indian J Pediatr* 1999;66(1 Suppl):S4-15. No prevalence or incidence reported
- Moayyedi P, O'Mahony S, Jackson P et al. Small intestine in lymphocytic and collagenous colitis: mucosal morphology, permeability, and secretory immunity to gliadin. *J Clin Pathol* 1997;50(6):527-529. No prevalence or incidence reported
- Mody G M, Cassim B. Rheumatologic manifestations of gastrointestinal disorders. *Curr Opin Rheumatol* 1998;10(1):67-72. No prevalence or incidence reported
- Mohindra S, Yachha S K, Srivastava A et al. Coeliac disease in Indian children: assessment of clinical, nutritional and pathologic characteristics. *J Health Popul Nutr* 2001;19(3):204-208. Not a relevant screening geography
- Mohn A, Cerruto M, Lafusco D et al. Celiac disease in children and adolescents with type I diabetes: importance of hypoglycemia. *J Pediatr Gastroenterol Nutr* 2001;32(1):37-40. No prevalence or incidence reported
- Mokhallalaty M, Debek A, Naja Z et al. Celiac disease at Makassed General Hospital (8 years of experience). *Rev Med Liban* 2002;14(2-3):49-53. No prevalence or incidence reported
- Molteni N, Bardella M T, Bianchi P A. Obstetric and gynecological problems in women with untreated celiac sprue. *J Clin Gastroenterol* 1990;12(1):37-39. No prevalence or incidence reported
- Molteni N, Bardella M T, Vezzoli G et al. Intestinal calcium absorption as shown by stable strontium test in celiac disease before and after gluten-free diet. *Am J Gastroenterol* 1995;90(11):2025-2028. No prevalence or incidence reported
- Molteni N, Caraceni M P, Bardella M T et al. Bone mineral density in adult celiac patients and the effect of gluten-free diet from childhood. *Am J Gastroenterol* 1990;85(1):51-53. No prevalence or incidence reported
- Moneo I, Alday E, Gonzalez-Munoz M et al. alpha-amylase hypersensitivity in non-exposed millers. *Occup Med* 1994;44(2):91-94. No prevalence or incidence reported
- Moneret-Vautrin D A, Kanny G, Morisset M et al. The food anaphylaxis Vigilance Network in France. *Allergy Clin Immunol Int* 2003;15(4):155-159. No prevalence or incidence reported
- Monetini L, Cavallo M G, Manfrini S et al. Antibodies to bovine beta-casein in diabetes and other autoimmune diseases. *Hormone and Metabolic Research. Hormon- Und Stoffwechselforschung. Hormones Et Metabolisme* 2002;34(8):455-459. No prevalence or incidence reported
- Montalto G, Carroccio A, Soresi M et al. Chronic pancreatitis in Sicily. Preliminary reports. *Ital J Gastroenterol* 1990;22(1):33-35. No prevalence or incidence reported
- Monteiro E, Menezes M L, Magalhaes Ramalho P. Anti-reticulin antibodies: a diagnostic and monitoring test for childhood coeliac disease. *Scand J Gastroenterol* 1986;21(8):955-957. No prevalence or incidence reported
- Montgomery R D, Atiyeh M, Scales W R et al. Intestinal absorption in Saudi Arabia: an evaluation of the one hour blood xylose test. *Trans R Soc Trop Med Hyg* 1982;76(1):25-28. No prevalence or incidence reported
- Montgomery R D, Shearer A C I. The cell population of the upper jejunal mucosa in tropical sprue and postinfective malabsorption. *Gut* 1974;15(5):387-391. No prevalence or incidence reported
- Moodie S J, Norman P J, King A L et al. Analysis of candidate genes on chromosome 19 in coeliac disease: an association study of the KIR and LILR gene clusters. *European Journal of Immunogenetics - Official Journal of the British Society for Histocompatibility and Immunogenetics* 2002;29(4):287-291. No prevalence or incidence reported

- Moodie S, Ciclitira P. Coeliac disease: Genetic factors and antigen presentation: MALADIE CoeLIAQUE: FACTEURS GENETIQUES ET PRESENTATION DES ANTIGENES. *Acta Endoscopica* 2001;31(3):255-264. No prevalence or incidence reported
- Mooradian A D, Morley J E, Levine A S et al. Abnormal intestinal permeability to sugars in diabetes mellitus. *Diabetologia* 1986;29(4):221-224. No prevalence or incidence reported
- Moore R H, Hitman G A, Medcraft J et al. HLA-DP region gene polymorphism in primary IgA nephropathy: No association. *Nephrol Dial Transplant* 1992;7(3):200-204. No prevalence or incidence reported
- Mora Barbara, Bonamico Margherita, Indovina Paola et al. CTLA-4 +49 A/G dimorphism in Italian patients with celiac disease. *Hum Immunol* 2003;64(2):297-301. No prevalence or incidence reported
- Mora S, Barera G, Beccio S et al. A prospective, longitudinal study of the long-term effect of treatment on bone density in children with celiac disease. *Eur J Pediatr* 2001;139(4):516-521. No prevalence or incidence reported
- Mora S, Barera G, Beccio S et al. Bone density and bone metabolism are normal after long-term gluten-free diet in young celiac patients. *Am J Gastroenterol* 1999;94(2):398-403. No prevalence or incidence reported
- Mora S, Barera G, Ricotti A et al. Reversal of low bone density with a gluten-free diet in children and adolescents with celiac disease. *Am J Clin Nutr* 1998;67(3):477-481. No prevalence or incidence reported
- Mora S, Weber G, Barera G et al. Effect of gluten-free diet on bone mineral content in growing patients with celiac disease. *Am J Clin Nutr* 1993;57(2):224-228. No prevalence or incidence reported
- Moran C E, Sosa E G, Martinez S M et al. Bone mineral density in patients with pancreatic insufficiency and steatorrhea. *Am J Gastroenterol* 1997;92(5):867-871. No prevalence or incidence reported
- Morelli M S, Zucker S D, Radford-smith G et al. A role for the appendix in inflammatory bowel disease? Cut it out. *Gastroenterology* 2003;125(4):1270-1272. No prevalence or incidence reported
- Morellini M, Trabace S, Mazzilli M C et al. A study of HLA class II antigens in an Italian paediatric population with coeliac disease. *Dis Markers* 1988;6(1):23-28. No prevalence or incidence reported
- Morris M A, Yiannakou J Y, King A L et al. Coeliac disease and Down syndrome: associations not due to genetic linkage on chromosome 21. *Scand J Gastroenterol* 2000;35(2):177-180. No prevalence or incidence reported
- Morrow-Brown H. A holistic view of allergic disease. *Human Nutrition.Applied Nutrition* 1984;38(6):421-434. No prevalence or incidence reported
- Mortimer P E, Stewart J S, Norman A P et al. Follow-up study of coeliac disease. *Br Med J* 1968;3(609):7-9. No prevalence or incidence reported
- Morton N E. An exact linkage test for multiple case families. *Hum Hered* 1983;33(4):244-249. No prevalence or incidence reported
- Moynahan E J. Skin disease and the gut. *Br Med J* 1970;4(734):559-560. No prevalence or incidence reported
- Muench R, Ammann R. Fecal immunoreactive lipase: a new tubeless pancreatic function test. *Scand J Gastroenterol* 1992;27(4):289-294. No prevalence or incidence reported
- Muers M F, Faux J A, Ting A et al. HLA-A, B, C and HLA-DR antigens in extrinsic allergic alveolitis (budgerigar fancier's lung disease). *Clin Allergy* 1982;12(1):47-53. No prevalence or incidence reported
- Mugica F, Aranzadi M J, Recasens M et al. Adult celiac disease and hypertransaminasemia. *Revista Espanola De Enfermedades Digestivas - Organo Oficial De La Sociedad Espanola De Patologia Digestiva* 2000;92(2):78-85. No prevalence or incidence reported
- Mugica F, Castiella A, Otazua P et al. Prevalence of coeliac disease in unexplained chronic hypertransaminasemia. *Revista Espanola De Enfermedades Digestivas - Organo Oficial De La Sociedad Espanola De Patologia Digestiva* 2001;93(11):707-714. No prevalence or incidence reported
- Mulder C J J, Tytgat G N J, Groenland F et al. Combined coeliac disease and thyroid disease, a study of 17 cases. *J Clin Nutr Gastroenterol* 1988;3(3):89-92. No prevalence or incidence reported
- Mulder C J. Do we have to screen the general population for coeliac disease instead of only patients with so-called associated diseases?. *Digestive and Liver Disease - Official Journal of the Italian Society of Gastroenterology and the Italian Association for the Study of the Liver* 2000;32(9):780-781. No prevalence or incidence reported

- Mulder Chris J J, Hadithi Mohammed M, Rostami Kamran et al. Coeliac disease--has the time come for routine mass screening? In 2002--2010--2020?. *Rom J Gastroenterol* 2002;11(3):179-182. No prevalence or incidence reported
- Murray I A, Clenton S, McGeorge B A et al. Retrospective audit of the value of the pancreolauryl test in a district general hospital. *Postgrad Med J* 2003;79(934):471-473. No prevalence or incidence reported
- Murray I A, Coupland K, Smith J A et al. Intestinal trehalase activity in a UK population: establishing a normal range and the effect of disease. *Br J Nutr* 2000;83(3):241-245. No prevalence or incidence reported
- Murray Iain A, Daniels Ian, Coupland Kathryn et al. Increased activity and expression of iNOS in human duodenal enterocytes from patients with celiac disease. *American Journal of Physiology. Gastrointestinal and Liver Physiology* 2002;283(2):G319-G326. No prevalence or incidence reported
- Murray J A, Herlein J, Mitros F et al. Serologic testing for celiac disease in the United States: Results of a multilaboratory comparison study. *Clin Diagn Lab Immunol* 2000;7(4):584-587. No prevalence or incidence reported
- Murray J A, Van Dyke C, Plevak M F et al. Trends in the identification and clinical features of celiac disease in a North American community, 1950-2001. *Clin Gastroenterol Hepatol* 2003;1(1):19-27. No prevalence or incidence reported
- Murray J A. Serodiagnosis of celiac disease. *Clin Lab Med* 1997;17(3):445-464. No prevalence or incidence reported
- Murray J A. The widening spectrum of celiac disease. *Am J Clin Nutr* 1999;69(3):354-365. No prevalence or incidence reported
- Mustalahti K, Holopainen P, Karell K et al. Genetic dissection between silent and clinically diagnosed symptomatic forms of coeliac disease in multiplex families. *Digestive and Liver Disease - Official Journal of the Italian Society of Gastroenterology and the Italian Association for the Study of the Liver* 2002;34(12):842-845. No prevalence or incidence reported
- Mustalahti Kirsi, Lohiniemi Susanna, Collin Pekka et al. Gluten-free diet and quality of life in patients with screen-detected celiac disease. *Effective Clinical Practice - Ecp* 2002;5(3):105-113. No prevalence or incidence reported
- Muzzo S, Burrows R, Burgueno M et al. Effect of calcium and vitamin D supplementation on bone mineral density of celiac children. *Nutr Res* 2000;20(9):1241-1247. No prevalence or incidence reported
- Myhre A G, Aarsetoy H, Undlien D E et al. High frequency of coeliac disease among patients with autoimmune adrenocortical failure. *Scand J Gastroenterol* 2003;38(5):511-515. No prevalence or incidence reported
- Mylotte M, Egan-Mitchell B, Fottrell P F et al. Family studies in coeliac disease. *Q J Med* 1974;43(171):359-369. Serology screen <1990
- Mylotte M, Egan-Mitchell B, Fottrell P F et al. Fingerprints in patients with coeliac disease and their relatives. *Br Med J* 1972;4(833):144-146. No prevalence or incidence reported
- Mylotte M, Egan-Mitchell B, McCarthy C F et al. Coeliac disease in the West of Ireland. *Br Med J* 1973;3(5878):498-499. No prevalence or incidence reported
- Mylotte M, Egan-Mitchell B, McCarthy C F et al. Incidence of coeliac disease in the West of Ireland. *Br Med J* 1973;1(5855):703-705. Serology screen <1990
- Myrelid A, Gustafsson J, Ollars B et al. Growth charts for Down Syndrome from birth to 18 years of age. *Arch Dis Child* 2002;87(2):97-103. No prevalence or incidence reported
- Nakamura T, Takeuchi T. Pancreatic steatorrhea, malabsorption, and nutrition biochemistry: a comparison of Japanese, European, and American patients with chronic pancreatitis. *Pancreas* 1997;14(4):323-333. No prevalence or incidence reported
- Nakamura T, Tando Y, Terada A et al. Can pancreatic steatorrhea be diagnosed without chemical analysis?. *International Journal of Pancreatolgy - Official Journal of the International Association of Pancreatolgy* 1997;22(2):121-125. No prevalence or incidence reported
- Nakamura T, Tando Y, Yamada N et al. Study on pancreatic insufficiency (chronic pancreatitis) and steatorrhea in Japanese patients with low fat intake. *Digestion* 1999;60(Suppl 1):93-96. No prevalence or incidence reported
- Nakshabendi I M, Downie S, Russell R I et al. Increased rates of duodenal mucosal protein synthesis in vivo in patients with untreated coelia disease. *Gut* 1996;39(2):176-179. No prevalence or incidence reported

- Naluai A T, Nilsson S, Gudjonsdottir A H et al. Genome-wide linkage analysis of Scandinavian affected sib-pairs supports presence of susceptibility loci for celiac disease on chromosomes 5 and 11. *European Journal of Human Genetics - Ejhg* 2001;9(12):938-944. No prevalence or incidence reported
- Naluai A T, Nilsson S, Samuelsson L et al. The CTLA4/CD28 gene region on chromosome 2q33 confers susceptibility to celiac disease in a way possibly distinct from that of type 1 diabetes and other chronic inflammatory disorders. *Tissue Antigens* 2000;56(4):350-355. No prevalence or incidence reported
- Nash Samantha. Does exclusive breast-feeding reduce the risk of coeliac disease in children?. *Br J Community Nurs* 2003;8(3):127-132. No prevalence or incidence reported
- Naveh Y, Lightman A, Zinder O. A prospective study of serum zinc concentration in children with celiac disease. *Eur J Pediatr* 1983;102(5):734-736. No prevalence or incidence reported
- Nazer H. Gastroenterological problems in childhood in Jordan. *Ann Trop Paediatr* 1982;2(2):69-72. No prevalence or incidence reported
- Neale G. Generalised disorders of bone associated with disease of the gastro-intestinal tract. *Ir J Med Sci* 1974;0(Suppl):57-63. No prevalence or incidence reported
- Nelsen D A. Gluten-sensitive enteropathy (celiac disease): More common than you think. *Am Fam Phys* 2002;66(12):2259-2266+2269. No prevalence or incidence reported
- Nelsen David A. Gluten-sensitive enteropathy (celiac disease): more common than you think. *Am Fam Physician* 2002;66(12):2259-2266. No prevalence or incidence reported
- Nelson R, McNeish A S, Anderson C M. Coeliac disease in children of Asian immigrants. *Lancet* 1973;1(7799):348-350. No prevalence or incidence reported
- Nepom G T, Erlich H. MHC class-II molecules and autoimmunity. *Annu Rev Immunol* 1991;9:493-525. No prevalence or incidence reported
- Nepom G T. MHC genes in HLA-associated disease. *Curr Opin Immunol* 1990;2(4):588-592. No prevalence or incidence reported
- Neuberger J. PBC and the gut: the villi atrophy, the plot thickens. *Gut* 1999;44(5):594-595. No prevalence or incidence reported
- Neuhausen Susan L, Feolo Mike, Camp Nicola J et al. Genome-wide linkage analysis for celiac disease in North American families. *Am J Med Genet* 2002;111(1):1-9. No prevalence or incidence reported
- Neuhausen Susan L, Weizman Zvi, Camp Nicola J et al. HLA DQA1-DQB1 genotypes in Bedouin families with celiac disease. *Hum Immunol* 2002;63(6):502-507. No prevalence or incidence reported
- Nicolas M E O, Krause P K, Gibson L E et al. Dermatitis herpetiformis. *Int J Dermatol* 2003;42(8):588-600. No prevalence or incidence reported
- Nielsen I M, Ornvold K, Jacobsen B B et al. Fatal familial cholestatic syndrome in Greenland Eskimo children. *Acta Paediatr Scand* 1986;75(6):1010-1016. No prevalence or incidence reported
- Nielsen O H, Jacobsen O, Pedersen E R. Non-tropical sprue. Malignant diseases and mortality rate. *Scand J Gastroenterol* 1985;20(1):13-18. No prevalence or incidence reported
- Nieminen U, Kahri A, Savilahti E et al. Duodenal disaccharidase activities in the follow-up of villous atrophy in coeliac disease. *Scand J Gastroenterol* 2001;36(5):507-510. No prevalence or incidence reported
- Nieto A, Blanco Quiros A, Arranz E et al. Study of HLA-DQA1 alleles in celiac children. *Journal of Investigational Allergology & Clinical Immunology - Official Organ of the International Association of Asthmology (Interasma) and Sociedad Latinoamericana De Alergia E Inmunologia* 1995;5(4):209-215. No prevalence or incidence reported
- Niggemann B, Reibel S, Roehr C C et al. Predictors of positive food challenge outcome in non-IgE-mediated reactions to food in children with atopic dermatitis. *J Allergy Clin Immunol* 2001;108(6):1053-1058. No prevalence or incidence reported
- Niggemann B, Sielaff B, Beyer K et al. Outcome of double-blind, placebo-controlled food challenge tests in 107 children with atopic dermatitis. *Clinical and Experimental Allergy - Journal of the British Society for Allergy and Clinical Immunology* 1999;29(1):91-96. No prevalence or incidence reported
- Nilssen D E, Brandtzaeg P, Froland S S et al. Subclass composition and J-chain expression of the 'compensatory' gastrointestinal IgG cell population in selective IgA deficiency. *Clin Exp Immunol* 1992;87(2):237-245. No prevalence or incidence reported
- Nilsson A. Lactose malabsorption and lactose intolerance in adults - A cause of irritable bowel

- syndrome?. *Scand J Nutr Naringsforsk* 2001;45(4):175-176. No prevalence or incidence reported
- Niveloni S, Dezi R, Pedreira S et al. Gluten sensitivity in patients with primary biliary cirrhosis. *Am J Gastroenterol* 1998;93(3):404-408. No prevalence or incidence reported
- Niveloni S, Fiorini A, Dezi R et al. Usefulness of videoduodenoscopy and vital dye staining as indicators of mucosal atrophy of celiac disease: assessment of interobserver agreement. *Gastroenterol Int* 1998;47(3):223-229. No prevalence or incidence reported
- Niveloni S, Pedreira S, Sugai E et al. The natural history of gluten sensitivity: report of two new celiac disease patients resulting from a long-term follow-up of nonatrophic, first-degree relatives. *Am J Gastroenterol* 2000;95(2):463-468. No prevalence or incidence reported
- Niven M J, Caffrey C, Moore R H et al. T-cell receptor beta-subunit gene polymorphism and autoimmune disease. *Hum Immunol* 1990;27(4):360-367. No prevalence or incidence reported
- Norgard B, Fonager K, Sorensen H T et al. Birth outcomes of women with celiac disease: a nationwide historical cohort study. *Am J Gastroenterol* 1999;94(9):2435-2440. No prevalence or incidence reported
- Norris T S. Three familial cases of adult idiopathic steatorrhoea. *Proc R Soc Med* 1966;59(10):1005-1006. No prevalence or incidence reported
- Nosari I, Casati A, Mora C et al. The use of IgA-antiendomysial antibody test for screening coeliac disease in insulin-dependent diabetes mellitus. *Diabetes Nutr Metab Clin Exp* 1996;9(5):267-272. No prevalence or incidence reported
- Not T, Citta A, Lucchesi A et al. Anti-endomysium antibody on human umbilical cord vein tissue: an inexpensive and sensitive diagnostic tool for the screening of coeliac disease. *Eur J Pediatr* 1997;156(8):616-618. No prevalence or incidence reported
- Not T, Ventura A, Peticarari S et al. A new, rapid, noninvasive screening test for celiac disease. *Eur J Pediatr* 1993;123(3):425-427. No prevalence or incidence reported
- Not Tarcisio, Faleschini Elena, Tommasini Alberto et al. Celiac disease in patients with sporadic and inherited cardiomyopathies and in their relatives. *Eur Heart J* 2003;24(15):1455-1461. No prevalence or incidence reported
- Nousia-Arvanitakis S, Karagiozoglou-Lamboudes T, Aggouridaki C et al. Influence of jejunal morphology changes on exocrine pancreatic function in celiac disease. *J Pediatr Gastroenterol Nutr* 1999;29(1):81-85. No prevalence or incidence reported
- Novacek G, Miehsler W, Wrba F et al. Prevalence and clinical importance of hypertransaminasaemia in coeliac disease. *Eur J Gastroenterol Hepatol* 1999;11(3):283-288. No prevalence or incidence reported
- Novembre E, Cianferoni A, Bernardini R et al. Epidemiology of insect venom sensitivity in children and its correlation to clinical and atopic features. *Clin Exp Allergy* 1998;28(7):834-838. No prevalence or incidence reported
- Nowak-Wegrzyn A, Conover-Walker M K, Wood R A. Food-allergic reactions in schools and preschools. *Arch Pediatr Adolesc Med* 2001;155(7):790-795. No prevalence or incidence reported
- Nowowiejska B, Kaczmarek M, Dabrowska E J. A long-term study in children with a recognized gluten intolerance. *Rocz Akad Med Bialymst* 1995;40(3):580-587. No prevalence or incidence reported
- O'Boyle C J, Kerin M J, Feeley K et al. Primary small intestinal tumours: increased incidence of lymphoma and improved survival. *Ann R Coll Surg Engl* 1998;80(5):332-334. No prevalence or incidence reported
- O'Connor T M, Cronin C C, Loane J F et al. Type 1 diabetes mellitus, coeliac disease, and lymphoma: a report of four cases. *Diabetic Medicine - a Journal of the British Diabetic Association* 1999;16(7):614-617. No prevalence or incidence reported
- Oderda Giuseppina, Rapa Anna, Zavallone Annalisa et al. Thyroid autoimmunity in childhood celiac disease. *J Pediatr Gastroenterol Nutr* 2002;35(5):704-705. No prevalence or incidence reported
- Odetti P, Valentini S, Aragno I et al. Oxidative stress in subjects affected by celiac disease. *Free Radic Res* 1998;29(1):17-24. No prevalence or incidence reported
- O'Farrelly C, Graeme-Cook F, Hourihane D O et al. Histological changes associated with wheat protein antibodies in the absence of villous atrophy. *J Clin Pathol* 1987;40(10):1228-1230. No prevalence or incidence reported
- O'Farrelly C. Is villous atrophy always and only the result of gluten sensitive disease of the intestine?. *Eur J Gastroenterol Hepatol* 2000;12(6):605-608. No prevalence or incidence reported

- Ogborn A D. Pregnancy in patients with coeliac disease. *Br J Obstet Gynaecol* 1975;82(4):293-296. No prevalence or incidence reported
- O'Gorman P, Bennett D, Kavanagh E et al. MALTectomy (appendectomy/tonsillectomy) does not influence the occurrence or mode of presentation of adult celiac disease. *Am J Gastroenterol* 1996;91(4):723-725. No prevalence or incidence reported
- O'Grady J G, Stevens F M, Harding B et al. Hyposplenism and gluten-sensitive enteropathy. Natural history, incidence, and relationship to diet and small bowel morphology. *Gastroenterology* 1984;87(6):1326-1331. No prevalence or incidence reported
- O'Grady J G, Stevens F M, McCarthy C F. Genetic influences on splenic function in coeliac disease. *Gut* 1985;26(10):1004-1007. No prevalence or incidence reported
- O'Keefe S J, O'Keefe E A, Burke E et al. Milk-induced malabsorption in malnourished African patients. *Am J Clin Nutr* 1991;54(1):130-135. No prevalence or incidence reported
- Olden Kevin W. Diagnosis of irritable bowel syndrome. *Gastroenterology* 2002;122(6):1701-1714. No prevalence or incidence reported
- Olds G, McLoughlin R, O'Morian C et al. Celiac disease for the endoscopist. *Gastrointest Endosc* 2002;56(3):407-415. No prevalence or incidence reported
- O'Leary C, Walsh C H, Wieneke P et al. Coeliac disease and autoimmune Addison's disease: a clinical pitfall. *Qjm - Monthly Journal of the Association of Physicians* 2002;95(2):79-82. No prevalence or incidence reported
- O'Leary Clare, Quigley Eamonn M M. Small bowel bacterial overgrowth, celiac disease, and IBS: what are the real associations?. *Am J Gastroenterol* 2003;98(4):720-722. No prevalence or incidence reported
- O'Leary Clare, Wieneke Peter, Buckley Sarah et al. Celiac disease and irritable bowel-type symptoms. *Am J Gastroenterol* 2002;97(6):1463-1467. No prevalence or incidence reported
- Olsson R, Kagevi I, Rydberg L. On the concurrence of primary biliary cirrhosis and intestinal villous atrophy. *Scand J Gastroenterol* 1982;17(5):625-628. No prevalence or incidence reported
- Olsson R, Lindberg J, Weiland O et al. Chronic active hepatitis in Sweden. The etiologic spectrum, clinical presentation, and laboratory profile. *Scand J Gastroenterol* 1988;23(4):463-470. No prevalence or incidence reported
- O'Reilly D, Murphy J, McLaughlin J et al. The prevalence of coeliac disease and cystic fibrosis in Ireland, Scotland, England and Wales. *Int J Epidemiol* 1974;3(3):247-251. Serology screen <1990
- Orgad S, Avigad S, Jonas A et al. Immunogenetics of childhood celiac disease: the association with HLA DR3 and DR7 in unrelated patients with multiply affected families. *Isr J Med Sci* 1981;17(11):1041-1044. No prevalence or incidence reported
- Ortolani C, Ispano M, Scibilia J et al. Introducing chemists to food allergy. *Allergy* 2001;56(Suppl 67):5-8. No prevalence or incidence reported
- Ots M, Uibo O, Metskula K et al. IgA-antigliadin antibodies in patients with IgA nephropathy: the secondary phenomenon?. *Am J Nephrol* 1999;19(4):453-458. No prevalence or incidence reported
- Ott D J. Celiac disease: biopsy or enteroclysis better for evaluating response to a gluten-free diet?. *Am J Gastroenterol* 1997;92(4):715-716. No prevalence or incidence reported
- Oxentenko A S, Murray J A. Celiac disease and dermatitis herpetiformis: The spectrum of gluten-sensitive enteropathy. *Int J Dermatol* 2003;42(8):585-587. No prevalence or incidence reported
- Ozgenç F, Aksu G, Aydogdu S et al. Association between anti-endomysial antibody and total intestinal villous atrophy in children with coeliac disease. *J Postgrad Med* 2003;49(1):21-24. No prevalence or incidence reported
- Ozkan T, Ozeke T, Meral A. Gliadin-specific IgA antibodies in breast milk. *J Int Med Res* 2000;28(5):234-240. No prevalence or incidence reported
- Padmanabhan Vijayalakshmi, Callas Peter W, Li Shuan C et al. Histopathological features of the terminal ileum in lymphocytic and collagenous colitis: a study of 32 cases and review of literature. *Modern Pathology - an Official Journal of the United States and Canadian Academy of Pathology, Inc* 2003;16(2):115-119. No prevalence or incidence reported
- Paerregaard A, Vilien M, Krasilnikoff P A et al. Supposed coeliac disease during childhood and its presentation 14-38 years later. *Scand J Gastroenterol* 1988;23(1):65-70. No prevalence or incidence reported
- Paimela L, Kurki P, Leirisalo-Repo M et al. Gliadin immune reactivity in patients with rheumatoid

- arthritis. *Clin Exp Rheumatol* 1995;13(5):603-607. No prevalence or incidence reported
- Palavecino E A, Mota A H, Awad J et al. HLA and celiac disease in Argentina: involvement of the DQ subregion. *Dis Markers* 1990;8(1):5-10. No prevalence or incidence reported
- Papadopoulos A J, Schwartz R A, Krysicka Janniger C. Alopecia areata: Emerging concepts. *Acta Dermatovenerol Alp Panonica Adriat* 2000;9(3):83-90. No prevalence or incidence reported
- Papadopoulos K I, Hornblad Y, Hallengren B. The occurrence of polyglandular autoimmune syndrome type III associated with coeliac disease in patients with sarcoidosis. *J Intern Med* 1994;236(6):661-663. No prevalence or incidence reported
- Papadopoulos K I, Sjoberg K, Lindgren S et al. Evidence of gastrointestinal immune reactivity in patients with sarcoidosis. *J Intern Med* 1999;245(5):525-531. No prevalence or incidence reported
- Papadopoulou A, Lloyd D R, Williams M D et al. Gastrointestinal and nutritional sequelae of bone marrow transplantation. *Arch Dis Child* 1996;75(3):208-213. No prevalence or incidence reported
- Papo M, Quer J C, Pastor R M et al. Antineutrophil cytoplasmic antibodies in relatives of patients with inflammatory bowel disease. *Am J Gastroenterol* 1996;91(8):1512-1515. No prevalence or incidence reported
- Pare P, Douville P, Caron D et al. Adult celiac sprue: changes in the pattern of clinical recognition. *J Clin Gastroenterol* 1988;10(4):395-400. No prevalence or incidence reported
- Parke A L. Gastrointestinal disorders and rheumatic diseases. *Curr Opin Rheumatol* 1993;5(1):79-84. No prevalence or incidence reported
- Parnell N D, Ciclitira P J. Review article: coeliac disease and its management. *Aliment Pharmacol Ther* 1999;13(1):1-13. No prevalence or incidence reported
- Parnell N, Ciclitira P J. Celiac disease. *Curr Opin Gastroenterol* 1999;15(2):120-124. No prevalence or incidence reported
- Parry Sally D, Welfare Mark R, Cobden Irving et al. Push enteroscopy in a UK district general hospital: experience of 51 cases over 2 years. *Eur J Gastroenterol Hepatol* 2002;14(3):305-309. No prevalence or incidence reported
- Partanen J, Milner C, Campbell R D et al. HLA-linked heat-shock protein 70 (HSP70-2) gene polymorphism and celiac disease. *Tissue Antigens* 1993;41(1):15-19. No prevalence or incidence reported
- Partanen J. The HLA-DRB4 gene does not explain genetic susceptibility in HLA-DQ2-negative celiac disease. *Immunogenetics* 2000;51(3):249-250. No prevalence or incidence reported
- Passarge E, Valentine-Thon E. Everything the pediatrician ever wanted to know about HLA but was afraid to ask. *Eur J Pediatr* 1980;133(2):93-100. No prevalence or incidence reported
- Pasternack A, Collin P, Mustonen J et al. Glomerular IgA deposits in patients with celiac disease. *Clin Nephrol* 1990;34(2):56-60. No prevalence or incidence reported
- Patel A H, Loftus E V, Murray J A et al. Cigarette smoking and celiac sprue: a case-control study. *Am J Gastroenterol* 2001;96(8):2388-2391. No prevalence or incidence reported
- Patel R S, Johlin F C, Murray J A. Celiac disease and recurrent pancreatitis. *Gastroenterol Int* 1999;50(6):823-827. No prevalence or incidence reported
- Patey-Mariaud de, Serre Cellier C, Jabri B et al. Distinction between coeliac disease and refractory sprue: a simple immunohistochemical method. *Histopathology* 2000;37(1):70-77. No prevalence or incidence reported
- Patney N L, Srivastava V K, Wahal p k et al. A study of fat malabsorption and jejunal mucosal biopsy in diabetic neuropathy: a preliminary report. *J Assoc Physicians India* 1973;21(9):777-785. No prevalence or incidence reported
- Patterson R N, Johnston S D. Iron deficiency anaemia: are the British Society of Gastroenterology guidelines being adhered to?. *Postgrad Med J* 2003;79(930):226-228. No prevalence or incidence reported
- Patwari A K, Anand V K, Kapur Gaurav et al. Clinical and nutritional profile of children with celiac disease. *Indian Pediatr* 2003;40(4):337-342. No prevalence or incidence reported
- Patwari A K. Diarrhoea and malnutrition interaction. *Indian J Pediatr* 1999;66(1 Suppl):S124-S134. No prevalence or incidence reported
- Pearce C B, Sinclair D, Duncan H D et al. Use of the anti-endomysial antibody test to diagnose coeliac disease in clinical practice. *Clin Lab* 2002;48(5-6):319-325. No prevalence or incidence reported
- Pellecchia M T, Scala R, Filla A et al. Idiopathic cerebellar ataxia associated with celiac disease: lack of distinctive neurological features. *J Neurol Neurosurg*

- Psychiatry 1999;66(1):32-35. No prevalence or incidence reported
- Pellegrini G, Scotta M S, Soardo S et al. Elevated IgA anti-gliadin antibodies in juvenile chronic arthritis. Clin Exp Rheumatol 1991;9(6):653-656. No prevalence or incidence reported
- Pena A S, Garrote J A, Crusius J B. Advances in the immunogenetics of coeliac disease. Clues for understanding the pathogenesis and disease heterogeneity. Scandinavian Journal of Gastroenterology. Supplement 1998;22556-58. No prevalence or incidence reported
- Pena A S, Mann D L, Hague N E et al. Genetic basis of gluten-sensitive enteropathy. Gastroenterology 1978;75(2):230-235. No prevalence or incidence reported
- Pena A S, Wijmenga C. Genetic factors underlying gluten-sensitive enteropathy. Curr Allergy Asthma Rep 2001;1(6):526-533. No prevalence or incidence reported
- Pengiran Tengah D S N A, Wills A J, Holmes G K T. Neurological complications of coeliac disease. Postgrad Med J 2002;78(921):393-398. No prevalence or incidence reported
- Peraaho M, Kaukinen K, Paasikivi K et al. Wheat-starch-based gluten-free products in the treatment of newly detected coeliac disease: prospective and randomized study. Aliment Pharmacol Ther 2003;17(4):587-594. No prevalence or incidence reported
- Peracchi Maddalena, Trovato Cristina, Longhi Massimo et al. Tissue transglutaminase antibodies in patients with end-stage heart failure. Am J Gastroenterol 2002;97(11):2850-2854. No prevalence or incidence reported
- Perez-Bravo F, Araya M, Mondragon A et al. Genetic differences in HLA-DQA1\* and DQB1\* allelic distributions between celiac and control children in Santiago, Chile. Hum Immunol 1999;60(3):262-267. No prevalence or incidence reported
- Perez-Machado Miguel A, Ashwood Paul, Thomson Michael A et al. Reduced transforming growth factor-beta1-producing T cells in the duodenal mucosa of children with food allergy. Eur J Immunol 2003;33(8):2307-2315. No prevalence or incidence reported
- Persliden J, Pettersson H B L, Falth-Magnusson K. Intestinal biopsy in children with coeliac disease; A Swedish national study of radiation dose and risk. Radiat Prot Dosim 1995;57(1-4):459-462. No prevalence or incidence reported
- Persliden J, Pettersson H B, Falth-Magnusson K. Small intestinal biopsy in children with coeliac disease: measurement of radiation dose and analysis of risk. Acta Paediatr 1993;82(3):296-299. No prevalence or incidence reported
- Persson L A, Ivarsson A, Hernell O. Breast-feeding protects against celiac disease in childhood--epidemiological evidence. Adv Exp Med Biol 2002;503115-123. No prevalence or incidence reported
- Perticarari S, Not T, Cauci S et al. ELISA method for quantitative measurement of IgA and IgG specific anti-gliadin antibodies. J Pediatr Gastroenterol Nutr 1992;15(3):302-309. No prevalence or incidence reported
- Petaros P, Martellosi S, Tommasini A et al. Prevalence of autoimmune disorders in relatives of patients with celiac disease. Dig Dis Sci 2002;47(7):1427-1431. No prevalence or incidence reported
- Peters U, Schneeweiss S, Trautwein E A et al. A case-control study of the effect of infant feeding on celiac disease. Ann Nutr Metab 2001;45(4):135-142. No prevalence or incidence reported
- Peters Ulrike, Askling Johan, Gridley Gloria et al. Causes of death in patients with celiac disease in a population-based Swedish cohort. Arch Intern Med 2003;163(13):1566-1572. No prevalence or incidence reported
- Petronzelli F, Bonamico M, Ferrante P et al. Genetic contribution of the HLA region to the familial clustering of coeliac disease. Ann Hum Genet 1997;61(Pt 4):307-317. No prevalence or incidence reported
- Petronzelli F, Ferrante P, Triglione P et al. Oligotyping of celiac multiplex families with the 11th International Histocompatibility Workshop reagents. Tissue Antigens 1991;38(5):238-239. No prevalence or incidence reported
- Petronzelli F, Multari G, Ferrante P et al. Different dose effect of HLA-DQ alpha beta heterodimers in insulin-dependent diabetes mellitus and celiac disease susceptibility. Hum Immunol 1993;36(3):156-162. No prevalence or incidence reported
- Phillips D L, Keeffe E B. Hematologic manifestations of gastrointestinal disease. Hematol Oncol Clin North Am 1987;1(2):207-228. No prevalence or incidence reported
- Phillips S, Donaldson L, Geisler K et al. Stool composition in factitial diarrhea: a 6-year experience with stool analysis. Ann Intern Med 1995;123(2):97-100. No prevalence or incidence reported

- Philotheou A. Epilogue: What have we learned to improve the treatment of children with diabetes mellitus and their families?. *Journal of Pediatric Endocrinology & Metabolism - Jpem* 2001;14(Suppl 1):697-700. No prevalence or incidence reported
- Piattella L, Zamponi N, Cardinali C et al. Endocranial calcifications, infantile celiac disease, and epilepsy. *Child's Nervous System - Chns - Official Journal of the International Society for Pediatric Neurosurgery* 1993;9(3):172-175. No prevalence or incidence reported
- Picarelli A, Di Giovambattista F, Cedrone C et al. Quantitative analysis of stool losses in adult celiac disease: use of near-infrared analysis reconsidered. *Scand J Gastroenterol* 1998;33(10):1052-1056. No prevalence or incidence reported
- Picarelli A, Di Tola M, Sabbatella L et al. Identification of a new coeliac disease subgroup: antiendomysial and anti-transglutaminase antibodies of IgG class in the absence of selective IgA deficiency. *J Intern Med* 2001;249(2):181-188. No prevalence or incidence reported
- Picarelli A, Di Tola M, Sabbatella L et al. Immunologic evidence of no harmful effect of oats in celiac disease. *Am J Clin Nutr* 2001;74(1):137-140. No prevalence or incidence reported
- Picarelli A, Maiuri L, Frate A et al. Production of antiendomysial antibodies after in-vitro gliadin challenge of small intestine biopsy samples from patients with coeliac disease. *Lancet* 1996;348(9034):1065-1067. No prevalence or incidence reported
- Picarelli A, Triglione P, Mariani P et al. Use of a threshold serum level of anti-gliadin antibodies improves diagnostic efficiency of the test in adult coeliac disease but is unreliable as a screening test. *Ital J Gastroenterol* 1996;28(2):70-75. No prevalence or incidence reported
- Pietroletti R, Bishop A E, Carlei F et al. Gut endocrine cell population in coeliac disease estimated by immunocytochemistry using a monoclonal antibody to chromogranin. *Gut* 1986;27(7):838-843. No prevalence or incidence reported
- Pietzak M M, Thomas D W. Childhood malabsorption. *Pediatr Rev* 2003;24(6):195-204. No prevalence or incidence reported
- Pistorius L R, Sweidan W H, Purdie D W et al. Coeliac disease and bone mineral density in adult female patients. *Gut* 1995;37(5):639-642. No prevalence or incidence reported
- Pittschieler K, Reissigl H, Mengarda G. Celiac disease in two different population groups of South Tirol. *J Pediatr Gastroenterol Nutr* 1988;7(3):400-402. Not a relevant screening geography
- Ploski R, Ascher H, Sollid L M. HLA genotypes and the increased incidence of coeliac disease in Sweden. *Scand J Gastroenterol* 1996;31(11):1092-1097. No prevalence or incidence reported
- Pocecco M, Ventura A. Coeliac disease and insulin-dependent diabetes mellitus: a causal association?. *Acta Paediatr* 1995;84(12):1432-1433. No prevalence or incidence reported
- Poddar U. Celiac disease: clinical features and diagnostic criteria. *Indian J Pediatr* 1999;66(1 Suppl):S21-S25. No prevalence or incidence reported
- Poddar Ujjal, Thapa Babu, Ram Nain et al. Celiac disease in India: are they true cases of celiac disease?. *J Pediatr Gastroenterol Nutr* 2002;35(4):508-512. Not a relevant screening geography
- Podolsky D K, LaMont J T. So, where are all the celiacs?. *Gastroenterology* 1999;116(2):237. No prevalence or incidence reported
- Polanco I, Mearin M L, Larrauri J et al. Effect of gluten supplementation in healthy siblings of children with celiac disease. *Gastroenterology* 1987;92(3):678-681. No prevalence or incidence reported
- Poley J R, Bhatia M, Welsh J D. Disaccharidase deficiency in infants with cow's milk protein intolerance. Response to treatment. *Digestion* 1978;17(2):97-107. No prevalence or incidence reported
- Polvi A, Arranz E, Fernandez-Arquero M et al. HLA-DQ2-Negative Celiac disease in Finland and Spain. *Hum Immunol* 1998;59(3):169-175. No prevalence or incidence reported
- Polvi A, Garden O A, Elwood C M et al. Canine major histocompatibility complex genes DQA and DQB in Irish setter dogs. *Tissue Antigens* 1997;49(3 Pt 1):236-243. No prevalence or incidence reported
- Polvi A, Maki M, Collin P et al. TNF microsatellite alleles a2 and b3 are not primarily associated with celiac disease in the Finnish population. *Tissue Antigens* 1998;51(5):553-555. No prevalence or incidence reported
- Polvi A, Maki M, Partanen J. Celiac patients predominantly inherit HLA-DPB1\*0101 positive haplotype from HLA-DQ2 homozygous parent. *Hum Immunol* 1997;53(2):156-158. No prevalence or incidence reported
- Poolman M, Hough S. Diabetic diarrhoea - A neglected complication. *J Endocrinol Metab Diabetes*

- S Afr 2003;8(2):52-59. No prevalence or incidence reported
- Poon E, Nixon R. Cutaneous spectrum of coeliac disease. *Australas J Dermatol* 2001;42(2):136-138. No prevalence or incidence reported
- Popat S, Hearle N, Bevan S et al. Mutational analysis of CD28 in coeliac disease. *Scand J Gastroenterol* 2002;37(5):536-539. No prevalence or incidence reported
- Popat S, Hearle N, Hogberg L et al. Variation in the CTLA4/CD28 gene region confers an increased risk of coeliac disease. *Ann Hum Genet* 2002;66(Pt 2):125-137. No prevalence or incidence reported
- Popat S, Hearle N, Wixey J et al. Analysis of the CTLA4 gene in Swedish coeliac disease patients. *Scand J Gastroenterol* 2002;37(1):28-31. No prevalence or incidence reported
- Popat S, Hogberg L, McGuire S et al. Germline mutations in TGM2 do not contribute to coeliac disease susceptibility in the Swedish population. *Eur J Gastroenterol Hepatol* 2001;13(12):1477-1479. No prevalence or incidence reported
- Porter K G, McMaster D, Elmes M E et al. Anemia and low serum-copper during zinc therapy. *Lancet* 1977;2(8041):774. No prevalence or incidence reported
- Postel-Vinay M C, Saab C, Gourmelen M. Nutritional status and growth hormone-binding protein. *Horm Res* 1995;44(4):177-181. No prevalence or incidence reported
- Prasad S, Thomas P, Nicholas D S et al. Adult endomysial antibody-negative coeliac disease and cigarette smoking. *Eur J Gastroenterol Hepatol* 2001;13(6):667-671. No prevalence or incidence reported
- Pratesi R, Gandolfi L, Friedman H et al. Serum IgA antibodies from patients with coeliac disease react strongly with human brain blood-vessel structures. *Scand J Gastroenterol* 1998;33(8):817-821. No prevalence or incidence reported
- Pratesi R, Gandolfi L, Garcia S G et al. Prevalence of coeliac disease: Unexplained age-related variation in the same population. *Scand J Gastroenterol* 2003;38(7):747-750. Not a relevant screening geography
- Pratesi R, Gandolfi L, Garcia S G et al. Prevalence of coeliac disease: Unexplained age-related variation in the same population. *Scand J Gastroenterol* 2003;38(7):747-750. Not a relevant screening geography
- Pratesi Riccardo, Gandolfi Lenora, Martins Rita C et al. Is the prevalence of celiac disease increased among epileptic patients?. *Arq Neuropsiquiatr* 2003;61(2b):330-334. No prevalence or incidence reported
- Prati D, Bardella M T, Peracchi M et al. High frequency of anti-endomysial reactivity in candidates to heart transplant. *Digestive and Liver Disease - Official Journal of the Italian Society of Gastroenterology and the Italian Association for the Study of the Liver* 2002;34(1):39-43. No prevalence or incidence reported
- Pratico G, Caltabiano L, Bottaro G et al. Serum levels of osteocalcin and type I procollagen in children with celiac disease. *J Pediatr Gastroenterol Nutr* 1997;24(2):170-173. No prevalence or incidence reported
- Presotto F, Betterle C. Insulin-dependent diabetes mellitus: A constellation of autoimmune diseases. *Journal of Pediatric Endocrinology & Metabolism - Jpem* 1997;10(5):455-469. No prevalence or incidence reported
- Prichard M G, Ryan G, Musk A W. Wheat flour sensitisation and airways disease in urban bakers. *Br J Ind Med* 1984;41(4):450-454. No prevalence or incidence reported
- Pricolo V E, Mangi A A, Aswad B et al. Gastrointestinal malignancies in patients with celiac sprue. *Am J Surg* 1998;176(4):344-347. No prevalence or incidence reported
- Primack S L, Miller R R, Muller N L. Diffuse pulmonary hemorrhage: Clinical, pathologic, and imaging features. *Am J Roentgenol* 1995;164(2):295-300. No prevalence or incidence reported
- Primignani M, Agape D, Ronchi G et al. Prevalence of duodenal and jejunal lesions in dermatitis herpetiformis. *Ric Clin Lab* 1987;17(3):243-249. No prevalence or incidence reported
- Prince M I, Jones D E J. Primary biliary cirrhosis: New perspectives in diagnosis and treatment. *Postgrad Med J* 2000;76(894):199-206. No prevalence or incidence reported
- Probert C S, Mayberry J F, Mann R. Inflammatory bowel disease in the rural Indian subcontinent: a survey of patients attending mission hospitals. *Digestion* 1990;47(1):42-46. No prevalence or incidence reported
- Procaccini E, Chianelli M, Pantano P et al. Imaging of autoimmune diseases. *Q J Nucl Med* 1999;43(1):100-112. No prevalence or incidence reported

- Pruessner H T. Detecting celiac disease in your patients. *Am Fam Physician* 1998;57(5):1023-34, 1039. No prevalence or incidence reported
- Pryce D, Behrens R, Davidson R et al. Onchocerciasis in members of an expedition to Cameroon: Role of advice before travel and long term follow up. *Br Med J* 1992;304(6837):1285-1286. No prevalence or incidence reported
- Pueschel S M, Romano C, Failla P et al. A prevalence study of celiac disease in persons with Down syndrome residing in the United States of America. *Acta Paediatr* 1999;88(9):953-956. Not a relevant screening group
- Pynnonen P, Isometsa E, Aalberg V et al. Is coeliac disease prevalent among adolescent psychiatric patients?. *Acta Paediatr* 2002;91(6):657-659. No prevalence or incidence reported
- Qari F A. Clinical presentation of adult celiac disease in Western Saudi Arabia. *Saudi Med J* 2002;23(12):1514-1517. No prevalence or incidence reported
- Quisel Anna, Gill James M, Westerberg Dyanne. Guideline for diagnosis of celiac disease. *Del Med J* 2002;74(5):229-241. No prevalence or incidence reported
- Rabassa E B, Sagaro E, Fragoso T et al. Coeliac disease in Cuban children. *Arch Dis Child* 1981;56(2):128-131. Not a relevant screening geography
- Rabinowitz L G, Esterly N B. Inflammatory bullous diseases in children. *Dermatol Clin* 1993;11(3):565-581. No prevalence or incidence reported
- Raccuglia G, French A, Zarafonitis C J. Absorption and excretion of cyanocobalamin after oral administration of a large dose in various conditions. *Acta Haematol* 1969;42(1):1-7. No prevalence or incidence reported
- Radzikowski A, Kulus M, Krauze A et al. Growth, bone age and nutritional status in neglected coeliac disease. *Materia Medica Polona. Polish Journal of Medicine and Pharmacy* 1991;23(2):146-150. No prevalence or incidence reported
- Raffensperger E C, D'Agostino F, Manfredo H et al. Fecal fat excretion. An analysis of four years' experience. *Arch Intern Med* 1967;119(6):573-576. No prevalence or incidence reported
- Ralston S H, Willocks L, Pitkeathly D A et al. High prevalence of unrecognized osteomalacia in hospital patients with rheumatoid arthritis. *Br J Rheumatol* 1988;27(3):202-205. No prevalence or incidence reported
- Ramalingaswami V. Interface of protein nutrition and medicine in the tropics. *Lancet* 1969;2(7623):733-736. No prevalence or incidence reported
- Ramos-Arroyo M A, Feijoo E, Sanchez-Valverde F et al. Heat-shock protein 70-1 and HLA class II gene polymorphisms associated with celiac disease susceptibility in Navarra (Spain). *Hum Immunol* 2001;62(8):821-825. No prevalence or incidence reported
- Ramos-Remus C, Bahlas S, Vaca-Morales O. Rheumatic features of gastrointestinal tract, hepatic, and pancreatic diseases. *Curr Opin Rheumatol* 1997;9(1):56-61. No prevalence or incidence reported
- Ramot B, Many A. Primary intestinal lymphoma: clinical manifestations and possible effect of environmental factors. *Recent Results in Cancer Research. Fortschritte Der Krebsforschung. Progres Dans Les Recherches Sur Le Cancer* 1972;39:193-199. No prevalence or incidence reported
- Rampertab S D, Forde K A, Green P H R. Small bowel neoplasia in coeliac disease. *Gut* 2003;52(8):1211-1214. No prevalence or incidence reported
- Rannem T, Hylander E, Jarnum S et al. Calcium absorption and bone mineral content in patients subjected to ileal bypass because of familial hypercholesterolaemia. *Scand J Gastroenterol* 1990;25(9):897-905. No prevalence or incidence reported
- Rapoport M J, Bistrizter T, Vardi O et al. Increased prevalence of diabetes-related autoantibodies in celiac disease. *J Pediatr Gastroenterol Nutr* 1996;23(5):524-527. No prevalence or incidence reported
- Rasmusson C G, Eriksson M A. Celiac disease and mineralisation disturbances of permanent teeth. *International Journal of Paediatric Dentistry / the British Paedodontic Society and the International Association of Dentistry for Children* 2001;11(3):179-183. No prevalence or incidence reported
- Ratnam K V. IgA dermatosis in an adult Chinese population. A 10-year study of linear IgA and dermatitis herpetiformis in Singapore. *Int J Dermatol* 1988;27(1):21-24. No prevalence or incidence reported
- Ratsch I M, Catassi C. Coeliac disease: a potentially treatable health problem of Saharawi refugee children. *Bull World Health Organ* 2001;79(6):541-545. No prevalence or incidence reported
- Rautonen J, Rautonen N, Savilahti E. Antibodies to gliadin in children with coeliac disease. *Acta Paediatr*

- Scand 1991;80(12):1200-1206. No prevalence or incidence reported
- Ravaglia Giovanni, Forti Paola, Maioli Fabiola et al. Increased prevalence of coeliac disease in autoimmune thyroiditis is restricted to aged patients. *Exp Gerontol* 2003;38(5):589-595. No prevalence or incidence reported
- Ravelli A M, Tobanelli P, Minelli L et al. Endoscopic features of celiac disease in children. *Gastroenterol Int* 2001;54(6):736-742. No prevalence or incidence reported
- Rawashdeh M O, Khalil B, Raweily E. Celiac disease in Arabs. *J Pediatr Gastroenterol Nutr* 1996;23(4):415-418. No prevalence or incidence reported
- Rea F, Polito C, Marotta A et al. Restoration of body composition in celiac children after one year of gluten-free diet. *J Pediatr Gastroenterol Nutr* 1996;23(4):408-412. No prevalence or incidence reported
- Read M, O'Halloran E T, O'Sullivan C. Coeliac disease in adolescents/young adults: difficulties in monitoring. *Br J Biomed Sci* 2000;57(3):217-221. No prevalence or incidence reported
- Reeder M M. RPC of the month from AFIP. *Radiology* 1969;93(2):427-433. No prevalence or incidence reported
- Reen D J, O'Regan D. HLA antigen frequencies in an Irish population. *Tissue Antigens* 1980;15(4):369-372. No prevalence or incidence reported
- Rees T D, Binnie W H. Recurrent aphthous stomatitis. *Dermatol Clin* 1996;14(2):243-256. No prevalence or incidence reported
- Reeves G E, Burns C, Hall S T et al. The measurement of IgA and IgG transglutaminase antibodies in celiac disease: a comparison with current diagnostic methods. *Pathology* 2000;32(3):181-185. No prevalence or incidence reported
- Reibel S, Rohr C, Ziegert M et al. What safety measures need to be taken in oral food challenges in children?. *Allergy* 2000;55(10):940-944. No prevalence or incidence reported
- Reijonen H, Ilonen J, Knip M et al. Insulin-dependent diabetes mellitus associated with dermatitis herpetiformis: evidence for heterogeneity of HLA-associated genes. *Tissue Antigens* 1991;37(2):94-96. No prevalence or incidence reported
- Reiner E B, Patterson M. Intestinal disaccharidase content. *South Med J* 1966;59(3):311-314. No prevalence or incidence reported
- Rejman F. Postgastrectomy syndrome. A clinical study based upon 100 patients. *Annales Chirurgiae Et Gynaecologiae Fenniae. Supplementum* 1970;1701-63. No prevalence or incidence reported
- Rensch M J, Szykowski R, Shaffer R T et al. The prevalence of celiac disease autoantibodies in patients with systemic lupus erythematosus. *Am J Gastroenterol* 2001;96(4):1113-1115. No prevalence or incidence reported
- Rettenbacher T, Hollerweger A, Macheiner P et al. Adult celiac disease: US signs. *Radiology* 1999;211(2):389-394. No prevalence or incidence reported
- Reunala T L, Koskimies S. Familial dermatitis herpetiformis. *Clin Dermatol* 1991;9(3):335-339. No prevalence or incidence reported
- Reunala T L. Dermatitis herpetiformis. *Clin Dermatol* 2001;19(6):728-736. No prevalence or incidence reported
- Reunala T, Collin P. Diseases associated with dermatitis herpetiformis. *Br J Dermatol* 1997;136(3):315-318. No prevalence or incidence reported
- Reunala T, Lokki J. Dermatitis herpetiformis in Finland. *Acta Derm Venereol* 1978;58(6):505-510. No prevalence or incidence reported
- Reunala T, Salo O P, Tiilikainen A et al. Family studies in dermatitis herpetiformis. *Ann Clin Res* 1976;8(4):254-261. No prevalence or incidence reported
- Reunala T. Dermatitis herpetiformis: coeliac disease of the skin. *Ann Med* 1998;30(5):416-418. No prevalence or incidence reported
- Reunala T. Incidence of familial dermatitis herpetiformis. *Br J Dermatol* 1996;134(3):394-398. No prevalence or incidence reported
- Reyes H, Radrigan M E, Gonzalez M C et al. Steatorrhea in patients with intrahepatic cholestasis of pregnancy. *Gastroenterology* 1987;93(3):584-590. No prevalence or incidence reported
- Rhim G S, McMorris M S. School readiness for children with food allergies. *Annals of Allergy, Asthma & Immunology - Official Publication of the American College of Allergy, Asthma, & Immunology* 2001;86(2):172-176. No prevalence or incidence reported
- Ribeiro U, Posner M C, Safatle-Ribeiro A V et al. Risk factors for squamous cell carcinoma of the oesophagus. *Br J Surg* 1996;83(9):1174-1185. No prevalence or incidence reported

Ribes C, Pena AS, Pereda A et al. IGA gliadin antibodies, a useful screening test for coeliac disease in family members of children with coeliac disease. *J Clin Nutr Gastroenterol* 1991; 6(4):196-202. Unable to obtain full article

Ribes-Koninckx C, Alfonso P, Ortigosa L et al. A beta-turn rich oats peptide as an antigen in an ELISA method for the screening of coeliac disease in a paediatric population. *Eur J Clin Invest* 2000;30(8):702-708. No prevalence or incidence reported

Riccabona M, Rossipal E. Sonographic findings in celiac disease. *J Pediatr Gastroenterol Nutr* 1993;17(2):198-200. No prevalence or incidence reported

Rich E J, Christie D L. Anti-gliadin antibody panel and xylose absorption test in screening for celiac disease. *J Pediatr Gastroenterol Nutr* 1990;10(2):174-178. No prevalence or incidence reported

Rifkind E A, Logan R F A, Busuttill A. Coeliac disease in Edinburgh and the Lothians 1900-1980. *Scott Med J* 1982;27(4):342. No prevalence or incidence reported

Rifkind E A, Logan R F, Busuttill A et al. Coeliac disease in Edinburgh and the Lothians 1900-1980. *Scott Med J* 1982;27(3):256. Serology screen <1990

Riggs B L, Kelly P J, Kinney W R et al. Calcium deficiency and osteoporosis. Observations in one hundred and sixty-six patients and critical review of the literature. *Journal of Bone and Joint Surgery. American Volume* 1967;49(5):915-924. No prevalence or incidence reported

Riley D. Changing paediatrics. 18 years admissions to a medical unit. *Scott Med J* 1968;13(5):159-161. No prevalence or incidence reported

Riordan S M, McIver C J, Duncombe V M et al. Factors influencing the 1-g 14C-D-xylose breath test for bacterial overgrowth. *Am J Gastroenterol* 1995;90(9):1455-1460. No prevalence or incidence reported

Risch N. Assessing the role of HLA-linked and unlinked determinants of disease. *Am J Hum Genet* 1987;40(1):1-14. No prevalence or incidence reported

Rizzetto M, Bonino F, Pera A et al. Incidence and significance of different types of connective tissue antibodies in adult and pediatric gastroenterological disorders. *Digestion* 1978;17(1):29-37. No prevalence or incidence reported

Robbana-Barnat S, Fradin J. Cereal grains: IgE- and non-IgE-mediated reactions. *J Nutr Environ Med* 1997;7(1):35-46. No prevalence or incidence reported

Robert M E, Ament M E, Weinstein W M. The histologic spectrum and clinical outcome of refractory and unclassified sprue. *Am J Surg Pathol* 2000;24(5):676-687. No prevalence or incidence reported

Robinson B N, Roberts D F, Mather B A et al. Coeliac disease and HLA: a family study. *J Immunogenet* 1980;7(5):381-391. No prevalence or incidence reported

Robinson F. FLAIR-FLOW 4: Synthesis report on food allergy for health professionals. *Nutr Bull* 2002;27(2):85-92. No prevalence or incidence reported

Robinson F. Producing foods for consumers with food allergy. *Nutr Bull* 2003;28(1):65-67. No prevalence or incidence reported

Robles D T, Fain P R, Gottlieb P A et al. The genetics of autoimmune polyendocrine syndrome type II. *Endocrinol Metab Clin North Am* 2002;31(2):353-368. No prevalence or incidence reported

Rogers E L, Douglass W, Russell R M et al. Deficiency of fat soluble vitamins after jejunoileal bypass surgery for morbid obesity. *Am J Clin Nutr* 1980;33(6):1208-1214. No prevalence or incidence reported

Roizen Nancy J, Patterson David. Down Syndrome. *Lancet* 2003;361(9365):1281-1289. No prevalence or incidence reported

Roldan M B, Alonso M, Barrio R. Thyroid autoimmunity in children and adolescents with Type 1 diabetes mellitus. *Diabetes Nutr Metab* 1999;12(1):27-31. No prevalence or incidence reported

Romiti A, Merli M, Martorano M et al. Malabsorption and nutritional abnormalities in patients with liver cirrhosis. *Ital J Gastroenterol* 1990;22(3):118-123. No prevalence or incidence reported

Rona R J, Tanner J M. Aetiology of idiopathic growth hormone deficiency in England and Wales. *Arch Dis Child* 1977;52(3):197-208. No prevalence or incidence reported

Rosa Utiyama S R, Silva Kotze L M, Nisihara R M et al. Spectrum of autoantibodies in celiac patients and relatives. *Dig Dis Sci* 2001;46(12):2624-2630. No prevalence or incidence reported

Roschger P, Fratzi P, Eschberger J et al. Validation of quantitative backscattered electron imaging for the measurement of mineral density distribution in human bone biopsies. *Bone* 1998;23(4):319-326. No prevalence or incidence reported

- Roschmann E, Wienker T F, Gerok W et al. Analysis of marker genes contributing to coeliac disease susceptibility. *Adv Exp Med Biol* 1995;371b:1339-1343. No prevalence or incidence reported
- Roschmann E, Wienker T F, Gerok W et al. T-cell receptor variable genes and genetic susceptibility to coeliac disease: an association and linkage study. *Gastroenterology* 1993;105(6):1790-1796. No prevalence or incidence reported
- Roschmann E, Wienker T F, Volk B A. Role of T cell receptor delta gene in susceptibility to coeliac disease. *J Mol Med* 1996;74(2):93-98. No prevalence or incidence reported
- Rose G A. Clinical aspects of calcium metabolism. *Bone diseases. Trans Med Soc Lond* 1970;8662-71. No prevalence or incidence reported
- Rosenberg W M, Wordsworth B P, Jewell D P et al. A locus telomeric to HLA-DPB encodes susceptibility to coeliac disease. *Immunogenetics* 1989;30(4):307-310. No prevalence or incidence reported
- Ross J R. Postgastrectomy syndromes and their management. *Surg Clin North Am* 1971;51(3):615-632. No prevalence or incidence reported
- Rossi E. Monosymptomatic forms of coeliac disease. *Eur J Pediatr* 1982;138(1):4-5. No prevalence or incidence reported
- Rossiter M A, Barrowman J A, Dand A et al. Amylase content of mixed saliva in children. *Acta Paediatr Scand* 1974;63(3):389-392. No prevalence or incidence reported
- Ross-Smith P, Jenner F A. Diet (gluten) and schizophrenia. *J Hum Nutr* 1980;34(2):107-112. No prevalence or incidence reported
- Rostami K, Mulder C J J. Coeliac disease. A challenging diagnosis. *Rom J Gastroenterol* 1999;8(2):111-114. No prevalence or incidence reported
- Rostami K, Steegers E A, Wong W Y et al. Coeliac disease and reproductive disorders: a neglected association. *Eur J Obstet Gynecol Reprod Biol* 2001;96(2):146-149. No prevalence or incidence reported
- Rostoker G, Delchier J C, Chaumette M T. Increased intestinal intra-epithelial T lymphocytes in primary glomerulonephritis: a role of oral tolerance breakdown in the pathophysiology of human primary glomerulonephritides?. *Nephrology, Dialysis, Transplantation - Official Publication of the European Dialysis and Transplant Association - European Renal Association* 2001;16(3):513-517. No prevalence or incidence reported
- Rotter J I, Landaw E M. Measuring the genetic contribution of a single locus to a multilocus disease. *Clin Genet* 1984;26(6):529-542. No prevalence or incidence reported
- Rovner Alisha J, Schall Joan I, Jawad Abbas F et al. Rethinking growth failure in Alagille syndrome: the role of dietary intake and steatorrhea. *J Pediatr Gastroenterol Nutr* 2002;35(4):495-502. No prevalence or incidence reported
- Roy P K, Venzon D J, Feigenbaum K M et al. Gastric secretion in Zollinger-Ellison syndrome. Correlation with clinical expression, tumor extent and role in diagnosis--a prospective NIH study of 235 patients and a review of 984 cases in the literature. *Medicine* 2001;80(3):189-222. No prevalence or incidence reported
- Roy R N, Russell R I. Crohn's disease & aflatoxins. *J R Soc Health* 1992;112(6):277-279. No prevalence or incidence reported
- Rude R K, Olerich M. Magnesium deficiency: possible role in osteoporosis associated with gluten-sensitive enteropathy. *Osteoporosis International - a Journal Established as Result of Cooperation Between the European Foundation for Osteoporosis and the National Osteoporosis Foundation of the Usa* 1996;6(6):453-461. No prevalence or incidence reported
- Rueda B, Pascual M, Lopez-Nevot M A et al. A new allele within the transmembrane region of the human MICA gene with seven GCT repeats. *Tissue Antigens* 2002;60(6):526-528. No prevalence or incidence reported
- Rueda B, Pascual M, Lopez-Nevot M A et al. Association of MICA-A5.1 allele with susceptibility to coeliac disease in a family study. *Am J Gastroenterol* 2003;98(2):359-362. No prevalence or incidence reported
- Rueda Blanca, Lopez-Nevot Miguel, Angel Pascual et al. Polymorphism of the inducible nitric oxide synthase gene in coeliac disease. *Hum Immunol* 2002;63(11):1062-1065. No prevalence or incidence reported
- Ruiz del Prado M Y, Olivares Lopez J L et al. HLA system. Phenotypic and gene frequencies in coeliac and healthy subjects from the same geographical area. *Revista Espanola De Enfermedades Digestivas - Organo Oficial De La Sociedad Espanola De Patologia Digestiva* 2001;93(2):106-113. No prevalence or incidence reported
- Ruiz M Y, Olivares J L. Three-loci HLA haplotypes in Spanish coeliac children and healthy subjects: estimation of linkage disequilibrium and haplotype

- frequencies. *Am J Gastroenterol* 2001;96(5):1455-1459. No prevalence or incidence reported
- Rumbo M, Chirido F G, Ben R et al. Evaluation of coeliac disease serological markers in Down syndrome patients. *Digestive and Liver Disease - Official Journal of the Italian Society of Gastroenterology and the Italian Association for the Study of the Liver* 2002;34(2):116-121. No prevalence or incidence reported
- Ruskone-Fourmesttraux A, Rambaud J C. Gastrointestinal lymphoma: prevention and treatment of early lesions. *Best Practice & Research. Clinical Gastroenterology* 2001;15(2):337-354. No prevalence or incidence reported
- Russo M W, Fried M W. Side effects of therapy for chronic hepatitis C. *Gastroenterology* 2003;124(6):1711-1719. No prevalence or incidence reported
- Russo P A, Chartrand L J, Seidman E. Comparative analysis of serologic screening tests for the initial diagnosis of celiac disease. *Pediatrics* 1999;104(1 Pt 1):75-78. No prevalence or incidence reported
- Ryan J. Coeliac disease. Update 2000. *Aust Fam Physician* 2000;29(9):835-838. No prevalence or incidence reported
- Ryder L P, Staub Nielsen L, Svejgaard A. Associations between HL A histocompatibility antigens and non malignant diseases. *Humangenetik* 1974;25(4):251-264. No prevalence or incidence reported
- Saalman R, Fallstrom S P. High incidence of urinary tract infection in patients with coeliac disease. *Arch Dis Child* 1996;74(2):170-171. No prevalence or incidence reported
- Sabra Aderbal, Bellanti Joseph A, Rais Jonathan et al. IgE and non-IgE food allergy. *Annals of Allergy, Asthma & Immunology - Official Publication of the American College of Allergy, Asthma, & Immunology* 2003;90(6 Suppl 3):71-76. No prevalence or incidence reported
- Sachdev A, Srinivasan V, Maheswary S et al. Adult onset celiac disease in north India. *Tropical Gastroenterology - Official Journal of the Digestive Diseases Foundation* 2002;23(3):117-119. No prevalence or incidence reported
- Sagaro E, Jimenez N. Family studies of coeliac disease in Cuba. *Arch Dis Child* 1981;56(2):132-133. Not a relevant screening geography
- Salmela M T, Pender S L, Reunala T et al. Parallel expression of macrophage metalloelastase (MMP-12) in duodenal and skin lesions of patients with dermatitis herpetiformis. *Gut* 2001;48(4):496-502. No prevalence or incidence reported
- Salur L, Uibo O, Talvik I et al. The high frequency of coeliac disease among children with neurological disorders. *European Journal of Neurology - the Official Journal of the European Federation of Neurological Societies* 2000;7(6):707-711. No prevalence or incidence reported
- Salvati V M, Bajaj-Elliott M, Poulosom R et al. Keratinocyte growth factor and coeliac disease. *Gut* 2001;49(2):176-181. No prevalence or incidence reported
- Salvetti M, Ristori G, Bompreszi R et al. Twins: Mirrors of the immune system. *Immunol Today* 2000;21(7):342-347. No prevalence or incidence reported
- Sampson H A, Scanlon S M. Natural history of food hypersensitivity in children with atopic dermatitis. *Eur J Pediatr* 1989;115(1):23-27. No prevalence or incidence reported
- Sampson H A. Food allergy. *Curr Opin Immunol* 1990;2(4):542-547. No prevalence or incidence reported
- Sampson H A. Patient's perception of food allergy may not jibe with reality. *Consultant* 1997;37(2):226+233 No prevalence or incidence reported
- Sampson H A. Utility of food-specific IgE concentrations in predicting symptomatic food allergy. *J Allergy Clin Immunol* 2001;107(5):891-896. No prevalence or incidence reported
- Sanchez D, Tuckova L, Sebo P et al. Occurrence of IgA and IgG autoantibodies to calreticulin in coeliac disease and various autoimmune diseases. *J Autoimmun* 2000;15(4):441-449. No prevalence or incidence reported
- Sanchez-Albisua Iciar, Storm Wolfgang, Wascher Iris et al. How frequent is coeliac disease in Down syndrome?. *Eur J Pediatr* 2002;161(12):683-684. Not a relevant screening group
- Sanchez-Borges M, Capriles-Hulett A, Suarez-Chacon R et al. Oral anaphylaxis from mite ingestion. *Allergy Clin Immunol Int* 2001;13(1):33-35. No prevalence or incidence reported
- Sandberg-Bennich S, Dahlquist G, Kallen B. Coeliac disease is associated with intrauterine growth and neonatal infections. *Acta Paediatr* 2002;91(1):30-33. No prevalence or incidence reported
- Sanders D S, Carter M J, Hurlstone D P et al. Association of adult coeliac disease with irritable bowel syndrome: a case-control study in patients

- fulfilling ROME II criteria referred to secondary care. *Lancet* 2001;358(9292):1504-1508. No prevalence or incidence reported
- Sanders D S, Hurlstone D P, Stokes R O et al. Changing face of adult coeliac disease: experience of a single university hospital in South Yorkshire. *Postgrad Med J* 2002;78(915):31-33. Not a relevant screening test
- Sanders D S. Coeliac disease. *Br J Surg* 2002;89(6):676-677. Review article
- Saredi N, Bava J. Cryptosporidiosis in pediatric patients. *Rev Inst Med Trop Sao Paulo* 1998;40(3):197-200. No prevalence or incidence reported
- Sari Ramazan, Aydogdu Ismet, Sevinc Alper et al. Upper and lower gastrointestinal endoscopic investigation in elderly patients with iron deficiency anaemia. *Haematologia (Budap)* 2002;31(4):327-332. Not a relevant screening geography
- Sategna Guidetti C, Solerio E, Scaglione N et al. Duration of gluten exposure in adult coeliac disease does not correlate with the risk for autoimmune disorders. *Gut* 2001;49(4):502-505. No prevalence or incidence reported
- Sategna Guidetti, Carla Scaglione, Nadia Martini et al. Red cell distribution width as a marker of coeliac disease: a prospective study. *Eur J Gastroenterol Hepatol* 2002;14(2):177-181. No prevalence or incidence reported
- Sategna-Guidetti C, Bianco L, Riffero P. Is watery diarrhoea a feature of distal ileum resection in Crohn's disease female patients?. *Panminerva Med* 1987;29(3):189-190. No prevalence or incidence reported
- Sategna-Guidetti C, Bruno M, Mazza E et al. Autoimmune thyroid diseases and coeliac disease. *Eur J Gastroenterol Hepatol* 1998;10(11):927-931. No prevalence or incidence reported
- Sategna-Guidetti C, Ferfaglia G, Bruno M et al. Do IgA anti gliadin and IgA antiendomysium antibodies show there is latent coeliac disease in primary IgA nephropathy?. *Gut* 1992;33(4):476-478. No prevalence or incidence reported
- Sategna-Guidetti C, Grosso S B, Grosso S et al. The effects of 1-year gluten withdrawal on bone mass, bone metabolism and nutritional status in newly-diagnosed adult coeliac disease patients. *Aliment Pharmacol Ther* 2000;14(1):35-43. No prevalence or incidence reported
- Sategna-Guidetti C, Grosso S, Bruno M et al. Reliability of immunologic markers of celiac sprue in the assessment of mucosal recovery after gluten withdrawal. *J Clin Gastroenterol* 1996;23(2):101-104. No prevalence or incidence reported
- Sategna-Guidetti C, Grosso S. Changing pattern in adult coeliac disease: A 24-year survey. *Eur J Gastroenterol Hepatol* 1994;6(1):15-19. Not a relevant screening test
- Sategna-Guidetti C, Volta U, Ciacci C et al. Prevalence of thyroid disorders in untreated adult celiac disease patients and effect of gluten withdrawal: an Italian multicenter study. *Am J Gastroenterol* 2001;96(3):751-757. No prevalence or incidence reported
- Saukkonen T, Ilonen J, Akerblom H K et al. Prevalence of coeliac disease in siblings of patients with Type I diabetes is related to the prevalence of DQB1\*02 allele. *Diabetologia* 2001;44(8):1051-1053. Not a relevant screening group
- Saukkonen T, Vaisanen S, Akerblom H K et al. Coeliac disease in children and adolescents with type I diabetes: a study of growth, glycaemic control, and experiences of families. *Acta Paediatr* 2002;91(3):297-302. No prevalence or incidence reported
- Savage D A, Middleton D, Trainor F et al. HLA class II frequencies in celiac disease patients in the west of Ireland. *Hum Immunol* 1992;34(1):47-52. No prevalence or incidence reported
- Saviana B, Quilliot D, Ziegler O et al. Diagnosis of lipid malabsorption in patients with chronic pancreatitis: a new indirect test using postprandial plasma apolipoprotein B-48. *Am J Gastroenterol* 1999;94(11):3229-3235. No prevalence or incidence reported
- Savidge T C, Shmakov A N, Walker-Smith J A et al. Epithelial cell proliferation in childhood enteropathies. *Gut* 1996;39(2):185-193. No prevalence or incidence reported
- Savilahti E, Ormala T, Saukkonen T et al. Jejuna of patients with insulin-dependent diabetes mellitus (IDDM) show signs of immune activation. *Clin Exp Immunol* 1999;116(1):70-77. No prevalence or incidence reported
- Savilahti E, Simell O, Koskimies S et al. Celiac disease in insulin-dependent diabetes mellitus. *Eur J Pediatr* 1986;108(5 Pt 1):690-693. Serology screen <1990
- Savilahti E, Verkasalo M. Intestinal cow's milk allergy: pathogenesis and clinical presentation. *Clin Rev Allergy* 1984;2(1):7-23. No prevalence or incidence reported
- Sawhney I M S, Chopra J S. Occipital seizures and epilepsies in children. *Neurol India* 1994;42(2):92No prevalence or incidence reported

- Scalici C, Manzoni D, Licastro G et al. Celiac disease in the pediatric age, psychological difficulties experienced on the gluten-free diet. A preliminary investigation at the Clinic for Celiac Disease of the "G. Di Cristina" Hospital ARNAS, Palermo, Italy. *Acta Med Mediterr* 2003;19(1):63-66. No prevalence or incidence reported
- Schapira M, Maisin J M, Ghilain J M et al. Epidemiology of coeliac disease. *Acta Gastro-Enterol Belg* 2003;66(3):234-236. Review article
- Schatz D A, Winter W E. Autoimmune polyglandular syndrome II: Clinical syndrome and treatment. *Endocrinol Metab Clin North Am* 2002;31(2):339-352. No prevalence or incidence reported
- Schenker S. Adverse reactions to food. *Nutr Bull* 2002;27(2):125-127. No prevalence or incidence reported
- Schlichting J, Leuschner U. Drug therapy of primary biliary diseases: classical and modern strategies. *J Cell Mol Med* 2001;5(1):98-115. No prevalence or incidence reported
- Schmidt E, Schmidt F W. Clinical aspects of gut enzymology. *Journal of Clinical Chemistry and Clinical Biochemistry. Zeitschrift Fur Klinische Chemie Und Klinische Biochemie* 1979;17(11):693-704. No prevalence or incidence reported
- Schober Edith, Rami Birgit, Granditsch Gerhard et al. Coeliac disease in children and adolescents with type 1 diabetes mellitus: to screen or not, to treat or not?. *Horm Res* 2002;57(Suppl 1):97-100. No prevalence or incidence reported
- Scholz S, Albert E. HLA and diseases: involvement of more than one HLA-linked determinant of disease susceptibility. *Immunol Rev* 1983;7077-88. No prevalence or incidence reported
- Schrumpf E, Abdelnoor M, Fausa O et al. Risk factors in primary sclerosing cholangitis. *J Hepatol* 1994;21(6):1061-1066. No prevalence or incidence reported
- Schuppan D, Ciccocioppo R. Coeliac disease and secondary autoimmunity. *Digestive and Liver Disease - Official Journal of the Italian Society of Gastroenterology and the Italian Association for the Study of the Liver* 2002;34(1):13-15. No prevalence or incidence reported
- Schuppan D, Esslinger B, Dieterich W. Innate immunity and coeliac disease. *Lancet* 2003;362(9377):3-4. No prevalence or incidence reported
- Schuppan D, Hahn E G. Celiac disease and its link to type 1 diabetes mellitus. *Journal of Pediatric Endocrinology & Metabolism - Jpem* 2001;14(Suppl 1):597-605. No prevalence or incidence reported
- Schuppan D, Hahn E G. IgA anti-tissue transglutaminase: setting the stage for coeliac disease screening. *Eur J Gastroenterol Hepatol* 2001;13(6):635-637. No prevalence or incidence reported
- Schuppan Detlef, Hahn Eckhart G. Biomedicine. Gluten and the gut-lessons for immune regulation. *Science* 2002;297(5590):2218-2220. No prevalence or incidence reported
- Schwartz M K, Sleisenger M H, Pert J H et al. The effect of a gluten-free diet on fat, nitrogen, and mineral metabolism in patients with sprue. *Gastroenterology* 1968;54(4):Suppl 791-Suppl 792. No prevalence or incidence reported
- Schweizer J J, Oren A, Mearin M L. Cancer in children with celiac disease: a survey of the European Society of Paediatric Gastroenterology, Hepatology and Nutrition. *J Pediatr Gastroenterol Nutr* 2001;33(1):97-100. No prevalence or incidence reported
- Scolapio J S, Fleming C R, Kelly D G et al. Survival of home parenteral nutrition-treated patients: 20 years of experience at the Mayo Clinic. *Mayo Clin Proc* 1999;74(3):217-222. No prevalence or incidence reported
- Scott B B, Young S, Rajah S M et al. Proceedings: The incidence of coeliac diseases and HL-A8 in dermatitis herpetiformis. *Gut* 1975;16(10):845No prevalence or incidence reported
- Scott E M, Gaywood I, Scott B B. Guidelines for osteoporosis in coeliac disease and inflammatory bowel disease. *British Society of Gastroenterology. Gut* 2000;46(Suppl 1):1-8. No prevalence or incidence reported
- Scott E M, Scott B B. A strategy for osteoporosis in gastroenterology. *Eur J Gastroenterol Hepatol* 1998;10(8):689-696. No prevalence or incidence reported
- Scott F W, Rowsell P, Wang G-S et al. Oral exposure to diabetes-promoting food or immunomodulators in neonates alters gut cytokines and diabetes. *Diabetes* 2002;51(1):73-78. No prevalence or incidence reported
- Scott H W, Law D H, Sandstead H H et al. Jejunoileal shunt in surgical treatment of morbid obesity. *Ann Surg* 1970;171(5):770-782. No prevalence or incidence reported

- Scott H, Ek J, Havnen J et al. Serum antibodies to dietary antigens: a prospective study of the diagnostic usefulness in celiac disease of children. *J Pediatr Gastroenterol Nutr* 1990;11(2):215-220. No prevalence or incidence reported
- Scott H, Fausa O, Ek J et al. Measurements of serum IgA and IgG activities to dietary antigens. A prospective study of the diagnostic usefulness in adult coeliac disease. *Scand J Gastroenterol* 1990;25(3):287-292. No prevalence or incidence reported
- Seah P P, Fry L, Holborow E J et al. Antireticulin antibody: incidence and diagnostic significance. *Gut* 1973;14(4):311-315. No prevalence or incidence reported
- Sedghizadeh Parish P, Shuler Charles F, Allen Carl M et al. Celiac disease and recurrent aphthous stomatitis: a report and review of the literature. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod* 2002;94(4):474-478. No prevalence or incidence reported
- Sela B-A. Homocysteine gets to the brain. *Isr Med Assoc J* 2002;4(3):204-206. No prevalence or incidence reported
- Selby P L, Davies M, Adams J E et al. Bone loss in celiac disease is related to secondary hyperparathyroidism. *Journal of Bone and Mineral Research - the Official Journal of the American Society for Bone and Mineral Research* 1999;14(4):652-657. No prevalence or incidence reported
- Selby R, Barnard J M, Buehler S K et al. Tuberculosis associated with HLA-B8, BfS in a Newfoundland community study. *Tissue Antigens* 1978;11(5):403-408. No prevalence or incidence reported
- Selby W S, Gallagher N D. Malignancy in a 19-year experience of adult celiac disease. *Dig Dis Sci* 1979;24(9):684-688. No prevalence or incidence reported
- Selzer G, Sherman G, Callihan T R et al. Primary small intestinal lymphomas and alpha-heavy-chain disease. A study of 43 cases from a pathology department in Israel. *Isr J Med Sci* 1979;15(2):111-123. No prevalence or incidence reported
- Semrad C E. Bone mass and gastrointestinal disease. *Ann N Y Acad Sci* 2000;904:564-570. No prevalence or incidence reported
- Senarath Yapa R S. Coeliac disease in young and old patients. *J Clin Exp Gerontol* 1991;13(3):95-102. No prevalence or incidence reported
- Sentongo T A, Rutstein R M, Stettler N et al. Association between steatorrhea, growth, and immunologic status in children with perinatally acquired HIV infection. *Arch Pediatr Adolesc Med* 2001;155(2):149-153. No prevalence or incidence reported
- Shah A, Mayberry J F, Williams G et al. Epidemiological survey of coeliac disease and inflammatory bowel disease in first-degree relatives of coeliac patients. *Q J Med* 1990;74(275):283-288. Not a relevant screening test
- Shah V H, Rotterdam H, Kotler D P et al. All that scallops is not celiac disease. *Gastroenterol Int* 2000;51(6):717-720. No prevalence or incidence reported
- Shahbakhani Bijan, Malekzadeh Reza, Sotoudeh Masoud et al. High prevalence of coeliac disease in apparently healthy Iranian blood donors. *Eur J Gastroenterol Hepatol* 2003;15(5):475-478. Not a relevant screening geography
- Shaker J L, Brickner R C, Findling J W et al. Hypocalcemia and skeletal disease as presenting features of celiac disease. *Arch Intern Med* 1997;157(9):1013-1016. No prevalence or incidence reported
- Shaker J L, Magill S B, Lalande B M et al. Endocrine manifestations of celiac disease. *Endocr Pract* 2002;12(2):110-116. No prevalence or incidence reported
- Shaltout A A, Khuffash F A, Hilal A A et al. Pattern of protracted diarrhoea among children in Kuwait. *Ann Trop Paediatr* 1989;9(1):30-32. No prevalence or incidence reported
- Shamir R, Eliakim R, Lahat N et al. ELISA of anti-endomysial antibodies in the diagnosis of celiac disease: Comparison with immunofluorescence assay of anti-endomysial antibodies and tissue transglutaminase antibodies. *Isr Med Assoc J* 2002;4(8):594-596. No prevalence or incidence reported
- Shamir R, Levine A, Yalon-Hacohen M et al. Faecal occult blood in children with coeliac disease. *Eur J Pediatr* 2000;159(11):832-834. No prevalence or incidence reported
- Shamir R, Shoenfeld Y, Blank M et al. The prevalence of coeliac disease antibodies in patients with the antiphospholipid syndrome. *Lupus* 2003;12(5):394-399. No prevalence or incidence reported
- Shamir R. Advances in celiac disease. *Gastroenterol Clin North Am* 2003;32(3):931-947. No prevalence or incidence reported
- Shamir Raanan, Lerner Aaron, Shinar Eilat et al. The use of a single serological marker underestimates the prevalence of celiac disease in Israel: a study of blood

- donors. *Am J Gastroenterol* 2002;97(10):2589-2594. Not a relevant screening geography
- Shanahan F, McKenna R, McCarthy C F et al. Coeliac disease and diabetes mellitus: A study of 24 patients with HLA typing. *Qjm - Monthly Journal of the Association of Physicians* 1982;51(203):329-335. No prevalence or incidence reported
- Shand A G, Ciclitira P J. Celiac disease. *Clin Perspect Gastroenterol* 2002;5(5):277-283. No prevalence or incidence reported
- Shaoul R, Marcon M A, Okada Y et al. Gastric metaplasia: a frequently overlooked feature of duodenal biopsy specimens in untreated celiac disease. *J Pediatr Gastroenterol Nutr* 2000;30(4):397-403. No prevalence or incidence reported
- Sharma B C, Bhasin D K, Makharia G et al. Diagnostic value of push-type enteroscopy: a report from India. *Am J Gastroenterol* 2000;95(1):137-140. No prevalence or incidence reported
- Sheldon W. Prognosis in early adult life of coeliac children treated with a gluten-free diet. *Br Med J* 1969;2(654):401-404. No prevalence or incidence reported
- Shepherd N A, Blackshaw A J, Hall P A et al. Malignant lymphoma with eosinophilia of the gastrointestinal tract. *Histopathology* 1987;11(2):115-130. No prevalence or incidence reported
- Sher K S, Fraser R C, Wicks A C et al. High risk of coeliac disease in Punjabis. Epidemiological study in the south Asian and European populations of Leicestershire. *Digestion* 1993;54(3):178-182. Not a relevant screening geography
- Sher K S, Mayberry J F. Female fertility, obstetric and gynaecological history in coeliac disease. A case control study. *Digestion* 1994;55(4):243-246. No prevalence or incidence reported
- Sher K S, Mayberry J F. Female fertility, obstetric and gynaecological history in coeliac disease: a case control study. *Acta Paediatr* 1996;412(Suppl):76-77. No prevalence or incidence reported
- Sherman S L, Iselius L, Ellis A et al. Combined segregation and linkage analysis of coeliac disease. *Genetic Epidemiology.Supplement* 1986;1283-288. No prevalence or incidence reported
- Sherman S L. Genetic analysis workshop IV: summary for coeliac disease. *Genetic Epidemiology.Supplement* 1986;1(Suppl):271-276. No prevalence or incidence reported
- Shibahara M, Nanko H, Shimizu M et al. Dermatitis herpetiformis in Japan: An update. *Arch Dermatol* 2002;204(1):37-42. No prevalence or incidence reported
- Shidrawi R G, Ciclitira P J. Celiac disease. *Curr Opin Gastroenterol* 1996;12(2):159-163. No prevalence or incidence reported
- Shidrawi R G, Day P, Przemioslo R et al. In vitro toxicity of gluten peptides in coeliac disease assessed by organ culture. *Scand J Gastroenterol* 1995;30(8):758-763. No prevalence or incidence reported
- Shipman R T, Williams A L, Kay R et al. A family study of coeliac disease. *Aust N Z J Med* 1975;5(3):250-255. Serology screen <1990
- Shmerling D H, Franckx J. Childhood celiac disease: a long-term analysis of relapses in 91 patients. *J Pediatr Gastroenterol Nutr* 1986;5(4):565-569. No prevalence or incidence reported
- Sibert J R, Morgan R J H, O'Connell H I et al. Is regional Paediatric Surveillance useful? Experience in Wales. *Arch Dis Child* 2001;84(6):486-487. No prevalence or incidence reported
- Sicherer S H, Mun tilde, Murphy R et al. Symposium: Pediatric food allergy. *Pediatrics* 2003;111(6 III):1591-1594. No prevalence or incidence reported
- Sicherer S H, Sampson H A. Food hypersensitivity and atopic dermatitis: pathophysiology, epidemiology, diagnosis, and management. *J Allergy Clin Immunol* 1999;104(3 Pt 2):S114-S122. No prevalence or incidence reported
- Signer E, Burgin-Wolff A, Berger R et al. Antibodies to gliadin as a screening test for coeliac disease. A prospective study. *Helv Paediatr Acta* 1979;34(1):41-52. No prevalence or incidence reported
- Signore A, Chianelli M, Annovazzi A et al. Imaging active lymphocytic infiltration in coeliac disease with iodine-123-interleukin-2 and the response to diet. *Eur J Nucl Med* 2000;27(1):18-24. No prevalence or incidence reported
- Signore A, Picarelli A, Annovazzi A et al. 123I-Interleukin-2: biochemical characterization and in vivo use for imaging autoimmune diseases. *Nucl Med Commun* 2003;24(3):305-316. No prevalence or incidence reported
- Signore A, Picarelli A, Chianelli M et al. sup 1sup 2sup 3I-Interleukin-2 scintigraphy: A new approach to assess disease activity in autoimmunity. *Journal of Pediatric Endocrinology & Metabolism - Jpem* 1996;9(Suppl 1):139-144. No prevalence or incidence reported
- Sigurgeirsson B, Agnarsson B A, Lindelof B. Risk of lymphoma in patients with dermatitis herpetiformis.

- BMJ 1994;308(6920):13-15. No prevalence or incidence reported
- Sigurs N, Hattevig G, Kjellman B et al. Appearance of atopic disease in relation to serum IgE antibodies in children followed up from birth for 4 to 15 years. *J Allergy Clin Immunol* 1994;94(4):757-763. No prevalence or incidence reported
- Silink M. How should we manage celiac disease in childhood diabetes?. *Pediatr Diabetes* 2001;2(3):95-97. No prevalence or incidence reported
- Silton R P, Fernandez-Caldas E, Trudeau W L et al. Prevalence of specific IgE to the storage mite, *Aleuroglyphus ovatus*. *J Allergy Clin Immunol* 1991;88(4):595-603. No prevalence or incidence reported
- Silva E M, Fernandes M I, Galvao L C et al. Human leukocyte antigen class II alleles in white Brazilian patients with celiac disease. *J Pediatr Gastroenterol Nutr* 2000;31(4):391-394. No prevalence or incidence reported
- Sipetic S, Vlajinac H, Kocev N et al. Family history and risk of type 1 diabetes mellitus. *Acta Diabetol* 2002;39(3):111-115. No prevalence or incidence reported
- Sjoberg K, Lindgren S, Eriksson S. Frequent occurrence of non-specific gliadin antibodies in chronic liver disease. Endomysial but not gliadin antibodies predict coeliac disease in patients with chronic liver disease. *Scand J Gastroenterol* 1997;32(11):1162-1167. No prevalence or incidence reported
- Sjogren A, Floren C H, Nilsson A. Measurements of magnesium in mononuclear cells. *Sci Total Environ* 1985;42(1-2):77-82. No prevalence or incidence reported
- Skeen M B. Neurologic manifestations of gastrointestinal disease. *Neurol Clin* 2002;20(1):195-225. No prevalence or incidence reported
- Skovbjerg H, Sjostrom H, Noren O B. Coeliac disease - A diagnostic and scientific challenge. *Ugeskr Laeg* 2002;164(25):3329-3333. No prevalence or incidence reported
- Skre H, Berg K. Cerebellar ataxia and total albinism: a kindred suggesting pleiotropism or linkage. *Clin Genet* 1974;5(3):196-204. No prevalence or incidence reported
- Smecuol E, Bai J C, Vazquez H et al. Gastrointestinal permeability in celiac disease. *Gastroenterology* 1997;112(4):1129-1136. No prevalence or incidence reported
- Smecuol E, Gonzalez D, Mautalen C et al. Longitudinal study on the effect of treatment on body composition and anthropometry of celiac disease patients. *Am J Gastroenterol* 1997;92(4):639-643. No prevalence or incidence reported
- Smecuol E, Maurino E, Vazquez H et al. Gynaecological and obstetric disorders in coeliac disease: frequent clinical onset during pregnancy or the puerperium. *Eur J Gastroenterol Hepatol* 1996;8(1):63-89. No prevalence or incidence reported
- Smecuol E, Vazquez H, Sugai E et al. Sugar tests detect celiac disease among first-degree relatives. *Am J Gastroenterol* 1999;94(12):3547-3552. No prevalence or incidence reported
- Smith L J, Lacaille F, Lepage G et al. Taurine decreases fecal fatty acid and sterol excretion in cystic fibrosis. A randomized double-blind trial. *Am J Dis Child* 1991;145(12):1401-1404. No prevalence or incidence reported
- Smith R, Phillips A J. Osteoporosis during pregnancy and its management. *Scandinavian Journal of Rheumatology*. Supplement 1998;10766-67. No prevalence or incidence reported
- Smith S E, Littlewood J M. The two-film barium meal in the exclusion of coeliac disease. *Clin Radiol* 1977;28(6):629-634. No prevalence or incidence reported
- Snook J A, Dwyer L, Lee-Elliott C et al. Adult coeliac disease and cigarette smoking. *Gut* 1996;39(1):60-62. No prevalence or incidence reported
- Sokol E M, Brown G M, Frucht H L. Nontropical sprue in siblings with dissimilar, unusual, and severe manifestations. *Gastroenterology* 1969;56(1):117-123. No prevalence or incidence reported
- Sollid L M, Lundin K E. Coeliac disease. An inappropriate immune response. *Lancet* 2001;358(Suppl):s13. No prevalence or incidence reported
- Sollid L M, Markussen G, Ek J et al. Evidence for a primary association of celiac disease to a particular HLA-DQ alpha/beta heterodimer. *J Exp Med* 1989;169(1):345-350. No prevalence or incidence reported
- Sollid L M, Thorsby E. HLA susceptibility genes in celiac disease: genetic mapping and role in pathogenesis. *Gastroenterology* 1993;105(3):910-922. No prevalence or incidence reported
- Sollid L M, Thorsby E. The primary association of celiac disease to a given HLA-DQ alpha/beta heterodimer explains the divergent HLA-DR associations observed in various Caucasian

- populations. *Tissue Antigens* 1990;36(3):136-137. No prevalence or incidence reported
- Sollid L, Bruserud O, Gaudernack G et al. The role of the CD8-positive subset of T cells in proliferative responses to soluble antigens. I. Studies of healthy subjects, type 1 diabetics, and coeliac disease patients. *Scand J Immunol* 1986;23(4):461-467. No prevalence or incidence reported
- Sollid Ludvig M. Coeliac disease: dissecting a complex inflammatory disorder. *Nature Reviews Immunology* 2002;2(9):647-655. No prevalence or incidence reported
- Somech Raz, Spirer Zvi. Celiac disease: extraintestinal manifestations, associated diseases, and complications. *Adv Pediatr* 2002;49:191-201. No prevalence or incidence reported
- Sonwalkar S A, Holbrook I B, Phillips I et al. A prospective, comparative study of the para-aminobenzoic acid test and faecal elastase 1 in the assessment of exocrine pancreatic function. *Aliment Pharmacol Ther* 2003;17(3):467-471. No prevalence or incidence reported
- Sood A, Midha V, Sood N et al. Adult celiac disease in northern India. *Indian J Gastroenterol* 2003;22(4):124-126. No prevalence or incidence reported
- Sorensen H T, Fonager K. Risk estimation of disorders associated with coeliac disease. A 16-year Danish nationwide follow-up study based on hospital discharge data. Implications for screening. *Int J Risk Saf Med* 1996;8(2):137-140. No prevalence or incidence reported
- Sorensen H T, Thulstrup A M, Blomqvist P et al. Risk of primary biliary liver cirrhosis in patients with coeliac disease: Danish and Swedish cohort data. *Gut* 1999;44(5):736-738. No prevalence or incidence reported
- Soresi M, Amplo M, Agliastro R et al. Screening for autoantibodies to tissue transglutaminase reveals a low prevalence of celiac disease in blood donors with cryptogenic hypertransaminasemia. *Digestion* 2001;64(2):87-91. No prevalence or incidence reported
- Souroujon M, Ashkenazi A, Lupo M et al. Serum ferritin levels in celiac disease. *Am J Clin Pathol* 1982;77(1):82-86. No prevalence or incidence reported
- Specker B L. The significance of high bone density in children. *Eur J Pediatr* 2001;139(4):473-475. No prevalence or incidence reported
- Spergel Jonathan M, Beausoleil Janet L, Mascarenhas Maria et al. The use of skin prick tests and patch tests to identify causative foods in eosinophilic esophagitis. *J Allergy Clin Immunol* 2002;109(2):363-368. No prevalence or incidence reported
- Spiller Robin C. Postinfectious irritable bowel syndrome. *Gastroenterology* 2003;124(6):1662-1671. No prevalence or incidence reported
- Spiro H M. About this issue. *J Clin Gastroenterol* 1995;20(4):271. No prevalence or incidence reported
- Spurkland A, Ingvarsson G, Falk E S et al. Dermatitis herpetiformis and celiac disease are both primarily associated with the HLA-DQ (alpha 1\*0501, beta 1\*02) or the HLA-DQ (alpha 1\*03, beta 1\*0302) heterodimers. *Tissue Antigens* 1997;49(1):29-34. No prevalence or incidence reported
- Stahlberg M R, Hietanen E. Glutathione and glutathione-metabolizing enzymes in the erythrocytes of healthy children and in children with insulin-dependent diabetes mellitus, juvenile rheumatoid arthritis, coeliac disease and acute lymphoblastic leukaemia. *Scand J Clin Lab Invest* 1991;51(2):125-130. No prevalence or incidence reported
- Stahlberg M R, Savilahti E, Siimes M A. Iron deficiency in coeliac disease is mild and it is detected and corrected by gluten-free diet. *Acta Paediatr Scand* 1991;80(2):190-193. No prevalence or incidence reported
- Stanner S. Is breast best for the heart?. *Nutr Bull* 2001;26(3):199-200. No prevalence or incidence reported
- Stazi A V, Mantovani A. A risk factor for female fertility and pregnancy: celiac disease. *Gynecological Endocrinology - the Official Journal of the International Society of Gynecological Endocrinology* 2000;14(6):454-463. No prevalence or incidence reported
- Stazi Maria, Antonietta Cotichini, Rodolfo Patriarca et al. The Italian Twin Project: from the personal identification number to a national twin registry. *Twin Research - the Official Journal of the International Society for Twin Studies* 2002;5(5):382-386. No prevalence or incidence reported
- Stein E, Shane E. Secondary osteoporosis. *Endocrinol Metab Clin North Am* 2003;32(1):115-134. No prevalence or incidence reported
- Steinfeld C M, Moertel C G, Woolner L B. Diarrhea and medullary carcinoma of the thyroid. *Cancer* 1973;31(5):1237-1239. No prevalence or incidence reported

- Stenhammar L, Ansved P, Jansson G et al. The incidence of childhood celiac disease in Sweden. *J Pediatr Gastroenterol Nutr* 1987;6(5):707-709. Serology screen <1990
- Stenhammar L, Fallstrom S P, Jansson G et al. Coeliac disease in children of short stature without gastrointestinal symptoms. *Eur J Pediatr* 1986;145(3):185-186. No prevalence or incidence reported
- Stenhammar L, Johansson C G. The incidence of coeliac disease in children in south-east Sweden. *Acta Paediatr Scand* 1981;70(3):379-381. Serology screen <1990
- Stenhammar L. Transient gastro-intestinal disorders during infancy and early childhood. A follow-up study with special reference to coeliac disease. *Acta Paediatr Scand* 1981;70(3):383-387. No prevalence or incidence reported
- Stern M, Bender S W, Gruttner R et al. Serum antibodies against gliadin and reticulin in a family study of coeliac disease. *Eur J Pediatr* 1980;135(1):31-36. No prevalence or incidence reported
- Stern M, Teuscher M, Wechmann T. Serological screening for coeliac disease: methodological standards and quality control. *Acta Paediatr* 1996;412(Suppl):49-51. No prevalence or incidence reported
- Stern M. Comparative evaluation of serologic tests for celiac disease: A European initiative toward standardization. *J Pediatr Gastroenterol Nutr* 2000;31(5):513-519. No prevalence or incidence reported
- Stevens F M, Egan-Mitchell B, Cryan E et al. Decreasing incidence of coeliac disease. *Arch Dis Child* 1987;62(5):465-468. Serology screen <1990
- Stevens F M, Hitchcock H T. Farmer's lung disease and coeliac disease: a prospective study. *Ir J Med Sci* 1977;146(10):335-339. No prevalence or incidence reported
- Stevens F M, Lloyd R S, Geraghty S M et al. Schizophrenia and coeliac disease--the nature of the relationship. *Psychol Med* 1977;7(2):259-263. No prevalence or incidence reported
- Stevens F M, Lloyd R, Egan-Mitchell B et al. Proceedings: Antireticulin antibodies in coeliacs and their relatives. *Gut* 1973;14(10):829. Not a relevant screening test
- Stevens F M, Lloyd R, Egan-Mitchell B et al. Reticulin antibodies in patients with coeliac disease and their relatives. *Gut* 1975;16(8):598-602. Serology screen <1990
- Stevens R F, Meyer S, Fanconi and Glanzmann: The men and their works. *Br J Haematol* 2002;119(4):901-904. No prevalence or incidence reported
- Stewart J. Child coeliacs in adult life. *Ir Med J* 1974;67(15):411-414. No prevalence or incidence reported
- Stocker F, Ammann P, Rossi E. Selective gamma-A-globulin deficiency, with dominant autosomal inheritance in a Swiss family. *Arch Dis Child* 1968;43(231):585-588. No prevalence or incidence reported
- Stockman J A. Clinical facts and curios. *Curr Probl Pediatr* 1992;22(9):413-419. No prevalence or incidence reported
- Stokes P L, Asquith P, Cooke W T. Genetics of coeliac disease. *Clin Gastroenterol* 1973;2(3):547-556. No prevalence or incidence reported
- Stokes P L, Asquith P, Holmes G K et al. Inheritance and influence of histocompatibility (HL-A) antigens in adult coeliac disease. *Gut* 1973;14(8):627-630. No prevalence or incidence reported
- Stokes P L, Asquith P, Waterhouse J H et al. Malignancy in relatives of patients with adult coeliac disease. *Gut* 1972;13(10):836-837. No prevalence or incidence reported
- Stokes P L, Holmes G K, Smits B J. Immunoglobulin levels in families with coeliac disease. *Lancet* 1972;2(7777):608. No prevalence or incidence reported
- Stokes P L, Prior P, Sorahan T M. Malignancy in relatives of patients with coeliac disease. *Br J Prev Soc Med* 1976;30(1):17-21. No prevalence or incidence reported
- Storm W. Prevalence and diagnostic significance of gliadin antibodies in children with Down syndrome. *Eur J Pediatr* 1990;149(12):833-834. No prevalence or incidence reported
- Storsrud S, Olsson M, Arvidsson Lenner R et al. Adult coeliac patients do tolerate large amounts of oats. *Eur J Clin Nutr* 2003;57(1):163-169. No prevalence or incidence reported
- Storsrud Stine, Hulthen Lena R, Lenner Ragnhild A. Beneficial effects of oats in the gluten-free diet of adults with special reference to nutrient status, symptoms and subjective experiences. *Br J Nutr* 2003;90(1):101-107. No prevalence or incidence reported
- Stringer Veysi V T, Puntis J W, Batcup G et al. Gastroduodenal ulcers in the *Helicobacter pylori* era. *Acta Paediatr* 2000;89(10):1181-1185. No prevalence or incidence reported

- Strobel S, Brydon W G, Ferguson A. Cellobiose/mannitol sugar permeability test complements biopsy histopathology in clinical investigation of the jejunum. *Gut* 1984;25(11):1241-1246. No prevalence or incidence reported
- Strobel S, Busuttill A, Ferguson A. Human intestinal mucosal mast cells: expanded population in untreated coeliac disease. *Gut* 1983;24(3):222-227. No prevalence or incidence reported
- Strober W. Genetic and anthropologic factors in gluten-sensitive enteropathy. *Am J Phys Anthropol* 1983;62(1):119-126. No prevalence or incidence reported
- Stromberg L. Diagnostic accuracy of the atopy patch test and the skin-prick test for the diagnosis of food allergy in young children with atopic eczema/dermatitis syndrome. *Acta Paediatr Int J Paediatr* 2002;91(10):1044-1049. No prevalence or incidence reported
- Suarez R M, Suarez R M. Diseases of the digestive system in Puerto Ricans aged 80 and older. *J Am Geriatr Soc* 1967;15(4):383-385. Not a relevant screening geography
- Sugai E, Srur G, Vazquez H et al. Steatocrit: a reliable semiquantitative method for detection of steatorrhea. *J Clin Gastroenterol* 1994;19(3):206-209. No prevalence or incidence reported
- Sugai Emilia, Chernavsky Alejandra, Pedreira Silvia et al. Bone-specific antibodies in sera from patients with celiac disease: characterization and implications in osteoporosis. *J Clin Immunol* 2002;22(6):353-362. No prevalence or incidence reported
- Suharjono. Intestinal biopsy and coeliac disease. *Paediatr Indones* 1971;11(3):116-134. No prevalence or incidence reported
- Suliman G I. Coeliac disease in Sudanese children. *Gut* 1978;19(2):121-125. No prevalence or incidence reported
- Sullivan A. Coeliac disease. *Nursing Standard (Royal College of Nursing (Great Britain) - 1987)* 1999;14(11):48-52. No prevalence or incidence reported
- Suman Shivani, Williams Elizabeth J, Thomas Peter W et al. Is the risk of adult coeliac disease causally related to cigarette exposure?. *Eur J Gastroenterol Hepatol* 2003;15(9):995-1000. No prevalence or incidence reported
- Sumnik Z, Kolouskova S, Cinek O et al. HLA-DQA1\*05-DQB1\*0201 positivity predisposes to coeliac disease in Czech diabetic children. *Acta Paediatr* 2000;89(12):1426-1430. Not a relevant screening geography
- Susi M, Holopainen P, Mustalahti K et al. Candidate gene region 15q26 and genetic susceptibility to coeliac disease in Finnish families. *Scand J Gastroenterol* 2001;36(4):372-374. No prevalence or incidence reported
- Sutton D R, Baird I M, Stewart J S et al. Gastrointestinal iron losses in atrophic gastritis, postgastrectomy states and adult coeliac disease. *Gut* 1971;12(10):869-870. No prevalence or incidence reported
- Sutton D R, Stewart J S, Baird I M et al. "Free" iron loss in atrophic gastritis, post-gastrectomy states, and adult coeliac disease. *Lancet* 1970;2(7669):387-389. No prevalence or incidence reported
- Sutton G. Coeliac disease: Testing the New Zealand iceberg. *New Zealand J Med Lab Sci* 2000;54(2):46-48. No prevalence or incidence reported
- Svedberg P, Johansson S, Wallander M-A et al. Extra-intestinal manifestations associated with irritable bowel syndrome: a twin study. *Aliment Pharmacol Ther* 2002;16(5):975-983. No prevalence or incidence reported
- Svejgaard A, Lobitz W C. HL A histocompatibility antigens and skin diseases. *Br J Dermatol* 1974;91(2):237-241. No prevalence or incidence reported
- Svejgaard A. HLA and disease. *Rev Fr Transfus Immuno-Hematol* 1977;20(1):27-30. No prevalence or incidence reported
- Swerdlow A J, Whittaker S, Carpenter L M et al. Mortality and cancer incidence in patients with dermatitis herpetiformis: a cohort study. *Br J Dermatol* 1993;129(2):140-144. No prevalence or incidence reported
- Swincow G, Chrobot A M, Bala G et al. Comparative analysis of etiologic factors, frequency and diagnostic approach to malabsorption syndrome in two time periods: 1980-1986 and 1994- 1997. *Med Sci Monit* 1999;5(5):891-895. No prevalence or incidence reported
- Swinson C M, Levi A J. Is coeliac disease underdiagnosed?. *Br Med J* 1980;281(6250):1258-1260. No prevalence or incidence reported
- Swinson C M, Slavin G, Coles E C et al. Coeliac disease and malignancy. *Lancet* 1983;1(8316):111-115. No prevalence or incidence reported
- Sylvester F A. Bone abnormalities in gastrointestinal and hepatic disease. *Curr Opin Pediatr*

- 1999;11(5):402-407. No prevalence or incidence reported
- Szaflarska-Szczepanik A, Adamska I, Swincow G et al. Occurrence of allergy symptoms in celiac disease children - Preliminary report. *Med Sci Monit* 1998;4(6):942-944. No prevalence or incidence reported
- Szaflarska-Szczepanik A, Czerwionka-Szaflarska M. The frequency of occurrence and clinical picture of celiac disease in the parents of children with the disease. *Medical Science Monitor - International Medical Journal of Experimental and Clinical Research* 2001;7(5):971-976. Not a relevant screening geography
- Szaflarska-Szczepanik Anna. Assessment of correlation between the presence of antiendomysial antibodies and small intestine mucosal villous atrophy in the diagnostics of celiac disease. *Medical Science Monitor - International Medical Journal of Experimental and Clinical Research* 2002;8(3):Cr185-Cr188. No prevalence or incidence reported
- Szathmari M, Tulassay T, Arato A et al. Bone mineral content and density in asymptomatic children with coeliac disease on a gluten-free diet. *Eur J Gastroenterol Hepatol* 2001;13(4):419-424. No prevalence or incidence reported
- Tabrez S, Roberts I M. Malabsorption and malnutrition. *Prim Care* 2001;28(3):505-22, V. No prevalence or incidence reported
- Taggart D P, Imrie C W. A new pattern of histologic predominance and distribution of malignant diseases of the small intestine. *Surg Gynecol Obstet* 1987;165(6):515-518. No prevalence or incidence reported
- Tai V, Crowe M, O'Keefe S. Celiac disease in older people. *J Am Geriatr Soc* 2000;48(12):1690-1696. No prevalence or incidence reported
- Talstad I, Fretheim B, Myren J et al. Graded gastrectomy for duodenal ulcer -- a five-year prospective study. *Scand J Gastroenterol* 1975;33(Suppl):1-27. No prevalence or incidence reported
- Taminiau J A. Celiac disease. *Curr Opin Pediatr* 1996;8(5):483-486. No prevalence or incidence reported
- Tandon N, Shtauvere-Brameus A, Hagopian W A et al. Prevalence of ICA-12 and other autoantibodies in north Indian patients with early-onset diabetes. *Ann N Y Acad Sci* 2002;958:214-217. No prevalence or incidence reported
- Teahon K, Somasundaram S, Smith T et al. Assessing the site of increased intestinal permeability in coeliac and inflammatory bowel disease. *Gut* 1996;38(6):864-869. No prevalence or incidence reported
- Tedeschi A, Tuccari G, Magazzu G et al. Immunohistochemical localization of lactoferrin in duodenojejunal mucosa from celiac children. *J Pediatr Gastroenterol Nutr* 1987;6(3):328-334. No prevalence or incidence reported
- Tessier J L, Davies G A L. Giardiasis. *Prim Care Update Ob Gyns* 1999;6(1):8-11. No prevalence or incidence reported
- Thain M E, Hamilton J R, Ehrlich R M. Coexistence of diabetes mellitus and celiac disease. *Eur J Pediatr* 1974;85(4):527-529. No prevalence or incidence reported
- Thapa B R. Celiac disease in India. *Indian J Pediatr* 1999;66(1 Suppl):S16-S20. No prevalence or incidence reported
- Thimister P W, Hopman W P, Rosenbusch G et al. Plasma cholecystokinin and gallbladder responses to increasing doses of bombesin in celiac disease. *Dig Dis Sci* 1998;43(3):668-672. No prevalence or incidence reported
- Thirup P. Steatorrhea cannot be excluded where there is a fecal weight below 0.200 kg per day and a high fecal consistency. *Scand J Clin Lab Invest* 1998;58(7):577-583. No prevalence or incidence reported
- Thomas G E, Clain D J. Proceedings: Tropical sprue in Rhodesia. *Gut* 1974;15(10):823. No prevalence or incidence reported
- Thomas P D, Forbes A, Green J et al. Guidelines for the investigation of chronic diarrhoea, 2nd edition. *Gut* 2003;52(Suppl 5):v1-v15. No prevalence or incidence reported
- Thomason K, West J, Logan R F A et al. Fracture experience of patients with coeliac disease: a population based survey. *Gut* 2003;52(4):518-522. No prevalence or incidence reported
- Thompson N P, Montgomery S M, Pounder R E et al. Is measles vaccination a risk factor for inflammatory bowel disease?. *Lancet* 1995;345(8957):1071-1074. No prevalence or incidence reported
- Thompson N P, Montgomery S M, Pounder R E et al. Is measles vaccination a risk factor for inflammatory bowel disease?. *Lancet* 1995;345(8957):1062-1063+1071. No prevalence or incidence reported
- Thomson G. HLA disease associations: models for the study of complex human genetic disorders. *Crit Rev Clin Lab Sci* 1995;32(2):183-219. No prevalence or incidence reported

- Thomson G. Investigation of the mode of inheritance of the HLA associated diseases by the method of antigen genotype frequencies among diseased individuals. *Tissue Antigens* 1983;21(2):81-104. No prevalence or incidence reported
- Thornquist H, Jacobsen G S, Dahl L B et al. Coeliac disease and gluten-free diet: a following-up study of fifteen young adults. *Ann Nutr Metab* 1993;37(6):295-301. No prevalence or incidence reported
- Thorsby E, Lundin K E A, Ronningen K S et al. Molecular and functional aspects of some disease-associated HLA polymorphisms. *Genes and Gene Products in the Development of Diabetes Mellitus: Proceedings of the 3rd Nordisk Insulin Symposium 'genes and Gene Products in the Development of Diabetes Mellitus'* 1989;55-67. No prevalence or incidence reported
- Thorsby E, Lundin K E, Ronningen K S et al. Molecular basis and functional importance of some disease-associated HLA polymorphisms. *Tissue Antigens* 1989;34(1):39-49. No prevalence or incidence reported
- Thorsby E. Invited anniversary review: HLA associated diseases. *Hum Immunol* 1997;53(1):1-11. No prevalence or incidence reported
- Thurley C A, Kwan W C, Freeman H J et al. T cell receptor gene expression and genotypes in celiac disease. *Pathobiology - Journal of Immunopathology, Molecular and Cellular Biology* 1994;62(5-6):311-318. No prevalence or incidence reported
- Tighe M R, Ciclitira P J. The gluten-host interaction. *Bailliere's Clin Gastroenterol* 1995;9(2):211-230. No prevalence or incidence reported
- Tighe M R, Hall M A, Ashkenazi A et al. Celiac disease among Ashkenazi Jews from Israel. A study of the HLA class II alleles and their associations with disease susceptibility. *Hum Immunol* 1993;38(4):270-276. No prevalence or incidence reported
- Tighe M R, Hall M A, Barbado M et al. HLA class II alleles associated with celiac disease susceptibility in a southern European population. *Tissue Antigens* 1992;40(2):90-97. No prevalence or incidence reported
- Tighe M R, Hall M A, Cardi E et al. Associations between alleles of the major histocompatibility complex- encoded ABC transporter gene TAP2, HLA class II alleles, and celiac disease susceptibility. *Hum Immunol* 1994;39(1):9-16. No prevalence or incidence reported
- Tighe R, Ciclitira P J. Celiac disease. *Curr Opin Gastroenterol* 1995;11(2):112-115. No prevalence or incidence reported
- Tighe R, Ciclitira P J. Molecular biology of coeliac disease. *Arch Dis Child* 1995;73(3):189-191. No prevalence or incidence reported
- Tiwari J L, Betuel H, Gebuhrer L et al. Genetic epidemiology of coeliac disease. *Genet Epidemiol* 1984;1(1):37-42. No prevalence or incidence reported
- Toffolon E P, Goldfinger S E. Malabsorption following gastrectomy and ileal resection. *Surg Clin North Am* 1974;54(3):647-653. No prevalence or incidence reported
- Tomei E, Marini M, Messineo D et al. Computed tomography of the small bowel in adult celiac disease: the jejunoileal fold pattern reversal. *Eur Radiol* 2000;10(1):119-122. No prevalence or incidence reported
- Tomkin G H, Mawhinney M, Nevin N C. Isolated absence of IgA with autosomal dominant inheritance. *Lancet* 1971;2(7716):124-125. No prevalence or incidence reported
- Torinsson Nalwai A, Nilsson S, Samuelsson L et al. The CTLA4/CD28 gene region on chromosome 2q33 confers susceptibility to celiac disease in a way possibly distinct from that of type 1 diabetes and other chronic inflammatory disorders. *Tissue Antigens* 2000;56(4):350-355. No prevalence or incidence reported
- Toskes P P, Dawson W, Curington C et al. Non-diabetic retinal abnormalities in chronic pancreatitis. *N Engl J Med* 1979;300(17):942-946. No prevalence or incidence reported
- Tovey F I, Godfrey J E, Lewin M R. A gastrectomy population: 25-30 years on. *Postgrad Med J* 1990;66(776):450-456. No prevalence or incidence reported
- Trabace S, Giunta A, Rosso M et al. HLA-ABC and DR antigens in celiac disease. A study in a pediatric Italian population. *Vox Sang* 1984;46(2):102-106. No prevalence or incidence reported
- Tran T M, Van den, Neucker A et al. Effects of a proton-pump inhibitor in cystic fibrosis. *Acta Paediatr* 1998;87(5):553-558. No prevalence or incidence reported
- Trejdosiewicz L K, Calabrese A, Smart C J et al. Gamma delta T cell receptor-positive cells of the human gastrointestinal mucosa: occurrence and V region gene expression in *Helicobacter pylori*-associated gastritis, celiac disease and inflammatory

- bowel disease. *Clin Exp Immunol* 1991;84(3):440-444. No prevalence or incidence reported
- Trevisiol C, Ventura A, Baldas V et al. A reliable screening procedure for coeliac disease in clinical practice. *Scand J Gastroenterol* 2002;37(6):679-684. Not a relevant screening group
- Triolo G, Accardo-Palumbo A, Dieli F et al. Humoral and cell mediated immune response to cow's milk proteins in Behcet's disease. *Ann Rheum Dis* 2002;61(5):459-462. No prevalence or incidence reported
- Tripp E J, MacKay E H. Silver staining of bone prior to decalcification for quantitative determination of osteoid in sections. *Stain Technol* 1972;47(3):129-136. No prevalence or incidence reported
- Troncone R, Greco L, Auricchio S. Gluten-sensitive enteropathy. *Pediatr Clin North Am* 1996;43(2):355-373. No prevalence or incidence reported
- Troncone R, Greco L, Auricchio S. The controversial epidemiology of coeliac disease. *Acta Paediatr* 2000;89(2):140-141. No prevalence or incidence reported
- Troncone R, Greco L, Mayer M et al. In siblings of celiac children, rectal gluten challenge reveals gluten sensitization not restricted to celiac HLA. *Gastroenterology* 1996;111(2):318-324. No prevalence or incidence reported
- Troncone R, Mayer M, Spagnuolo F et al. Endomysial antibodies as unreliable markers for slight dietary transgressions in adolescents with celiac disease. *J Pediatr Gastroenterol Nutr* 1995;21(1):69-72. No prevalence or incidence reported
- Troncone R, Mazzarella G, Leone N et al. Gliadin activates mucosal cell mediated immunity in cultured rectal mucosa from coeliac patients and a subset of their siblings. *Gut* 1998;43(4):484-489. No prevalence or incidence reported
- Troncone Riccardo, Franzese Adriana, Mazzarella Giuseppe et al. Gluten sensitivity in a subset of children with insulin dependent diabetes mellitus. *Am J Gastroenterol* 2003;98(3):590-595. No prevalence or incidence reported
- Tumer L, Hasanoglu A, Aybay C. Endomysium antibodies in the diagnosis of celiac disease in short-statured children with no gastrointestinal symptoms. *Pediatrics International - Official Journal of the Japan Pediatric Society* 2001;43(1):71-73. No prevalence or incidence reported
- Turner J M, Lawrence S, Fellows I W et al. [14C]-triolein absorption: a useful test in the diagnosis of malabsorption. *Gut* 1987;28(6):694-700. No prevalence or incidence reported
- Turowski G, Ke cedil. Soluble HLA class I antigens as a familial genetic background in coeliac disease. *Cent-Eur J Immunol* 2001;26(1):28-30. No prevalence or incidence reported
- Tursi A, Brandimarte G, Giorgetti G et al. Low prevalence of antigliadin and anti-endomysium antibodies in subclinical/silent celiac disease. *Am J Gastroenterol* 2001;96(5):1507-1510. No prevalence or incidence reported
- Tursi A, Brandimarte G, Giorgetti G M. Sorbitol H2-breath test versus anti-endomysium antibodies for the diagnosis of subclinical/silent coeliac disease. *Scand J Gastroenterol* 2001;36(11):1170-1172. No prevalence or incidence reported
- Tursi A, Giorgetti G, Brandimarte G et al. Prevalence and clinical presentation of subclinical/silent celiac disease in adults: an analysis on a 12-year observation. *Hepatogastroenterology* 2001;48(38):462-464. No prevalence or incidence reported
- Tursi Antonio, Brandimarte Giovanni, Giorgetti Gian et al. Prevalence of antitissue transglutaminase antibodies in different degrees of intestinal damage in celiac disease. *J Clin Gastroenterol* 2003;36(3):219-221. No prevalence or incidence reported
- Tursi Antonio, Brandimarte Giovanni, Giorgetti GianMarco. High prevalence of small intestinal bacterial overgrowth in celiac patients with persistence of gastrointestinal symptoms after gluten withdrawal. *Am J Gastroenterol* 2003;98(4):839-843. No prevalence or incidence reported
- Tursi Antonio, Brandimarte Giovanni. The symptomatic and histologic response to a gluten-free diet in patients with borderline enteropathy. *J Clin Gastroenterol* 2003;36(1):13-17. No prevalence or incidence reported
- Tuysuz B, Dursun A, Kutlu T et al. HLA-DQ alleles in patients with celiac disease in Turkey. *Tissue Antigens* 2001;57(6):540-542. No prevalence or incidence reported
- Uibo O, Maaros H I. Hospital screening of coeliac disease in Estonian children by anti-gliadin antibodies of IgA class. *Acta Paediatr* 1993;82(3):233-234. No prevalence or incidence reported
- Uibo O, Metskula K, Kukk T et al. Results of coeliac disease screening in Estonia in 1990-1994. *Acta Paediatr* 1996;412(Suppl):39-41. Not a relevant screening geography
- Uibo O, Uibo R, Kleimola V et al. Serum IgA anti-gliadin antibodies in an adult population sample. High

- prevalence without celiac disease. *Dig Dis Sci* 1993;38(11):2034-2037. Not a relevant screening geography
- Uibo O. Childhood celiac disease in Estonia: efficacy of the IgA-class antigliadin antibody test in the search for new cases. *J Pediatr Gastroenterol Nutr* 1994;18(1):53-55. Not a relevant screening geography
- Uibo R, Sullivan E P, Uibo O et al. Comparison of the prevalence of glutamic acid decarboxylase (GAD65) and gliadin antibodies (AGA) in a randomly selected adult estonian population. *Hormone and Metabolic Research.Hormon- Und Stoffwechselforschung.Hormones Et Metabolisme* 2001;33(9):564-567. No prevalence or incidence reported
- Uil J J, van Elburg R M, Janssens P M et al. Sensitivity of a hyperosmolar or "low"-osmolar test solution for sugar absorption in recognizing small intestinal mucosal damage in coeliac disease. *Digestive and Liver Disease - Official Journal of the Italian Society of Gastroenterology and the Italian Association for the Study of the Liver* 2000;32(3):195-200. No prevalence or incidence reported
- Uil J J, van Elburg R M, Mulder C J et al. The value of the D-xylose test compared with the differential sugar absorption test in recognizing coeliac disease. *Neth J Med* 1996;49(2):68-72. No prevalence or incidence reported
- Uil J J, van Elburg R M, van Overbeek F M et al. Follow-up of treated coeliac patients: sugar absorption test and intestinal biopsies compared. *Eur J Gastroenterol Hepatol* 1996;8(3):219-223. No prevalence or incidence reported
- umnik Z, Kolous caron, Cinek O et al. HLA - DQA1\*05-DQB1\*0201 positivity predisposes to coeliac disease in Czech diabetic children. *Acta Paediatr Int J Paediatr* 2000;89(12):1426-1430. No prevalence or incidence reported
- Ung K A, Kilander A F, Lindgren A et al. Impact of bile acid malabsorption on steatorrhoea and symptoms in patients with chronic diarrhoea. *Eur J Gastroenterol Hepatol* 2000;12(5):541-547. No prevalence or incidence reported
- Unsworth D J, Brown D L. Serological screening suggests that adult coeliac disease is underdiagnosed in the UK and increases the incidence by up to 12%. *Gut* 1994;35(1):61-64. Not a relevant screening test
- Usai P, Bassotti G, Satta P et al. Oesophageal motility in adult coeliac disease. *Neurogastroenterol Motil* 1995;7(4):239-244. No prevalence or incidence reported
- Usai P, Boi M F, Piga M et al. Adult celiac disease is frequently associated with sacroiliitis. *Dig Dis Sci* 1995;40(9):1906-1908. No prevalence or incidence reported
- Usai P, Minerba L, Marini B et al. Case control study on health-related quality of life in adult coeliac disease. *Digestive and Liver Disease - Official Journal of the Italian Society of Gastroenterology and the Italian Association for the Study of the Liver* 2002;34(8):547-552. No prevalence or incidence reported
- Ussher R, Yeong M L, Stace N. Coeliac disease: incidence and prevalence in Wellington 1985-92. *N Z Med J* 1994;107(978):195-197. Not a relevant screening geography
- Vader Willemijn, Kooy Yvonne, Van Veelen et al. The gluten response in children with celiac disease is directed toward multiple gliadin and glutenin peptides. *Gastroenterology* 2002;122(7):1729-1737. No prevalence or incidence reported
- Vahedi Kouroche, Mascart Francoise, Mary Jean et al. Reliability of antitransglutaminase antibodies as predictors of gluten-free diet compliance in adult coeliac disease. *Am J Gastroenterol* 2003;98(5):1079-1087. No prevalence or incidence reported
- Vaknin-Dembinsky A, Eliakim R, Steiner I. Neurological deficits in patients with celiac disease. *Arch Neurol* 2002;59(4):647-648. No prevalence or incidence reported
- Valdimarsson T, Lofman O, Toss G et al. Reversal of osteopenia with diet in adult coeliac disease. *Gut* 1996;38(3):322-327. No prevalence or incidence reported
- Valdimarsson T, Toss G, Lofman O et al. Three years' follow-up of bone density in adult coeliac disease: significance of secondary hyperparathyroidism. *Scand J Gastroenterol* 2000;35(3):274-280. No prevalence or incidence reported
- Valdimarsson T, Toss G, Ross I et al. Bone mineral density in coeliac disease. *Scand J Gastroenterol* 1994;29(5):457-461. No prevalence or incidence reported
- Valentine R J, Martin J D, Myers S I et al. Asymptomatic celiac and superior mesenteric artery stenoses are more prevalent among patients with unsuspected renal artery stenoses. *Journal of Vascular Surgery - Official Publication, the Society for Vascular Surgery and International Society for Cardiovascular Surgery, North American Chapter* 1991;14(2):195-199. No prevalence or incidence reported

- Valentini R A, Andreani M L, Corazza G R et al. IgA endomysium antibody: a valuable tool in the screening of coeliac disease but not its follow-up. *Ital J Gastroenterol* 1994;26(6):279-282. No prevalence or incidence reported
- Valentino R, Savastano S, Tommaselli A P et al. Prevalence of coeliac disease in patients with thyroid autoimmunity. *Horm Res* 1999;51(3):124-127. No prevalence or incidence reported
- Valentino Rossella, Savastano Silvia, Maglio Maria et al. Markers of potential coeliac disease in patients with Hashimoto's thyroiditis. *Eur J Endocrinol* 2002;146(4):479-483. No prevalence or incidence reported
- Valleta E A, Mastella G. Incidence of celiac disease in a cystic fibrosis population. *Acta Paediatr Scand* 1989;78(5):784-785. No prevalence or incidence reported
- Valletta E A, Trevisiol D, Mastella G. IgA anti-gliadin antibodies in the monitoring of gluten challenge in celiac disease. *J Pediatr Gastroenterol Nutr* 1990;10(2):169-173. No prevalence or incidence reported
- Valman H B. Proceedings: Diet and growth after resection of ileum in childhood. *Gut* 1974;15(10):822. No prevalence or incidence reported
- van Belzen M J, Mulder C J, Pearson P L et al. The tissue transglutaminase gene is not a primary factor predisposing to celiac disease. *Am J Gastroenterol* 2001;96(12):3337-3340. No prevalence or incidence reported
- Van Cutsem E, Vantrappen G. Epidemiology and clinical aspects of esophageal cancer. *J Belge Radiol* 1991;74(5):365-368. No prevalence or incidence reported
- van den, Boom S A, Kimber A C et al. Weaning practices in children up to 19 months of age in Madrid. *Acta Paediatr* 1995;84(8):853-858. No prevalence or incidence reported
- van den, Bosch H C, Tham R T et al. Celiac disease: small-bowel enteroclysis findings in adult patients treated with a gluten-free diet. *Radiology* 1996;201(3):803-808. No prevalence or incidence reported
- Van den, Neucker A, Pestel N et al. Clinical use of acid steatocrit. *Acta Paediatr* 1997;86(5):466-469. No prevalence or incidence reported
- Van der, Vliet H J J, Von Blomberg B M E et al. Circulating Valpha24SUP+ Vbeta11SUP+ NKT cell numbers are decreased in a wide variety of diseases that are characterized by autoreactive tissue damage. *Clin Immunol* 2001;100(2):144-148. No prevalence or incidence reported
- van Elburg R M, Uil J J, Mulder C J et al. Intestinal permeability in patients with coeliac disease and relatives of patients with coeliac disease. *Gut* 1993;34(3):354-357. No prevalence or incidence reported
- van Overbeek F M, Uil-Dieterman I G, Mol I W et al. The daily gluten intake in relatives of patients with coeliac disease compared with that of the general Dutch population. *Eur J Gastroenterol Hepatol* 1997;9(11):1097-1099. No prevalence or incidence reported
- van Stirum J, Baerlocher K, Fanconi A et al. The incidence of coeliac disease in children in Switzerland. *Helv Paediatr Acta* 1982;37(5):421-430. Serology screen <1990
- Van Wouwe J P. Clinical and laboratory diagnosis of acrodermatitis enteropathica. *Eur J Pediatr* 1989;149(1):2-8. No prevalence or incidence reported
- Vancikova Z, Chlumecky V, Sokol D et al. The serologic screening for celiac disease in the general population (blood donors) and in some high-risk groups of adults (patients with autoimmune diseases, osteoporosis and infertility) in the Czech republic. *Folia Microbiol (Praha)* 2002;47(6):753-758. Not a relevant screening geography
- Vanelli M, de Fanti A, Adinolfi B et al. Clinical data regarding the growth of diabetic children. *Horm Res* 1992;37(Suppl 3):65-69. No prevalence or incidence reported
- Varkonyi A, Boda M, Endreffy E et al. Coeliac disease: always something to discover. *Scandinavian Journal of Gastroenterology, Supplement* 1998;228:122-129. No prevalence or incidence reported
- Varma S, Malhotra P, Kochhar R et al. Celiac disease presenting as iron-deficiency anemia in northern India. *Indian Journal of Gastroenterology - Official Journal of the Indian Society of Gastroenterology* 2001;20(6):234-236. Not a relevant screening geography
- Vartdal F, Johansen B H, Friede T et al. The peptide binding motif of the disease associated HLA-DQ (alpha 1\* 0501, beta 1\* 0201) molecule. *Eur J Immunol* 1996;26(11):2764-2772. No prevalence or incidence reported
- Vasquez H, Mazure R, Gonzalez D et al. Risk of fractures in celiac disease patients: a cross-sectional, case-control study. *Am J Gastroenterol* 2000;95(1):183-189. No prevalence or incidence reported

- Vazquez H, Cabanne A, Sugai E et al. Serological markers identify histologically latent coeliac disease among first-degree relatives. *Eur J Gastroenterol Hepatol* 1996;8(1):15-21. Not a relevant screening geography
- Vazquez H, Smecuol E, Flores D et al. Relation between cigarette smoking and celiac disease: evidence from a case-control study. *Am J Gastroenterol* 2001;96(3):798-802. No prevalence or incidence reported
- Vazquez H, Sugai E, Pedreira S et al. Screening for asymptomatic celiac sprue in families. *J Clin Gastroenterol* 1995;21(2):130-133. No prevalence or incidence reported
- Vecchi M, Bianchi M B, Sinico R A et al. Antibodies to neutrophil cytoplasm in Italian patients with ulcerative colitis: sensitivity, specificity and recognition of putative antigens. *Digestion* 1994;55(1):34-39. No prevalence or incidence reported
- Vecchi M, Folli C, Donato M F et al. High rate of positive anti-tissue transglutaminase antibodies in chronic liver disease. Role of liver decompensation and of the antigen source. *Scand J Gastroenterol* 2003;38(1):50-54. No prevalence or incidence reported
- Veitch A M, Kelly P, Zulu I S et al. Tropical enteropathy: a T-cell-mediated crypt hyperplastic enteropathy. *Eur J Gastroenterol Hepatol* 2001;13(10):1175-1181. No prevalence or incidence reported
- Velluzzi F, Caradonna A, Boy M F et al. Thyroid and celiac disease: clinical, serological, and echographic study. *Am J Gastroenterol* 1998;93(6):976-979. No prevalence or incidence reported
- Ventura A, Magazzu G, Greco L. Duration of exposure to gluten and risk for autoimmune disorders in patients with celiac disease. *SIGEP Study Group for Autoimmune Disorders in Celiac Disease. Gastroenterology* 1999;117(2):297-303. No prevalence or incidence reported
- Ventura A, Neri E, Ughi C et al. Gluten-dependent diabetes-related and thyroid-related autoantibodies in patients with celiac disease. *Eur J Pediatr* 2000;137(2):263-265. No prevalence or incidence reported
- Venturini I, Cosenza R, Miglioli L et al. Adult celiac disease and primary sclerosing cholangitis: two case reports. *Hepatogastroenterology* 1998;45(24):2344-2347. No prevalence or incidence reported
- Verge C F, Howard N J, Rowley M J et al. Anti-glutamate decarboxylase and other antibodies at the onset of childhood IDDM: a population-based study. *Diabetologia* 1994;37(11):1113-1120. No prevalence or incidence reported
- Verkarre V, Asnafi V, Lecomte T et al. Refractory coeliac sprue is a diffuse gastrointestinal disease. *Gut* 2003;52(2):205-211. No prevalence or incidence reported
- Verkasalo M, Kuitunen P, Leisti S et al. Growth failure from symptomless celiac disease. A study of 14 patients. *Helv Paediatr Acta* 1978;33(6):489-495. No prevalence or incidence reported
- Verkasalo M, Kuitunen P, Savilahti E et al. Changing pattern of cow's milk intolerance. An analysis of the occurrence and clinical course in the 60s and mid-70s. *Acta Paediatr Scand* 1981;70(3):289-295. No prevalence or incidence reported
- Vermeer B J, Lindeman J, Harst-Oostveen C J et al. The immunoglobulin-bearing cells in the lamina propria and the clinical response to a gluten-free diet in dermatitis herpetiformis. *Archives for Dermatological Research. Archiv Fur Dermatologische Forschung* 1977;258(3):223-230. No prevalence or incidence reported
- Vestergaard Peter, Mosekilde Leif. Fracture risk in patients with celiac Disease, Crohn's disease, and ulcerative colitis: a nationwide follow-up study of 16,416 patients in Denmark. *Am J Epidemiol* 2002;156(1):1-10. No prevalence or incidence reported
- Vestergaard Peter. Bone loss associated with gastrointestinal disease: prevalence and pathogenesis. *Eur J Gastroenterol Hepatol* 2003;15(8):851-856. No prevalence or incidence reported
- Veyrieres M, Baillet P, Hay J M et al. Factors influencing long-term survival in 100 cases of small intestine primary adenocarcinoma. *Am J Surg* 1997;173(3):237-239. No prevalence or incidence reported
- Visakorpi J K, Kuitunen P, Savilahti E. Frequency and nature of relapses in children suffering from the malabsorption syndrome with gluten intolerance. *Acta Paediatr Scand* 1970;59(5):481-486. No prevalence or incidence reported
- Visser M, Doekes G, Heederik D. Exposure to wheat allergen and fungal alpha-amylase in the homes of bakers. *Clinical and Experimental Allergy - Journal of the British Society for Allergy and Clinical Immunology* 2001;31(10):1577-1582. No prevalence or incidence reported
- Viteri F E, Schneider R E. Gastrointestinal alterations in protein-calorie malnutrition. *Med Clin North Am*

- 1974;58(6):1487-1505. No prevalence or incidence reported
- Vivas Santiago, Ruiz de, Morales Jose M et al. Human recombinant anti-transglutaminase antibody testing is useful in the diagnosis of silent coeliac disease in a selected group of at-risk patients. *Eur J Gastroenterol Hepatol* 2003;15(5):479-483. No prevalence or incidence reported
- Vjero K, Martucci S, Alvisi C et al. Defining a proper setting for endoscopy in coeliac disease. *Eur J Gastroenterol Hepatol* 2003;15(6):675-678. No prevalence or incidence reported
- Vlissides D N, Venulet A, Jenner F A. A double-blind gluten-free/gluten-load controlled trial in a secure ward population. *Br J Psychiatry* 1986;148:447-452. No prevalence or incidence reported
- Vogelsang H, Oberhuber G, Wyatt J. Lymphocytic gastritis and gastric permeability in patients with celiac disease. *Gastroenterology* 1996;111(1):73-77. No prevalence or incidence reported
- Vogelsang H, Schwarzenhofer M, Granditsch G et al. In vitro production of endomysial antibodies in cultured duodenal mucosa from patients with celiac disease. *Am J Gastroenterol* 1999;94(4):1057-1061. No prevalence or incidence reported
- Vogelsang H, Schwarzenhofer M, Oberhuber G. Changes in gastrointestinal permeability in celiac disease. *Dig Dis* 1998;16(6):333-336. No prevalence or incidence reported
- Vogelsang H, Schwarzenhofer M, Steiner B et al. In vivo and in vitro permeability in coeliac disease. *Aliment Pharmacol Ther* 2001;15(9):1417-1425. No prevalence or incidence reported
- Vogelsang H, Suk E K, Janisiw M et al. Calcaneal ultrasound attenuation and vitamin-D-receptor genotypes in celiac disease. *Scand J Gastroenterol* 2000;35(2):172-176. No prevalence or incidence reported
- Vogelsang H, Wyatt J, Penner E et al. Screening for celiac disease in first-degree relatives of patients with celiac disease by lactulose/mannitol test. *Am J Gastroenterol* 1995;90(10):1838-1842. Not a relevant screening test
- Vogelsang H. The changing features of celiac disease. Preface. *Dig Dis* 1998;16(6):328-329. No prevalence or incidence reported
- Vogelsang Harald, Panzer Simon, Mayr Wolfgang R et al. Distribution of HLA class I alleles differs in celiac disease patients according to age of onset. *Dig Dis Sci* 2003;48(3):611-614. No prevalence or incidence reported
- Volta U, Bonazzi C, Baldoni A M et al. Clinical presentation of adult coeliac disease. *Ann Med Interne (Paris)* 1988;139(2):123-124. No prevalence or incidence reported
- Volta U, Bonazzi C, Pisi E et al. Antigliadin and antireticulin antibodies in coeliac disease and at onset of diabetes in children. *Lancet* 1987;2(8566):1034-1035. No prevalence or incidence reported
- Volta U, De Franceschi L, Lari F et al. Coeliac disease hidden by cryptogenic hypertransaminasaemia. *Lancet* 1998;352(9121):26-29. No prevalence or incidence reported
- Volta U, De Franceschi L, Molinaro N et al. Frequency and significance of anti-gliadin and anti-endomysial antibodies in autoimmune hepatitis. *Dig Dis Sci* 1998;43(10):2190-2195. No prevalence or incidence reported
- Volta U, De Franceschi L, Molinaro N et al. Organ-specific autoantibodies in coeliac disease: do they represent an epiphenomenon or the expression of associated autoimmune disorders?. *Ital J Gastroenterol Hepatol* 1997;29(1):18-21. No prevalence or incidence reported
- Volta U, De Giorgio R, Petrolini N et al. Clinical findings and anti-neuronal antibodies in coeliac disease with neurological disorders. *Scand J Gastroenterol* 2002;37(11):1276-1281. No prevalence or incidence reported
- Volta U, Granito A, De Franceschi L et al. Anti tissue transglutaminase antibodies as predictors of silent coeliac disease in patients with hypertransaminasaemia of unknown origin. *Digestive and Liver Disease - Official Journal of the Italian Society of Gastroenterology and the Italian Association for the Study of the Liver* 2001;33(5):420-425. No prevalence or incidence reported
- Volta U, Lenzi M, Lazzari R et al. Antibodies to gliadin detected by immunofluorescence and a micro-ELISA method: markers of active childhood and adult coeliac disease. *Gut* 1985;26(7):667-671. No prevalence or incidence reported
- Volta U, Molinaro N, De Franceschi L et al. Human umbilical cord as substrate for IgA antiendomysial antibodies allows large scale screening for celiac sprue. *J Clin Gastroenterol* 1996;23(1):18-20. Not a relevant screening group
- Volta U, Molinaro N, De Franceschi L et al. IgA anti-endomysial antibodies on human umbilical cord tissue for celiac disease screening. Save both money and monkeys. *Dig Dis Sci* 1995;40(9):1902-1905. No prevalence or incidence reported

- Volta U, Ravaglia G, Granito A et al. Coeliac disease in patients with autoimmune thyroiditis. *Digestion* 2001;64(1):61-65. No prevalence or incidence reported
- Volta Umberto, Rodrigo Luis, Granito Alessandro et al. Coeliac disease in autoimmune cholestatic liver disorders. *Am J Gastroenterol* 2002;97(10):2609-2613. No prevalence or incidence reported
- Von Muhlendahl K E, Herkenhoff H. Long-term course of neonatal diabetes. *N Engl J Med* 1995;333(11):704-708. No prevalence or incidence reported
- von Tirpitz, Christian Reinshagen, Max. Management of osteoporosis in patients with gastrointestinal diseases. *Eur J Gastroenterol Hepatol* 2003;15(8):869-876. No prevalence or incidence reported
- Wahab P J, Hopman W P, Jansen J B. Basal and fat-stimulated plasma peptide YY levels in celiac disease. *Dig Dis Sci* 2001;46(11):2504-2509. No prevalence or incidence reported
- Wahab P J, Meijer J W R, Goerres M S et al. Coeliac disease: changing views on gluten-sensitive enteropathy. *Scandinavian Journal of Gastroenterology. Supplement* 2002;(236):60-65. No prevalence or incidence reported
- Wahab Peter J, Meijer Jos W R, Dumitra Daniela et al. Coeliac disease: more than villous atrophy. *Rom J Gastroenterol* 2002;11(2):121-127. No prevalence or incidence reported
- Wahab Peter J, Meijer Jos W R, Mulder Chris J J. Histologic follow-up of people with celiac disease on a gluten-free diet: slow and incomplete recovery. *Am J Clin Pathol* 2002;118(3):459-463. No prevalence or incidence reported
- Walker W A. Immunology: Editorial overview. *Curr Opin Gastroenterol* 1991;7(3):418-420. No prevalence or incidence reported
- Walker-Smith J A, Grigor W. Coeliac disease in a diabetic child. *Lancet* 1969;1(7603):1021. No prevalence or incidence reported
- Walker-Smith J A, Reye R D. Small intestinal morphology in aboriginal children. *Aust N Z J Med* 1971;1(4):377-384. No prevalence or incidence reported
- Walker-Smith J A, Talley N A. Coeliac disease and dermatitis herpetiformis. *Med J Aust* 1973;1(1):10-12. No prevalence or incidence reported
- Walker-Smith J A, Vines R, Grigor W. Coeliac disease and diabetes. *Lancet* 1969;2(7621):650. No prevalence or incidence reported
- Walker-Smith J A. Coeliac disease and Down syndrome. *Eur J Pediatr* 2000;137(6):743-744. No prevalence or incidence reported
- Walker-Smith J A. Coeliac disease in children of Asian immigrants. *Lancet* 1973;1(7800):428. No prevalence or incidence reported
- Walker-Smith J A. Diabetes and coeliac disease. *Lancet* 1969;2(7634):1366. No prevalence or incidence reported
- Walmsley R S, Ibbotson J P, Chahal H et al. Antibodies against *Mycobacterium paratuberculosis* in Crohn's disease. *Qjm - Monthly Journal of the Association of Physicians* 1996;89(3):217-221. No prevalence or incidence reported
- Walsh C H, Cooper B T, Wright A D et al. Diabetes mellitus and coeliac disease: a clinical study. *Q J Med* 1978;47(185):89-100. No prevalence or incidence reported
- Walsh D. Coeliac disease and schizophrenia. *Br Med J* 1973;2(5860):242. No prevalence or incidence reported
- Walsh S V, Egan L J, Connolly C E et al. Enteropathy-associated T-cell lymphoma in the West of Ireland: low-frequency of Epstein-Barr virus in these tumors. *Modern Pathology - an Official Journal of the United States and Canadian Academy of Pathology, Inc* 1995;8(7):753-757. No prevalence or incidence reported
- Walters J R F, Banks L M, Butcher G P et al. Detection of low bone mineral density by dual energy x ray absorptiometry in unsuspected suboptimally treated coeliac disease. *Gut* 1995;37(2):220-224. No prevalence or incidence reported
- Walters J R. Bone mineral density in coeliac disease. *Gut* 1994;35(2):150-151. No prevalence or incidence reported
- Warngard O, Stenhammar L, Ascher H et al. Small bowel biopsy in Swedish paediatric clinics. *Acta Paediatr* 1996;85(2):240-241. No prevalence or incidence reported
- Wasmuth H E, Matern S. Nutrition in childhood and immune-mediated diseases. *Ann Nestle* 2002;60(1):22-31. No prevalence or incidence reported
- Weile B, Cavell B, Nivenius K et al. Striking differences in the incidence of childhood celiac disease between Denmark and Sweden: a plausible explanation. *J Pediatr Gastroenterol Nutr* 1995;21(1):64-68. Serology screen <1990
- Weile B, Krasilnikoff P A. Low incidence rates by birth of symptomatic coeliac disease in a Danish

- population of children. *Acta Paediatr* 1992;81(5):394-398. Serology screen <1990
- Weile B. Aspects of classic symptomatic childhood coeliac disease in Denmark: Retrospectively illustrated by local, regional, and national studies. *APMIS Suppl* 2003;111(113):5-46. Review article
- Weile Birgitte, Heegaard Niels H H, Hoier-Madsen Mimi et al. Tissue transglutaminase and endomysial autoantibodies measured in an historical cohort of children and young adults in whom coeliac disease was suspected. *Eur J Gastroenterol Hepatol* 2002;14(1):71-76. No prevalence or incidence reported
- Weinstein W M, Brow J R, Parker F et al. The small intestinal mucosa in dermatitis herpetiformis. II. Relationship of the small intestinal lesion to gluten. *Gastroenterology* 1971;60(3):362-369. No prevalence or incidence reported
- Weir D G, Hourihane D O. Coeliac disease during the teenage period: the value of serial serum folate estimations. *Gut* 1974;15(6):450-457. No prevalence or incidence reported
- Weir D G. The pathogenesis of folic acid deficiency in man. *Ir J Med Sci* 1974;143(1):3-20. No prevalence or incidence reported
- Weizman Z, Ben Zion Y Z, Binsztok M et al. Correlation of clinical characteristics and small bowel histopathology in celiac disease. *J Pediatr Gastroenterol Nutr* 1997;24(5):555-558. No prevalence or incidence reported
- Weizman Z, Stringer D A, Durie P R. Radiologic manifestations of malabsorption: a nonspecific finding. *Pediatrics* 1984;74(4):530-533. No prevalence or incidence reported
- Weizman Z, Vardi O, Binsztok M. Dermatoglyphic (fingerprint) patterns in celiac disease. *J Pediatr Gastroenterol Nutr* 1990;10(4):451-453. No prevalence or incidence reported
- West Joe, Logan Richard F A, Card Tim R et al. Fracture risk in people with celiac disease: a population-based cohort study. *Gastroenterology* 2003;125(2):429-436. No prevalence or incidence reported
- West R J, Fosbrooke A S, Lloyd J K. Treatment of children with familial hypercholesterolaemia. *Postgrad Med J* 1975;51(8):Suppl 82-Suppl 87. No prevalence or incidence reported
- Westerholm-Ormio Mia, Vaarala Outi, Pihkala Paivi et al. Immunologic activity in the small intestinal mucosa of pediatric patients with type 1 diabetes. *Diabetes* 2003;52(9):2287-2295. No prevalence or incidence reported
- Westman E, Ambler G R, Royle M et al. Children with coeliac disease and insulin dependent diabetes mellitus--growth, diabetes control and dietary intake. *Journal of Pediatric Endocrinology & Metabolism - Jpem* 1999;12(3):433-442. No prevalence or incidence reported
- Wharton B A. Coeliac disease in childhood. *Br J Hosp Med* 1974;12(4):452-466. No prevalence or incidence reported
- Wharton B, Wharton P. Nutrition in adolescence. *Nutr Health* 1987;4(4):195-203. No prevalence or incidence reported
- White A G, Barnetson R S C, Da Costa J A G et al. The incidence of HL A antigens in dermatitis herpetiformis. *Br J Dermatol* 1973;89(2):133-136. No prevalence or incidence reported
- White T T, Slavotinek A H. Results of surgical treatment of chronic pancreatitis. Report of 142 cases. *Ann Surg* 1979;189(2):217-224. No prevalence or incidence reported
- Whitfield C R. Obstetric sprue. *J Obstet Gynaecol Br Commonw* 1970;77(7):577-586. No prevalence or incidence reported
- Whorwell P J, Alderson M R, Foster K J et al. Death from ischaemic heart-disease and malignancy in adult patients with coeliac disease. *Lancet* 1976;2(7977):113-114. No prevalence or incidence reported
- Wicks A C, Clain D J. Chronic pancreatitis in African diabetics. *Am J Dig Dis* 1975;20(1):1-8. No prevalence or incidence reported
- Wicks A C, Jones J J. Ethnic differences in coronary heart disease. *South African Medical Journal.Suid-Afrikaanse Tydskrif Vir Geneeskunde* 1973;47(9):362No prevalence or incidence reported
- Wiggins H S, Pearson J R, Walker J G et al. Incidence and significance of faecal hydroxystearic acid in alimentary disease. *Gut* 1974;15(8):614-621. No prevalence or incidence reported
- Williams A J, Annis P, Lock R J et al. Evaluation of a high-throughput second antibody radiobinding assay for measuring IgA antibodies to human tissue transglutaminase. *J Immunol Methods* 1999;228(1-2):81-85. No prevalence or incidence reported
- Williams A J, Asquith P, Stableforth D E. Susceptibility to tuberculosis in patients with coeliac disease. *Tubercle* 1988;69(4):267-274. No prevalence or incidence reported

- Williams A J, Norcross A J, Lock R J et al. The high prevalence of autoantibodies to tissue transglutaminase in first-degree relatives of patients with type 1 diabetes is not associated with islet autoimmunity. *Diabetes Care* 2001;24(3):504-509. Not a relevant screening group
- Williams C N, Dickson R C. Cholestyramine and medium-chain triglyceride in prolonged management of patients subjected to ileal resection or bypass. *Can Med Assoc J* 1972;107(7):626-631. No prevalence or incidence reported
- Williamson Debbie, Marsh Michael N. Celiac disease. *Mol Biotechnol* 2002;22(3):293-299. No prevalence or incidence reported
- Williamson N, Asquith P, Stokes L et al. Anticonnective tissue and other antitissue 'antibodies' in the sera of patients with coeliac disease compared with the findings in a mixed hospital population. *J Clin Pathol* 1976;29(6):484-494. No prevalence or incidence reported
- Willoughby J M T, Laitner S M. Audit of the investigation of iron deficiency anaemia in a distinct general hospital, with sample guidelines for future practice. *Postgrad Med J* 2000;76(894):218-222. No prevalence or incidence reported
- Wills A J, Unsworth D J. The neurology of gluten sensitivity: Separating the wheat from the chaff. *Curr Opin Neurol* 2002;15(5):519-523. No prevalence or incidence reported
- Wills A J. The neurology and neuropathology of coeliac disease. *Neuropathol Appl Neurobiol* 2000;26(6):493-496. No prevalence or incidence reported
- Wilson M-M. Undernutrition in medical outpatients. *Clin Geriatr Med* 2002;18(4):759-771. No prevalence or incidence reported
- Winklhofer-Roob B M, Rossipal E, Lanzer G. Human leucocyte class I and II antigens in coeliac disease: a study in an Austrian paediatric population. *Eur J Pediatr* 1991;150(10):704-707. No prevalence or incidence reported
- Witas H W, Mlynarski W, Rozalski M et al. Study of Polish coeliac patients: HLA-DQ amino acid variants involved in antigen presentation. *Cent-Eur J Immunol* 1997;22(4):266-271. No prevalence or incidence reported
- Witas H W, Mlynarski W, Sychowski R. Polymorphism of genes located on chromosome 2q is associated with coeliac disease. *Cent-Eur J Immunol* 2001;26(1):31-36. No prevalence or incidence reported
- Wolters Victorien, Vooijs-Moulaert Anne, Burger Huib et al. Human tissue transglutaminase enzyme linked immunosorbent assay outperforms both the guinea pig based tissue transglutaminase assay and anti-endomysium antibodies when screening for coeliac disease. *Eur J Pediatr* 2002;161(5):284-287. No prevalence or incidence reported
- Wonke B. Clinical management of beta-thalassemia major. *Semin Hematol* 2001;38(4):350-359. No prevalence or incidence reported
- Woodruff C W. Milk intolerances. *Nutr Rev* 1976;34(2):33-37. No prevalence or incidence reported
- Woods R K, Stoney R M, Raven J et al. Reported adverse food reactions overestimate true food allergy in the community. *Eur J Clin Nutr* 2002;56(1):31-36. No prevalence or incidence reported
- Woods Rosalie K, Thien Frank, Raven Joan et al. Prevalence of food allergies in young adults and their relationship to asthma, nasal allergies, and eczema. *Annals of Allergy, Asthma & Immunology - Official Publication of the American College of Allergy, Asthma, & Immunology* 2002;88(2):183-189. No prevalence or incidence reported
- Woolley N, Holopainen P, Bourgain C et al. CD80 (B7-1) and CD86 (B7-2) genes and genetic susceptibility to coeliac disease. *European Journal of Immunogenetics - Official Journal of the British Society for Histocompatibility and Immunogenetics* 2002;29(4):331-333. No prevalence or incidence reported
- Woolley Niina, Holopainen Paivi, Ollikainen Vesa et al. A new locus for coeliac disease mapped to chromosome 15 in a population isolate. *Hum Genet* 2002;111(1):40-45. No prevalence or incidence reported
- Wordsworth B P, Salmon M. The HLA class II component of susceptibility to rheumatoid arthritis. *Bailliere's Clin Rheumatol* 1992;6(2):325-336. No prevalence or incidence reported
- Wordsworth P. PCR-SSO typing in HLA-disease association studies. *European Journal of Immunogenetics - Official Journal of the British Society for Histocompatibility and Immunogenetics* 1991;18(1-2):139-146. No prevalence or incidence reported
- Wright D H. Enteropathy associated T cell lymphoma. *Cancer Surv* 1997;30(-):249-261. No prevalence or incidence reported
- Wright D H. The major complications of coeliac disease. *Bailliere's Clin Gastroenterol* 1995;9(2):351-369. No prevalence or incidence reported

- Wu T T, Hamilton S R. Lymphocytic gastritis: association with etiology and topology. *Am J Surg Pathol* 1999;23(2):153-158. No prevalence or incidence reported
- Wucherpfnig K W. Insights into autoimmunity gained from structural analysis of MHC-peptide complexes. *Curr Opin Immunol* 2001;13(6):650-656. No prevalence or incidence reported
- Wurm P, Wicks A C. Iron deficiency anaemia - A clinical challenge. *Postgrad Med J* 2000;76(894):193-194. No prevalence or incidence reported
- Wyburn G M. The scanning micrograph as a clinical dimension. *N Z Med J* 1974;80(520):51-56. No prevalence or incidence reported
- Yamashiro Y. Pediatric gastroenterology in Japan: A personal perspective. *J Pediatr Gastroenterol Nutr* 2002;34(5):493-495. No prevalence or incidence reported
- Yeboah F A, White D. AlphaB-crystallin expression in celiac disease - a preliminary study. *Croat Med J* 2001;42(5):523-526. No prevalence or incidence reported
- Yiannakou J Y, Brett P M, Morris M A et al. Family linkage study of the T-cell receptor genes in coeliac disease. *Ital J Gastroenterol Hepatol* 1999;31(3):198-201. No prevalence or incidence reported
- Yong J M. Cause of raised serum-alkaline-phosphatase after partial gastrectomy and in other malabsorption states. *Lancet* 1966;1(7447):1132-1134. No prevalence or incidence reported
- Young W F, Pringle E M. 110 children with coeliac disease, 1950-1969. *Arch Dis Child* 1971;46(248):421-436. No prevalence or incidence reported
- Zachor D A, Mroczek-Musulman E, Brown P. Prevalence of celiac disease in Down syndrome in the United States. *J Pediatr Gastroenterol Nutr* 2000;31(3):275-279. Not a relevant screening group
- Zadik Z, Kowarski A. Incidence of neurosecretory dysfunction among children aged 6-14 years in Rehovot, Israel. *Acta Paediatrica Scandinavica. Supplement* 1989;34977-83. No prevalence or incidence reported
- Zalev A H, Gardiner G W, Warren R E. NSAID injury to the small intestine. *Abdom Imaging* 1998;23(1):40-44. No prevalence or incidence reported
- Zauli D, Grassi A, Granito A et al. Prevalence of silent coeliac disease in atopics. *Digestive and Liver Disease - Official Journal of the Italian Society of Gastroenterology and the Italian Association for the Study of the Liver* 2000;32(9):775-779. No prevalence or incidence reported
- Zelissen P M, Bast E J, Crougns R J. Associated autoimmunity in Addison's disease. *J Autoimmun* 1995;8(1):121-130. No prevalence or incidence reported
- Zhong F, McCombs C C, Olson J M et al. An autosomal screen for genes that predispose to celiac disease in the western counties of Ireland. *Nat Genet* 1996;14(3):329-333. No prevalence or incidence reported
- Ziegler Anette, Schmid Sandra, Huber Doris et al. Early infant feeding and risk of developing type 1 diabetes-associated autoantibodies. *Jama - the Journal of the American Medical Association* 2003;290(13):1721-1728. No prevalence or incidence reported
- Ziem G E. Profile of patients with chemical injury and sensitivity, part II. *Int J Toxicol* 1999;18(6):401-409. No prevalence or incidence reported
- Zins B J, Tremaine W J, Carpenter H A. Collagenous colitis: mucosal biopsies and association with fecal leukocytes. *Mayo Clin Proc* 1995;70(5):430-433. No prevalence or incidence reported
- Zipser Robert D, Patel Sunil, Yahya Kareem Z et al. Presentations of adult celiac disease in a nationwide patient support group. *Dig Dis Sci* 2003;48(4):761-764. No prevalence or incidence reported
- Zollinger R M. Islet cell tumors of the pancreas and the alimentary tract. *Am J Surg* 1975;129(2):102-110. No prevalence or incidence reported
- Zubillaga P, Vitoria J C, Arrieta A et al. Down Syndrome and celiac disease. *J Pediatr Gastroenterol Nutr* 1993;16(2):168-171. No prevalence or incidence reported
- Zucca E, Roggero E, Bertoni F et al. Primary extranodal non-Hodgkin's lymphomas. Part 1: Gastrointestinal, cutaneous and genitourinary lymphomas. *Ann Oncol* 1997;8(8):727-737. No prevalence or incidence reported

### Objective 3 – Celiac Associated Lymphoma

- Abdulkarim A S, Burgart L J, See J et al. Etiology of nonresponsive celiac disease: results of a systematic approach. *Am J Gastroenterol* 2002;97(8):2016-2021. Does not address the question
- Acalovschi M. Coeliac disease and lymphoma. *Rom J Gastroenterol* 2001;10(4):317-320. Review article
- Al Mondhiry H. Primary lymphomas of the small intestine: east-west contrast. *Am J Hematol* 1986;22(1):89-105. Review article
- Aljurf M D, Owaidah T W, Ezzat A et al. Antigen-and/or immune-driven lymphoproliferative disorders. *Ann Oncol* 2003;14(11):1595-1606. Not about celiac and GI lymphoma
- Andersson H, Dotevall G, Mobacken H. Malignant mesenteric lymphoma in a patient with dermatitis herpetiformis, hypochlorhydria, and small-bowel abnormalities. *Scand J Gastroenterol* 1971;6(5):397-399. Does not address the question
- Anonymous. Coeliac disease in the elderly. *Lancet* 1984;1(8380):775-776. Not about celiac and GI lymphoma
- Anonymous. A new type intestinal lymphoma. *J Clin Pathol Mol Pathol* 2002;55(5):314 Not about celiac and GI lymphoma
- Anonymous. Primary gut lymphomas. *Lancet* 1991;337(8754):1384-1385. Not about celiac and GI lymphoma
- Anonymous. A guide for patients. *Pract Gastroenterol* 2002;26(11):58-61. Not about celiac and GI lymphoma
- Aozasa K. Villous atrophy with crypt hyperplasia in malignant histiocytosis of the nose. *J Clin Pathol* 1982;35(6):606-610. Not about celiac and GI lymphoma
- Ashton-Key M, Diss T C, Pan L et al. Molecular analysis of T-cell clonality in ulcerative jejunitis and enteropathy-associated T-cell lymphoma. *Am J Pathol* 1997;151(2):493-498. Does not address the question
- Asquith P. Adult coeliac disease and malignancy. *Ir Med J* 1974;67(15):417-420. Review article
- Austad W I, Cornes J S, Gough K R et al. Steatorrhea and malignant lymphoma. The relationship of malignant tumors of lymphoid tissue and celiac disease. *Am J Dig Dis* 1967;12(5):475-490. Does not address the question
- Baer A N, Bayless T M, Yardley J H. Intestinal ulceration and malabsorption syndromes. *Gastroenterology* 1980;79(4):754-765. Not about celiac and GI lymphoma
- Bagdi E, Diss T C, Munson P et al. Mucosal intra-epithelial lymphocytes in enteropathy-associated T-cell lymphoma, ulcerative jejunitis, and refractory celiac disease constitute a neoplastic population. *Blood* 1999;94(1):260-264. Does not address the question
- Bank S, Marks I N, Novis B. Progress in small-bowel physiology and disease. *South African Medical Journal.Suid-Afrikaanse Tydskrif Vir Geneeskunde* 1971;45(41):1141-1144. Not about celiac and GI lymphoma
- Barry R E. Coeliac disease and malignancy. *Tijdschr Gastroenterol* 1973;16(1):23-34. Does not address the question
- Barry R E, Read A E. Coeliac disease and malignancy. *Qjm - Monthly Journal of the Association of Physicians* 1973;42(168):665-675. Not about celiac and GI lymphoma
- Barry R E, Read A E. Two types of 'coeliac' disease?. *Gut* 1972;13(10):846-847. Not about celiac and GI lymphoma
- Barry R E, Baker P, Read A E. Coeliac disease. The clinical presentation. *Clin Gastroenterol* 1974;3(1):55-69. Not about celiac and GI lymphoma
- Barry R E, Morris J S, Kenwright S et al. Coeliac disease and malignancy. The possible importance of familial involvement. *Scand J Gastroenterol* 1971;6(3):205-207. Not about celiac and GI lymphoma
- Bell S, Green P H R, Kagnoff M F. American gastroenterological association medical position statement: Celiac sprue. *Gastroenterology* 2001;120(6):1522-1525. Not about celiac and GI lymphoma
- Berndt H. Malabsorption in cancer of and outside the bowel. *Digestion* 1968;1(5):305-310. Not about celiac and GI lymphoma
- Biagi F, Corazza G R. Defining gluten refractory enteropathy. *Eur J Gastroenterol Hepatol* 2001;13(5):561-565. Not about celiac and GI lymphoma
- Biagi F, Lorenzini P, Corazza G R. Literature review on the clinical relationship between ulcerative

- jejunoileitis, coeliac disease, and enteropathy-associated T-cell. *Scand J Gastroenterol* 2000;35(8):785-790. Review article
- Bontems P, Deprettere A, Cadranet S et al. The coeliac iceberg: A consensus in paediatrics. *Acta Gastro-Enterol Belg* 2000;63(2):157-162. Not about celiac and GI lymphoma
- Booth S N, King J P G, Leonard J C et al. Serum carcinoembryonic antigen in clinical disorders. *Gut* 1973;14(10):794-799. Not about celiac and GI lymphoma
- Boucher B J, Wright J T. Steatorrhoea and jejunal reticulum cell sarcoma occurring in a patient on long-term colchicine therapy for gout. *Postgrad Med J* 1973;49(568):106-107. Not about celiac and GI lymphoma
- Bourke M A, McLoughlin D M, Stevens F M et al. Serum lysozyme: is it a useful marker of malignant lymphoma in coeliac disease?. *Ir J Med Sci* 1983;152(3):125-128. Not about celiac and GI lymphoma
- Brandborg L L. Histologic diagnosis of diseases of malabsorption. *Am J Med* 1979;67(6):999-1006. Not about celiac and GI lymphoma
- Brandt L, Hagander B, Norden A et al. Lymphoma of the small intestine in adult coeliac disease. *Acta Med Scand* 1978;204(6):467-470. Does not address the question
- Brunt P W, Sircus W, Maclean N. Neoplasia and the coeliac syndrome in adults. *Lancet* 1969;1(7587):180-184. Not about celiac and GI lymphoma
- Brunton F J, Guyer P B. Malignant histiocytosis and ulcerative jejunitis of the small intestine. *Clin Radiol* 1983;34(3):291-295. Not about celiac and GI lymphoma
- Brzechwa-Ajdukiewicz A, McCarthy C F, Austad W et al. Carcinoma, villous atrophy, and steatorrhoea. *Gut* 1966;7(6):572-577. Not about celiac and GI lymphoma
- Buckley D B, English J, Molloy W et al. Dermatitis herpetiformis: a review of 119 cases. *Clin Exp Dermatol* 1983;8(5):477-487. Not about celiac and GI lymphoma
- Burrows F G, Toye D K. Coeliac disease. Barium studies. *Clin Gastroenterol* 1974;3(1):91-107. Not about celiac and GI lymphoma
- Cammarota G, Tursi A, Papa A et al. *Helicobacter pylori*, gastric mucosa-associated lymphoid tissue and autoimmune thyroid diseases. *Gastroenterol Int* 1997;10(SUPPL. 1):43-45. Not about celiac and GI lymphoma
- Carbonnel F, D'Almagne H, Lavergne A et al. The clinicopathological features of extensive small intestinal CD4 T cell infiltration. *Gut* 1999;45(5):662-667. Not about celiac and GI lymphoma
- Carbonnel F, Grollet-Bioul L, Brouet J C et al. Are complicated forms of celiac disease cryptic T-cell lymphomas?. *Blood* 1998;92(10):3879-3886. Does not address the question
- Carroccio A, Iannitto E, Di Prima L et al. Screening for celiac disease in non-Hodgkin's lymphoma patients: a serum anti-transglutaminase-based approach. *Dig Dis Sci* 2003;48(8):1530-1536. Not about celiac and GI lymphoma
- Casellas F, Chicharro L, Malagelada J R. Potential usefulness of hydrogen breath test with D-xylose in clinical management of intestinal malabsorption. *Dig Dis Sci* 1993;38(2):321-327. Not about celiac and GI lymphoma
- Catassi C, Fabiani E, Corrao G et al. Risk of non-Hodgkin lymphoma in celiac disease. *Jama - the Journal of the American Medical Association* 2002;287(11):1413-1419. Risk of CD in lymphoma
- Ceccarelli M, Cortigiani L, Ughi C et al. Placental iso-ferritin as a marker of immune system involvement in coeliac disease. *Riv Ital Pediatr* 1990;16(3):300-302. Not about celiac and GI lymphoma
- Cellier C, Cuillerier E, Patey-Mariaud de et al. Push enteroscopy in celiac sprue and refractory sprue. *Gastrointest Endosc* 1999;50(5):613-617. Not about celiac and GI lymphoma
- Cellier C, Delabesse E, Helmer C et al. Refractory sprue, coeliac disease, and enteropathy-associated T-cell lymphoma. French Coeliac Disease Study Group. *Lancet* 2000;356(9225):203-208. Pathogenesis only
- Cellier C, Patey N, Mauvieux L et al. Abnormal intestinal intraepithelial lymphocytes in refractory sprue. *Gastroenterology* 1998;114(3):471-481. Not about celiac and GI lymphoma
- Cello J P. Inflammatory and malignant diseases of the small bowel causing malabsorption. *Clin Gastroenterol* 1983;12(2):511-532. Not about celiac and GI lymphoma
- Cerf-Bensussan N, Brousse N, Cellier C. From hyperplasia to T cell lymphoma. *Gut* 2002;51(3):304-305. Review article
- Chantar C, Escartin P, Plaza A G. Diffuse plasma cell infiltration of the small intestine with malabsorption associated to IgA monoclonal gammopathy. *Cancer*

- 1974;34(5):1620-1630. Not about celiac and GI lymphoma
- Cheng H, Wang J, Zhang C et al. Clinicopathologic study of mucosa-associated lymphoid tissue lymphoma in gastroscopic biopsy. *World Journal of Gastroenterology - Wjg* 2003;9(6):1270-1272. Not about celiac and GI lymphoma
- Chott A, Dragosics B, Radaszkiewicz T. Peripheral T-cell lymphomas of the intestine. *Am J Pathol* 1992;141(6):1361-1371. Does not address the question
- Chott A, Haedicke W, Mosberger I et al. Most CD56sup + intestinal lymphomas are CD8sup +CD5sup - T-cell lymphomas of monomorphic small to medium size histology. *Am J Pathol* 1998;153(5):1483-1490. Not about celiac and GI lymphoma
- Ciacchi C, Squillante A, Rendina D et al. Helicobacter pylori infection and peptic disease in coeliac disease. *Eur J Gastroenterol Hepatol* 2000;12(12):1283-1287. Not about celiac and GI lymphoma
- Ciclitira Paul J, Moodie Simon J. Transition of care between paediatric and adult gastroenterology. *Coeliac disease. Best Practice & Research. Clinical Gastroenterology* 2003;17(2):181-195. Not about celiac and GI lymphoma
- Cluysenaer O J J, Van Tongeren J H M. The natural history of coeliac sprue, and factors which may influence it. *Neth J Med* 1978;21(1):35-43. Not about celiac and GI lymphoma
- Collin P, Reunala T, Pukkala E et al. Coeliac disease--associated disorders and survival. *Gut* 1994;35(9):1215-1218. Double publication of included data
- Cannon J J, McFarland J, Kelly A. Acute abdominal complications of coeliac disease. *Scand J Gastroenterol* 1975;10(8):843-846. Not about celiac and GI lymphoma
- Cooke W T, Thompson H, Williams J A. Malignancy and adult coeliac disease. *Gut* 1969;10(2):108-111. Not a controlled study
- Cooper B T, Read A E. Small intestinal lymphoma. *World J Surg* 1985;9(6):930-937. Review article
- Cooper B T, Read A E. Coeliac disease and lymphoma. *Qjm - Monthly Journal of the Association of Physicians* 1987;63(240):269-274. Review article
- Cooper B T, Holmes G K T, Ferguson R. Celiac disease and malignancy. *Medicine* 1980;59(4):249-261. Not a controlled study
- Cooper B T, Holmes G K, Cooke W T. Lymphoma risk in coeliac disease of later life. *Digestion* 1982;23(2):89-92. Double publication of included data
- Cooper B T, Ukabam S O, Barry R E et al. Serum lysozyme activity in coeliac disease: A possible aid to the diagnosis of malignant change. *J Clin Pathol* 1981;34(12):1358-1360. Not about celiac and GI lymphoma
- Cooper D L, Doria R, Salloum E. Primary gastrointestinal lymphomas. *Gastroenterologist* 1996;4(1):54-64. Not about celiac and GI lymphoma
- Corazza G R, Di Stefano M, Ciccocioppo R et al. Immune-mediated complications of coeliac disease. *Int J Immunopathol Pharmacol* 1997;10(2 Suppl):83-85. Not about celiac and GI lymphoma
- Corazza G R, Zoli G, Di Sabatino A et al. A reassessment of splenic hypofunction in celiac disease. *Am J Gastroenterol* 1999;94(2):391-397. Not about celiac and GI lymphoma
- Cornes J S. Hodgkin's disease of the gastrointestinal tract. *Proc R Soc Med* 1967;60(8):732-733. Not about celiac and GI lymphoma
- Crabbe P A, Heremans J F. Normal and defective production of immunoglobulins in the intestinal tract. *Bibl Paediatr* 1968;87:161-181. Not about celiac and GI lymphoma
- Cronin C C, Shanahan F. Exploring the iceberg - The spectrum of celiac disease. *Am J Gastroenterol* 2003;98(3):518-520. Not about celiac and GI lymphoma
- Crump M, Gospodarowicz M, Shepherd F A. Lymphoma of the gastrointestinal tract. *Semin Oncol* 1999;26(3):324-337. Review article
- Cuillerier E, Landi B, Cellier C. Is push enteroscopy useful in patients with malabsorption of unclear origin?. *Am J Gastroenterol* 2001;96(7):2103-2106. Not about celiac and GI lymphoma
- Cuoco L, Cammarota G, Tursi A et al. Disappearance of gastric mucosa-associated lymphoid tissue in coeliac patients after gluten withdrawal. *Scand J Gastroenterol* 1998;33(4):401-405. Not about celiac and GI lymphoma
- Czaja A J. Autoimmune liver disease. *Curr Opin Gastroenterol* 1999;15(3):240-248. Not about celiac and GI lymphoma
- D'Agostino L, Ciacchi C, Daniele B et al. Postheparin plasma diamine oxidase in subjects with small bowel mucosal atrophy. *Dig Dis Sci* 1987;32(3):313-317. Not about celiac and GI lymphoma

- D'Agostino L, Contegiacomo A, Pignata S et al. Plasma postheparin diamine oxidase in patients with small intestinal lymphoma. *Cancer* 1991;67(2):511-515. Not about celiac and GI lymphoma
- D'Agostino L, Daniele B, Pignata S et al. Postheparin plasma diamine oxidase in subjects with small bowel disease. Diagnostic efficiency of a simplified test. *Digestion* 1988;41(1):46-54. Not about celiac and GI lymphoma
- Daum S, Weiss D, Hummel M et al. Frequency of clonal intraepithelial T lymphocyte proliferations in enteropathy-type intestinal T cell lymphoma, coeliac disease, and refractory sprue. *Gut* 2001;49(6):804-812. Does not address the question
- David T J, Ajdukiewicz A B, Read A E. Dermal and epidermal ridge atrophy in celiac sprue. *Gastroenterology* 1973;64(4):539-544. Not about celiac and GI lymphoma
- de Bruin P C, Jiwa N M, Oudejans J J et al. Epstein-Barr virus in primary gastrointestinal T cell lymphomas. Association with gluten-sensitive enteropathy, pathological features, and immunophenotype. *Am J Pathol* 1995;146(4):861-867. Not about celiac and GI lymphoma
- de Bruin P C, Kummer J A, van der V et al. Granzyme B-expressing peripheral T-cell lymphomas: neoplastic equivalents of activated cytotoxic T cells with preference for mucosa-associated lymphoid tissue localization. *Blood* 1994;84(11):3785-3791. Not about celiac and GI lymphoma
- De Giacomo C, Gianatti A, Negrini R et al. Lymphocytic gastritis: a positive relationship with celiac disease. *Eur J Pediatr* 1994;124(1):57-62. Not about celiac and GI lymphoma
- Deprez Pierre H, Sempoux Christine, De Saeger et al. Expression of cholecystokinin in the duodenum of patients with coeliac disease: respective role of atrophy and lymphocytic infiltration. *Clinical Science (London, England - 1979)* 2002;103(2):171-177. Not about celiac and GI lymphoma
- Devi Rampertab S, Fleischauer A, Neugut A I et al. Risk of duodenal adenoma in celiac disease. *Scand J Gastroenterol* 2003;38(8):831-833. Not about celiac and GI lymphoma
- Dewar D, Pereira S P, Ciclitira P J. The pathogenesis of coeliac disease. *Int J Biochem Cell Biol* 2004;36(1):17-24. Not about celiac and GI lymphoma
- Dickey W. Colon neoplasia co-existing with coeliac disease in older patients: coincidental, probably; important, certainly. *Scand J Gastroenterol* 2002;37(9):1054-1056. Not about celiac and GI lymphoma
- Dieterich W, Ehnis T, Bauer M et al. Identification of tissue transglutaminase as the autoantigen of celiac disease. *Nat Med* 1997;3(7):797-801. Review article
- Dinari G, Zahavi I, Marcus H et al. Placental ferritin in coeliac disease: relation to clinical stage, origin, and possible role in the pathogenesis of malignancy. *Gut* 1991;32(9):999-1003. Does not address the question
- Doe W F. An overview of intestinal immunity and malabsorption. *Am J Med* 1979;67(6):1077-1084. Not about celiac and GI lymphoma
- Douglas A P. The immunological basis of coeliac disease. *Front Gastrointest Res* 1975;149-73. Not about celiac and GI lymphoma
- Driessen A, Ectors N. Lymphomas of the gastrointestinal tract: Uncommon types: LYMPHOMES DU TRACTUS GASTRO-INTESTINAL: TYPES RARES. *Acta Endoscopica* 2003;33(3):327-345. Not about celiac and GI lymphoma
- Duffy L F. Gastrointestinal manifestations in AIDS. *Pediatr AIDS HIV Infect* 1993;4(3):151-156. Not about celiac and GI lymphoma
- Dutz W, Asvadi S, Sadri S et al. Intestinal lymphoma and sprue: a systematic approach. *Gut* 1971;12(10):804-810. Does not address the question
- Egan C A, O'Loughlin S, Gormally S et al. Dermatitis Herpetiformis: a review of fifty-four patients. *Ir J Med Sci* 1997;166(4):241-244. Not about celiac and GI lymphoma
- Egan L J, Walsh S V, Stevens F M et al. Celiac-associated lymphoma. A single institution experience of 30 cases in the combination chemotherapy era. *J Clin Gastroenterol* 1995;21(2):123-129. Does not address the question
- Elsborg L, Mosbech J. Sprue: a follow-up study of an old series. *Dan Med Bull* 1978;25(5):205-206. Not about celiac and GI lymphoma
- Ermacora E, Prampolini L, Tribbia G. Long-term follow-up of dermatitis herpetiformis in children. *J Am Acad Dermatol* 1986;15(1):24-30. Not about celiac and GI lymphoma
- Farrell R J, Kelly C P. Diagnosis of celiac sprue. *Am J Gastroenterol* 2001;96(12):3237-3246. Not about celiac and GI lymphoma
- Farstad I N, Lundin K E A. Gastrointestinal intraepithelial lymphocytes and T cell lymphomas. *Gut* 2003;52(2):163-164. Not about celiac and GI lymphoma
- Farstad I N, Johansen F-E, Vlatkovic L et al. Heterogeneity of intraepithelial lymphocytes in

- refractory sprue: Potential implications of CD30 expression. *Gut* 2002;51(3):372-378. Not about celiac and GI lymphoma
- Farthing M J, Rees L H, Edwards C R et al. Male gonadal function in coeliac disease: 2. Sex hormones. *Gut* 1983;24(2):127-135. Not about celiac and GI lymphoma
- Feeley K M, Heneghan M A, Stevens F M et al. Lymphocytic gastritis and coeliac disease: evidence of a positive association. *J Clin Pathol* 1998;51(3):207-210. Not about celiac and GI lymphoma
- Fehmers M C, Wilderink F, Oushoorn H H et al. Gluten-sensitive enteropathy and intestinal lymphoreticulosis. A case report. *Neth J Med* 1975;18(2):83-88. Not about celiac and GI lymphoma
- Ferguson A, Kingstone K. Coeliac disease and malignancies. *Acta Paediatr* 1996;41278-81. Does not address the question
- Ferguson R, Asquith P, Cooke W T. The cellular infiltrate of the jejunum in coeliac patients with complicating lymphoma. *Gut* 1974;15(4):338-339. Not about celiac and GI lymphoma
- Ferguson R, Asquith P, Cooke W T. The jejunal cellular infiltrate in coeliac disease complicated by lymphoma. *Gut* 1974;15(6):458-461. Not about celiac and GI lymphoma
- Festen H P. Intrinsic factor secretion and cobalamin absorption. Physiology and pathophysiology in the gastrointestinal tract. *Scandinavian Journal of Gastroenterology. Supplement* 1991;1881-7. Not about celiac and GI lymphoma
- Finan P J, Thompson M R. Surgical presentation of small bowel lymphoma in adult coeliac disease. *Postgrad Med J* 1980;56(662):859-861. Does not address the question
- Fine K D, Stone M J. Alpha-heavy chain disease, Mediterranean lymphoma, and immunoproliferative small intestinal disease: a review of clinicopathological features, pathogenesis, and differential diagnosis. *Am J Gastroenterol* 1999;94(5):1139-1152. Not about celiac and GI lymphoma
- Fine K D, Lee E L, Meyer R L. Colonic histopathology in untreated celiac sprue or refractory sprue: is it lymphocytic colitis or colonic lymphocytosis?. *Hum Pathol* 1998;29(12):1433-1440. Not about celiac and GI lymphoma
- Fisher C M. Neoplasia and the coeliac syndrome. *Lancet* 1969;1(7597):730. Not about celiac and GI lymphoma
- Foss H D, Stein H. Pathology of intestinal lymphomas. *Recent Results in Cancer Research. Fortschritte Der Krebsforschung. Progres Dans Les Recherches Sur Le Cancer* 2000;15633-41. Not about celiac and GI lymphoma
- Foster P N, Heatley R V, Losowsky M S. Natural killer cells in coeliac disease. *J Clin Lab Immunol* 1985;17(4):173-176. Not about celiac and GI lymphoma
- Freeman H J. Survey of gastroenterologists on the diagnosis and treatment of adult patients with celiac disease in British Columbia. *Can J Gastroenterol* 1998;12(2):149-152. Does not address the question
- Freeman H J. Hepatobiliary tract and pancreatic disorders in celiac disease. *Can J Gastroenterol* 1997;11(1):77-81. Not about celiac and GI lymphoma
- Freeman H J. Celiac-associated autoimmune thyroid disease: A study of 16 patients with overt hypothyroidism: Maladie thyroïdienne auto-immune de nature coeliaque: etude portant sur 16 patients atteints d'hypothyroïdie avérée. *Can J Gastroenterol* 1995;9(5):242-246. Not about celiac and GI lymphoma
- Freeman H J. Clinical spectrum of biopsy defined celiac disease in the elderly. *Can J Gastroenterol* 1995;9(1):42-46. Not about celiac and GI lymphoma
- Freeman H J. Neoplastic disorders in 100 patients with adult celiac disease. *Can J Gastroenterol* 1996;10(3):163-166. Not about celiac and GI lymphoma
- Freeman H J. Free perforation due to intestinal lymphoma in biopsy-defined or suspected celiac disease. *J Clin Gastroenterol* 2003;37(4):299-302. Not about celiac and GI lymphoma
- Freeman H J, Weinstein W M, Shnitka T K. Primary abdominal lymphoma. Presenting manifestation of celiac sprue or complicating dermatitis herpetiformis. *Am J Med* 1977;63(4):585-594. Not about celiac and GI lymphoma
- Freeman Hugh, Lemoyne Michel, Pare Pierre. Coeliac disease. *Best Practice & Research. Clinical Gastroenterology* 2002;16(1):37-49. Review article
- Fry L. Dermatitis herpetiformis. *Bailliere's Clinical Gastroenterology* 1995;9(2):371-393. Not about celiac and GI lymphoma
- Fry L, McMinn R M. Morphology and functional cytology of the small intestinal mucosa in malabsorptive disorders and other diseases. *J Clin Pathol* 1966;19(3):260-265. Not about celiac and GI lymphoma

- Fu K, Stewart J R. Radiotherapeutic management of small intestinal lymphoma with malabsorption. *Cancer* 1973;31(2):286-290. Not about celiac and GI lymphoma
- Fundia A F, Gonzalez Cid M B, Bai J et al. Chromosome instability in lymphocytes from patients with celiac disease. *Clin Genet* 1994;45(2):57-61. Does not address the question
- Fundia A, Gomez J C, Maurino E et al. Chromosome instability in untreated adult celiac disease patients. *Acta Paediatr* 1996;41282-84. Does not address the question
- Gale J, Simmonds P D, Mead G M et al. Enteropathy-type intestinal T-cell lymphoma: clinical features and treatment of 31 patients in a single center. *Journal of Clinical Oncology - Official Journal of the American Society of Clinical Oncology* 2000;18(4):795-803. Does not address the question
- Garioch J J. Dermatitis herpetiformis and its management. *Prescr J* 1996;36(3):141-145. Not about celiac and GI lymphoma
- Gasbarrini G, Ciccocioppo R, De Vitis I et al. Coeliac disease in the elderly. A multicentre Italian study. *Gerontology* 2001;47(6):306-310. Not a controlled study
- Gasbarrini G, Miglio F, Serra M A et al. Immunological studies of the jejunal mucosa in normal subjects and adult celiac patients. *Digestion* 1974;10(2):122-128. Not about celiac and GI lymphoma
- Gawkrodger D J, Blackwell J N, Gilmour H M et al. Dermatitis herpetiformis: diagnosis, diet and demography. *Gut* 1984;25(2):151-157. Not about celiac and GI lymphoma
- Gay G J, Delmotte J S. Enteroscopy in small intestinal inflammatory diseases. *Gastrointest Endosc Clin N Am* 1999;9(1):115-123. Not about celiac and GI lymphoma
- Gerson D E, Lewicki A M. Intramural small bowel hemorrhage: complication of sprue. *Radiology* 1973;108(3):521-522. Not about celiac and GI lymphoma
- Gheorghe L, Gheorghe C, Aposteanu G et al. Clinical spectrum of adult celiac disease in a referral center for Southern Romania. Associated disorders and short-term survival. *Rom J Gastroenterol* 1996;5(4):223-228. Not about celiac and GI lymphoma
- Gill S S, Heuman D M, Mihas A A. Small intestinal neoplasms. *J Clin Gastroenterol* 2001;33(4):267-282. Not about celiac and GI lymphoma
- Gillet H, Ferguson A, Frier B. Coeliac disease often co-exists with Type 1 diabetes mellitus. *Pract Diabetes Int* 1998;15(4):117-120. Not about celiac and GI lymphoma
- Goerres M S, Meijer J W R, Wahab P J et al. Azathioprine and prednisone combination therapy in refractory coeliac disease. *Aliment Pharmacol Ther* 2003;18(5):487-494. Not a controlled study
- Goldberg H I, Sheft D J. Abnormalities in small intestine contour and caliber: a working classification. *Radiol Clin North Am* 1976;14(3):461-475. Not about celiac and GI lymphoma
- Goodwin P, Fry L. Reticulum cell sarcoma complicating dermatitis herpetiformis. *Proc R Soc Med* 1973;66(7):625-626. Not about celiac and GI lymphoma
- Gould D J, Howell R. Dermatitis herpetiformis and reticulum cell sarcoma, a rare complication. *Br J Dermatol* 1977;96(5):561-562. Not about celiac and GI lymphoma
- Gourtsoyiannis N C, Nolan D J. Lymphoma of the small intestine: radiological appearances. *Clin Radiol* 1988;39(6):639-645. Not about celiac and GI lymphoma
- Green Peter H R, Jabri Bana. Celiac disease and other precursors to small-bowel malignancy. *Gastroenterol Clin North Am* 2002;31(2):625-639. Review article
- Green P H R, Jabri B. Coeliac disease. *Lancet* 2003;362(9381):383-391. Does not address the question
- Green P H R, Stavropoulos S N, Panagi S G et al. Characteristics of adult celiac disease in the USA: results of a national survey. *Am J Gastroenterol* 2001;96(1):126-131. Not about celiac and GI lymphoma
- Gritzmann N, Hollerweger A, Macheiner P et al. Transabdominal sonography of the gastrointestinal tract. *Eur Radiol* 2002;12(7):1748-1761. Not about celiac and GI lymphoma
- Habeshaw J A, Hayward M J, McVie J G. Extramedullary plasmacytoma of stomach. *Scand J Haematol* 1975;14(1):57-64. Not about celiac and GI lymphoma
- Hadziselimovic F, Emmons L R, Schaub U et al. Occurrence of large granular lymphocytes and natural killer cells in the epithelium of the gut distinguishes two different coeliac diseases. *Gut* 1992;33(6):767-772. Not about celiac and GI lymphoma
- Halkin H, Meytes D, Militeanu J et al. Multiple lymphomatous polyposis of the gastrointestinal tract.

- Isr J Med Sci 1973;9(5):648-654. Not about celiac and GI lymphoma
- Hall R P. Dietary management of dermatitis herpetiformis. Arch Dermatol 1987;123(10):1378a-1380a. Not about celiac and GI lymphoma
- Halme L, Mecklin J P, Juhola M et al. Primary gastrointestinal non-Hodgkin's lymphoma. A population based study in central Finland in 1975-1993. Acta Oncol 1997;36(1):69-74. Does not address the question
- Hardman C M, Anstey A. The management of dermatitis herpetiformis. J Dermatol Treat 1998;9(2):125-130. Not about celiac and GI lymphoma
- Harris O D, Cooke W T, Thompson H et al. Malignancy in adult coeliac disease and idiopathic steatorrhoea. Am J Med 1967;42(6):899-912. Double publication of included data
- Harvey Richard F, Shaw Ian S. Current thinking in coeliac disease. Br J Gen Pract 2002;246(1638):596-602. Not about celiac and GI lymphoma
- Hayat M, Cairns A, Dixon M F et al. Quantitation of intraepithelial lymphocytes in human duodenum: what is normal?. J Clin Pathol 2002;55(5):393-394. Not about celiac and GI lymphoma
- Hekimgil M, Soydan S, Nart D et al. Histopathologic and immunophenotypic features of childhood and adult anaplastic large-cell lymphomas. Turk J Haematol 2001;18(4):265-274. Not about celiac and GI lymphoma
- Heneghan M A, Stevens F M, Cryan E M et al. Celiac sprue and immunodeficiency states: a 25-year review. J Clin Gastroenterol 1997;25(2):421-425. Not about celiac and GI lymphoma
- Herron M D, Zone J J. Treatment of dermatitis herpetiformis and linear IgA bullous dermatosis. Dermatol Ther 2002;15(4):374-381. Not about celiac and GI lymphoma
- Hobbs J R. Immunoglobulins and malabsorption. Proc R Soc Med 1969;62(10):982-985. Not about celiac and GI lymphoma
- Hodges J R, Isaacson P, Eade O E et al. Serum lysozyme levels in malignant histiocytosis of the intestine. Gut 1979;20(10):854-857. Does not address the question
- Hodges J R, Isaacson P, Smith C L et al. Malignant histiocytosis of the intestine. Dig Dis Sci 1979;24(8):631-638. Does not address the question
- Hodgson J R, Hoffman H N, Huizenga K A. Roentgenologic features of lymphoid hyperplasia of the small intestine associated with dysgammaglobulinemia. Radiology 1967;88(5):883-888. Not about celiac and GI lymphoma
- Hoffmann M, Vogelsang H, Kletter K et al. 18F-fluoro-deoxy-glucose positron emission tomography (18F-FDG-PET) for assessment of enteropathy-type T cell lymphoma. Gut 2003;52(3):347-351. Not about celiac and GI lymphoma
- Hoggan R. Considering wheat, rye, and barley proteins as aids to carcinogens. Med Hypotheses 1997;49(3):285-288. Not about celiac and GI lymphoma
- Holmes G K. Celiac disease and malignancy. J Pediatr Gastroenterol Nutr 1997;24(5):S20-S23. Review article
- Holmes G K T. Coeliac disease and malignancy. Digestive and Liver Disease - Official Journal of the Italian Society of Gastroenterology and the Italian Association for the Study of the Liver 2002;34(3):229-237. Review article
- Holmes G K T. Coeliac disease and malignancy. Ann Nestle 1993;51(2):66-74. Review article
- Holmes G K T. Coeliac disease and Type 1 diabetes mellitus - The case for screening. Diabetic Medicine - a Journal of the British Diabetic Association 2001;18(3):169-177. Not about celiac and GI lymphoma
- Holmes G K, Stokes P L, Sorahan T M et al. Coeliac disease, gluten-free diet, and malignancy. Gut 1976;17(8):612-619. Double publication of included data
- Hourihane D O, Weir D G. Malignant celiac syndrome. Report of two cases with malabsorption and microscopic foci of intestinal lymphoma. Gastroenterology 1970;59(1):130-139. Does not address the question
- Howdle P D, Jalal P K, Holmes G K T et al. Primary small-bowel malignancy in the UK and its association with coeliac disease. Qjm - Monthly Journal of the Association of Physicians 2003;96(5):345-353. Does not address the question
- Howell W M, Jones D B. The role of human leucocyte antigen genes in the development of malignant disease. J Clin Pathol Clin Mol Pathol 1995;48(6):M302-M306. Not about celiac and GI lymphoma
- Howell W M, Leung S T, Jones D B et al. HLA-DRB, -DQA, and -DQB polymorphism in celiac disease and enteropathy-associated T-cell lymphoma. Common

- features and additional risk factors for malignancy. *Hum Immunol* 1995;43(1):29-37. Does not address the question
- Howell W, Martin Calder, Philip C et al. Gene polymorphisms, inflammatory diseases and cancer. *Proc Nutr Soc* 2002;61(4):447-456. Not about celiac and GI lymphoma
- Ilyas M, Niedobitek G, Agathangelou A et al. Non-Hodgkin's lymphoma, coeliac disease, and Epstein-Barr virus: a study of 13 cases of enteropathy-associated T- and B-cell lymphoma. *Am J Pathol* 1995;177(2):115-122. Does not address the question
- Isaacson P. Malignant histiocytosis of the intestine: the early histological lesion. *Gut* 1980;21(5):381-386. Not about celiac and GI lymphoma
- Isaacson P. Primary gastrointestinal lymphoma. *Virchows Archiv.A, Pathological Anatomy and Histology* 1981;391(1):1-8. Not about celiac and GI lymphoma
- Isaacson P, Wright D H. Intestinal lymphoma associated with malabsorption. *Lancet* 1978;1(8055):67-70. Does not address the question
- Isaacson P, Wright D H. Malignant histiocytosis of the intestine. Its relationship to malabsorption and ulcerative jejunitis. *Hum Pathol* 1978;9(6):661-677. Does not address the question
- Isaacson P G. Gastrointestinal lymphoma. *Hum Pathol* 1994;25(10):1020-1029. Review article
- Isaacson P G. Gastrointestinal lymphomas of T- and B-cell types. *Modern Pathology - an Official Journal of the United States and Canadian Academy of Pathology, Inc* 1999;12(2):151-158. Review article
- Isaacson P G. Intestinal lymphoma and enteropathy. *Am J Pathol* 1995;177(2):111-113. Review article
- Isaacson P G. Relation between cryptic intestinal lymphoma and refractory sprue. *Lancet* 2000;356(9225):178-179. Does not address the question
- Isaacson P G. B-cell lymphomas of the gastrointestinal tract. *Am J Surg Pathol* 1985;9(3 Suppl):117-128. Not about celiac and GI lymphoma
- Isaacson P G. T-cell lymphoma: The real thing. *Gut* 1999;45(5):638-639. Not about celiac and GI lymphoma
- Isaacson P, Wright D H, Judd M A et al. Primary gastrointestinal lymphomas: a classification of 66 cases. *Cancer* 1979;43(5):1805-1809. Not about celiac and GI lymphoma
- Jacobsen M B, Fausa O, Elgjo K et al. Hepatic lesions in adult coeliac disease. *Scand J Gastroenterol* 1990;25(7):656-662. Does not address the question
- James D G, Sharma O P. Overlap syndromes with sarcoidosis. *Postgrad Med J* 1985;61(719):769-771. Not about celiac and GI lymphoma
- James S P. 19. Immunologic, gastroenterologic, and hepatobiliary disorders. *J Allergy Clin Immunol* 2003;111(2 Suppl 2):S645-S658. Not about celiac and GI lymphoma
- Jennings J S R, Howdle P D. Celiac disease. *Curr Opin Gastroenterol* 2001;17(2):118-126. Not about celiac and GI lymphoma
- Johnston S D, Watson R G P. Small bowel lymphoma in unrecognized coeliac disease: A cause for concern?. *Eur J Gastroenterol Hepatol* 2000;12(6):645-648. Does not address the question
- Johnston S D, Watson R G, McMillan S A et al. Coeliac disease detected by screening is not silent-- simply unrecognized. *Qjm - Monthly Journal of the Association of Physicians* 1998;91(12):853-860. Not about celiac and GI lymphoma
- Jones B, Bayless T M, Fishman E K et al. Lymphadenopathy in celiac disease: computed tomographic observations. *Ajr.American Journal of Roentgenology* 1984;142(6):1127-1132. Not about celiac and GI lymphoma
- Jones D B, Foreman R. Cell origin of lymphoma complicating coeliac disease. *Lancet* 1985;2(8463):1067-1068. Not about celiac and GI lymphoma
- Jones P E, Gleeson M H. Mucosal ulceration and mesenteric lymphadenopathy in coeliac disease. *Br Med J* 1973;3(5873):212-213. Not about celiac and GI lymphoma
- Joshi V V. Pathology of acquired immunodeficiency syndrome (AIDS) in children. *Keio J Med* 1996;45(4):306-312. Not about celiac and GI lymphoma
- Kaerlev L, Teglbaerg P S, Sabroe S et al. Medical risk factors for small-bowel adenocarcinoma with focus on Crohn disease: a European population-based case-control study. *Scand J Gastroenterol* 2001;36(6):641-646. Not about celiac and GI lymphoma
- Katoh A, Ohshima K, Kanda M et al. Gastrointestinal T cell lymphoma: predominant cytotoxic phenotypes, including alpha/beta, gamma/delta T cell and natural killer cells. *Leuk Lymphoma* 2000;39(1-2):97-111. Not about celiac and GI lymphoma

- Katz K D. Celiac Disease - Current Clinical Considerations in Treatment and Avoidance of Nutritional Deficiencies. *Today's Ther Trends* 2003;21(4):379-389. Not about celiac and GI lymphoma
- Keating J P. Is celiac disease a premalignant state?. *J Pediatr Gastroenterol Nutr* 1984;3(1):4-5. Not about celiac and GI lymphoma
- Kelly C P, Feighery C F, Gallagher R B et al. Diagnosis and treatment of gluten-sensitive enteropathy. *Adv Intern Med* 1990;35341-363. Does not address the question
- Kepczyk T, Kadakia S C. Prospective evaluation of gastrointestinal tract in patients with iron-deficiency anemia. *Dig Dis Sci* 1995;40(6):1283-1289. Not about celiac and GI lymphoma
- Khilnani M T, Keller R J, Cuttner J. Macroglobulinemia and steatorrhea: roentgen and pathologic findings in the intestinal tract. *Radiol Clin North Am* 1969;7(1):43-55. Not about celiac and GI lymphoma
- Koning F. Celiac disease and malignancy: an immunological basis?. *J Pediatr Gastroenterol Nutr* 1997;24(5):S18-S19. Does not address the question
- Kowlessar O D. Dietary gluten sensitivity updated. *J Am Diet Assoc* 1972;60(6):475-477. Not about celiac and GI lymphoma
- Krawitt E L, Beeken W L. Limitations of the usefulness of the d-xylose absorption test. *Am J Clin Pathol* 1975;63(2):261-263. Not about celiac and GI lymphoma
- Krikler D M. Steatorrhea and plasma-alkaline-phosphatase. *Lancet* 1968;2(7558):51. Not about celiac and GI lymphoma
- Kruschwitz M, Fritzsche G, Schwarting R et al. Ber-ACT8: new monoclonal antibody to the mucosa lymphocyte antigen. *J Clin Pathol* 1991;44(8):636-645. Not about celiac and GI lymphoma
- Lahdeaho M-L, Lehtinen T, Aine R et al. Antibody response to adenovirus E1b-derived synthetic peptides and serum levels of p53 in patients with gastrointestinal and other malignant lymphomas. *J Med Virol* 1994;43(4):393-396. Not about celiac and GI lymphoma
- Lang-Muritano M, Molinari L, Dommann-Scherrer C et al. Incidence of enteropathy-associated T-cell lymphoma in celiac disease: Implications for children and adolescents with type 1 diabetes. *Pediatr Diabetes* 2002;3(1):42-45. Does not address the question
- Lasch E E, Ramot B, Neumann G. Childhood celiac disease in Israel. Epidemiological aspects. *Isr J Med Sci* 1968;4(6):1260-1264. Not about celiac and GI lymphoma
- Leonard J N, Tucker W F, Fry J S et al. Increased incidence of malignancy in dermatitis herpetiformis. *Br Med J (Clin Res Ed)* 1983;286(6358):16-18. Not about celiac and GI lymphoma
- Levinson J D, Kirsner J B. Infiltrative diseases of the small bowel and malabsorption. *Am J Dig Dis* 1970;15(8):741-766. Not about celiac and GI lymphoma
- Lewin K J, Kahn L B, Novis B H. Primary intestinal lymphoma of "Western" and "Mediterranean" type, alpha chain disease and massive plasma cell infiltration: a comparative study of 37 cases. *Cancer* 1976;38(6):2511-2528. Not about celiac and GI lymphoma
- Little A-M, Stern P L. Does HLA type predispose some individuals to cancer?. *Mol Med Today* 1999;5(8):337-342. Not about celiac and GI lymphoma
- Lojda Z. Proteinases in pathology. Usefulness of histochemical methods. *Journal of Histochemistry and Cytochemistry - Official Journal of the Histochemistry Society* 1981;29(3a Suppl):481-493. Not about celiac and GI lymphoma
- Luzi G, Zullo A, Iebba F et al. Duodenal pathology and clinical-immunological implications in common variable immunodeficiency patients. *Am J Gastroenterol* 2003;98(1):118-121. Not about celiac and GI lymphoma
- Machulla H K G, Muller L P, Schaaf A et al. Association of chronic lymphocytic leukemia with specific alleles of the HLA-DR4:DR53:DQ8 haplotype in German patients. *Int J Cancer* 2001;92(2):203-207. Not about celiac and GI lymphoma
- Maclaurin B P, Cooke W T, Ling N R. Impaired lymphocyte reactivity against tumour cells in patients with coeliac disease. *Gut* 1971;12(10):794-800. Not about celiac and GI lymphoma
- Marsh M N. Studies of intestinal lymphoid tissue. IV--The predictive value of raised mitotic indices among jejunal epithelial lymphocytes in the diagnosis of gluten-sensitive enteropathy. *J Clin Pathol* 1982;35(5):517-525. Not about celiac and GI lymphoma
- Marsh M N, Haeney M R. Studies of intestinal lymphoid tissue. VI. Proliferative response of small intestinal epithelial lymphocytes distinguishes gluten- from non-gluten-induced enteropathy. *J Clin Pathol*

- 1983;36(2):149-160. Not about celiac and GI lymphoma
- Marsh M N, Mathan M, Mathan V I. Studies of intestinal lymphoid tissue. VII. The secondary nature of lymphoid cell "activation" in the jejunal lesion of tropical sprue. *Am J Pathol* 1983;112(3):302-312. Not about celiac and GI lymphoma
- Marshak R H, Hazzi C, Lindner A E et al. The radiology corner: the small bowel in immunoglobulin deficiency syndromes. *Am J Gastroenterol* 1975;64(1):59-73. Not about celiac and GI lymphoma
- Marshak R H, Hazzi C, Lindner A E et al. Small bowel in immunoglobulin deficiency syndromes. *Am J Roentgenol Radium Ther Nucl Med* 1974;122(2):227-240. Not about celiac and GI lymphoma
- Marshak R H, Linder A E, Maklansky D. Immunoglobulin disorders of the small bowel. *Radiol Clin North Am* 1976;14(3):477-491. Not about celiac and GI lymphoma
- Marshak R H, Lindner A E, Maklansky D. Lymphoreticular disorders of the gastrointestinal tract: roentgenographic features. *Gastrointest Radiol* 1979;4(2):103-120. Not about celiac and GI lymphoma
- Mathus-Vliegen E M. Coeliac disease and lymphoma: current status. *Neth J Med* 1996;49(5):212-220. Review article
- Mathus-Vliegen E M H. Lymphoma in coeliac disease. *J R Soc Med* 1995;88(12):672-677. Review article
- Mathus-Vliegen E M, Van Halteren H, Tytgat G N. Malignant lymphoma in coeliac disease: various manifestations with distinct symptomatology and prognosis?. *J Inter Med* 1994;236(1):43-49. Does not address the question
- Maurino Eduardo, Niveloni Sonia, Chernavsky Alejandra et al. Azathioprine in refractory sprue: results from a prospective, open-label study. *Am J Gastroenterol* 2002;97(10):2595-2602. Not about celiac and GI lymphoma
- Mazzacca G. Diet, coeliac disease and gastrointestinal neoplasm. *Adv Exp Med Biol* 1993;348:133-136. Not about celiac and GI lymphoma
- McCrae W M, Eastwood M A, Martin M R et al. Neglected coeliac disease. *Lancet* 1975;1(7900):187-190. Does not address the question
- McElvaney N G, Duignan R, Fielding J F. Coeliac disease: clinical presentations, correlations of dietary compliance, symptomatic response and repeat biopsy findings. *Ulster Med J* 1992;61(2):134-138. Does not address the question
- McPherson J R. Jejunal biopsy. *Med Clin North Am* 1970;54(4):851-862. Not about celiac and GI lymphoma
- McPherson J R. Jejunal biopsy in the diagnosis of malabsorption syndromes. *Dis Colon Rectum* 1965;8(6):425-430. Not about celiac and GI lymphoma
- McPhillips J. Understanding coeliac disease: symptoms and long-term risks. *Br J Nurs* 2000;9(8):479-483. Not about celiac and GI lymphoma
- Mead G M, Whitehouse J M, Thompson J et al. Clinical features and management of malignant histiocytosis of the intestine. *Cancer* 1987;60(11):2791-2796. Does not address the question
- Mention Jean, Ben Ahmed, Melika Begue et al. Interleukin 15: a key to disrupted intraepithelial lymphocyte homeostasis and lymphomagenesis in celiac disease. *Gastroenterology* 2003;125(3):730-745. Not about celiac and GI lymphoma
- Michalski J P, McCombs C C. Celiac disease: clinical features and pathogenesis. *Am J Med Sci* 1994;307(3):204-211. Not about celiac and GI lymphoma
- Milovic V, Stein J, Caspary W F. Intestinal malabsorption: Pathophysiology, clinical signs and symptoms, diagnosis and treatment (First part). *Arch Gastroenterohepatol* 1999;18(3-4):65-74. Not about celiac and GI lymphoma
- Montgomery R D, Atiyeh M, Scales W R et al. Intestinal absorption in Saudi Arabia: an evaluation of the one hour blood xylose test. *Trans R Soc Trop Med Hyg* 1982;76(1):25-28. Not about celiac and GI lymphoma
- Morgan D R, Holgate C S, Dixon M F et al. Primary small intestinal lymphoma: a study of 39 cases. *Am J Pathol* 1985;147(3):211-221. Not about celiac and GI lymphoma
- Mulder Chris J J, Hadithi Mohammed M, Rostami Kamran et al. Coeliac disease--has the time come for routine mass screening? In 2002--2010--2020?. *Rom J Gastroenterol* 2002;11(3):179-182. Not about celiac and GI lymphoma
- Mulder C J, Wahab P J, Moshaver B et al. Refractory coeliac disease: a window between coeliac disease and enteropathy associated T cell lymphoma. *Scandinavian Journal of Gastroenterology.Supplement* 2000;(232):32-37. Review article

- Murray A, Cuevas E C, Jones D B et al. Study of the immunohistochemistry and T cell clonality of enteropathy-associated T cell lymphoma. *Am J Pathol* 1995;146(2):509-519. Not about celiac and GI lymphoma
- Mussche M, Thienpont L. Adult celiac disease complicated by intestinal reticulum cell sarcoma with high serum IgA level. *Acta Clin Belg* 1974;29(6):388-393. Does not address the question
- Neild G H. Coeliac disease: a graft-versus-host-like reaction localised to the small bowel wall?. *Lancet* 1981;1(8224):811-812. Does not address the question
- Nelsen D A. Gluten-sensitive enteropathy (celiac disease): More common than you think. *Am Fam Phys* 2002;66(12):2259-2266+2269. Not about celiac and GI lymphoma
- Nicolas M E O, Krause P K, Gibson L E et al. Dermatitis herpetiformis. *Int J Dermatol* 2003;42(8):588-600. Not about celiac and GI lymphoma
- Novis B H, Bank S, Marks I N. Gastric acid secretion and intestinal malabsorption. *South African Medical Journal.Suid-Afrikaanse Tydskrif Vir Geneeskunde* 1973;47(26):1139-1142. Not about celiac and GI lymphoma
- Novis B H, Bank S, Marks I N et al. Abdominal lymphoma presenting with malabsorption. *Qjm - Monthly Journal of the Association of Physicians* 1971;40(160):521-540. Does not address the question
- O'Boyle C J, Kerin M J, Feeley K et al. Primary small intestinal tumours: increased incidence of lymphoma and improved survival. *Ann R Coll Surg Engl* 1998;80(5):332-334. Does not address the question
- O'Connor T M, Cronin C C, Loane J F et al. Type 1 diabetes mellitus, coeliac disease, and lymphoma: a report of four cases. *Diabetic Medicine - a Journal of the British Diabetic Association* 1999;16(7):614-617. Does not address the question
- O'Driscoll B R, Stevens F M, O'Gorman T A et al. HLA type of patients with coeliac disease and malignancy in the west of Ireland. *Gut* 1982;23(8):662-665. Pathogenesis only
- O'Farrelly C. Is villous atrophy always and only the result of gluten sensitive disease of the intestine?. *Eur J Gastroenterol Hepatol* 2000;12(6):605-608. Not about celiac and GI lymphoma
- O'Farrelly C, Feighery C, O'Briain D S et al. Humoral response to wheat protein in patients with coeliac disease and enteropathy associated T cell lymphoma. *Br Med J (Clin Res Ed)* 1986;293(6552):908-910. Not about celiac and GI lymphoma
- O'Grady J G, Stevens F M, McCarthy C F. Celiac disease: does hyposplenism predispose to the development of malignant disease?. *Am J Gastroenterol* 1985;80(1):27-29. Does not address the question
- O'Grady J G, Stevens F M, Harding B et al. Hyposplenism and gluten-sensitive enteropathy. Natural history, incidence, and relationship to diet and small bowel morphology. *Gastroenterology* 1984;87(6):1326-1331. Not about celiac and GI lymphoma
- O'Mahony S, Howdle P D, Losowsky M S. Review article: management of patients with non-responsive coeliac disease. *Aliment Pharmacol Ther* 1996;10(5):671-680. Review article
- O'Malley Martin E, Wilson Stephanie R. US of gastrointestinal tract abnormalities with CT correlation. *Radiographics - a Review Publication of the Radiological Society of North America, Inc* 2003;23(1):59-72. Not about celiac and GI lymphoma
- Oberhuber G. Histopathology of celiac disease. *Biomed Pharmacother* 2000;54(7):368-372. Not about celiac and GI lymphoma
- Otto H F, Bettmann I, Weltzien J V et al. Primary intestinal lymphomas. *Virchows Archiv.A, Pathological Anatomy and Histology* 1981;391(1):9-31. Review article
- Parnell N D, Ciclitira P J. Review article: coeliac disease and its management. *Aliment Pharmacol Ther* 1999;13(1):1-13. Not about celiac and GI lymphoma
- Parry Sally D, Welfare Mark R, Cobden Irving et al. Push enteroscopy in a UK district general hospital: experience of 51 cases over 2 years. *Eur J Gastroenterol Hepatol* 2002;14(3):305-309. Not about celiac and GI lymphoma
- Patey-Mariaud de, Serre Cellier C, Jabri B et al. Distinction between coeliac disease and refractory sprue: a simple immunohistochemical method. *Histopathology* 2000;37(1):70-77. Not about celiac and GI lymphoma
- Pearce Allum B, Sinclair David, Duncan Hamish D et al. Use of the anti-endomysial antibody test to diagnose coeliac disease in clinical practice. *Clin Lab* 2002;48(5-6):319-325. Not about celiac and GI lymphoma
- Perera D R, Weinstein W M, Rubin C E. Symposium on pathology of the gastrointestinal tract-Part II. Small intestinal biopsy. *Hum Pathol* 1975;6(2):157-217. Not about celiac and GI lymphoma
- Peters U, Askling J, Gridley G et al. Causes of death in patients with celiac disease in a population-based

- Swedish cohort. *Arch Intern Med* 2003;163(13):1566-1572. Double publication of included data
- Pricolo V E, Mangi A A, Aswad B et al. Gastrointestinal malignancies in patients with celiac sprue. *Am J Surg* 1998;176(4):344-347. Does not address the question
- Pruessner H T. Detecting celiac disease in your patients. *Am Fam Physician* 1998;57(5):1023-34, 1039. Not about celiac and GI lymphoma
- Purtilo D T, Grealley J. Coeliac disease and malignancy. *Lancet* 1983;1(8327):771 Not about celiac and GI lymphoma
- Ramot B, Many A. Primary intestinal lymphoma: clinical manifestations and possible effect of environmental factors. *Recent Results in Cancer Research.Fortschritte Der Krebsforschung.Progres Dans Les Recherches Sur Le Cancer* 1972;39:193-199. Review article
- Rampertab S D, Forde K A, Green P H R. Small bowel neoplasia in coeliac disease. *Gut* 2003;52(8):1211-1214. Not about celiac and GI lymphoma
- Read A E. Malignancy and steatorrhea. *Bibl Paediatr* 1968;87:182-190. Not about celiac and GI lymphoma
- Reunala T L, Leonard J N. Malignant disease in dermatitis herpetiformis. *Clin Dermatol* 1991;9(3):369-373. Not about celiac and GI lymphoma
- Reunala T, Helin H, Kuokkanen K et al. Lymphoma in dermatitis herpetiformis: Report of four cases. *Acta Derm-Venerol* 1982;62(4):343-346. Not about celiac and GI lymphoma
- Ricart E, Bouma G, Salvador Pen et al. The therapeutic spectrum of infliximab and tumor necrosis factor immunomodulation in chronic inflammatory diseases. *Drugs Today* 2002;38(11):725-744. Not about celiac and GI lymphoma
- Risch N. Assessing the role of HLA-linked and unlinked determinants of disease. *Am J Hum Genet* 1987;40(1):1-14. Not about celiac and GI lymphoma
- Robert M E, Ament M E, Weinstein W M. The histologic spectrum and clinical outcome of refractory and unclassified sprue. *Am J Surg Pathol* 2000;24(5):676-687. Not about celiac and GI lymphoma
- Robertson D A F, Dixon M F, Scott B B. Small intestinal ulceration: Diagnostic difficulties in relation to coeliac disease. *Gut* 1983;24(6):565-574. Not about celiac and GI lymphoma
- Robertson D A F, Swinson C M, Hall R et al. Coeliac disease, splenic function, and malignancy. *Gut* 1982;23(8):666-669. Not about celiac and GI lymphoma
- Rossini F P. Quo vadis capsule endoscopy?. *Dig Liver Dis* 2002;34(8):537-539. Not about celiac and GI lymphoma
- Rowland M, Imrie C, Bourke B et al. How should *Helicobacter pylori* infected children be managed?. *Gut* 1999;45(Suppl 1):36-39. Not about celiac and GI lymphoma
- Ruan E A, Komorowski R A, Hogan W J et al. Nongranulomatous chronic idiopathic enterocolitis: Clinicopathologic profile and response to corticosteroids. *Gastroenterology* 1996;111(3):629-637. Not about celiac and GI lymphoma
- Rubesin S E. Simplified approach to differential diagnosis of small bowel abnormalities. *Radiol Clin North Am* 2003;41(2):343-364. Not about celiac and GI lymphoma
- Rubesin S E, Gilchrist A M, Bronner M et al. Non-Hodgkin lymphoma of the small intestine. *Radiographics - a Review Publication of the Radiological Society of North America, Inc* 1990;10(6):985-998. Review article
- Rubesin S E, Herlinger H, Saul S H et al. Adult celiac disease and its complications. *Radiographics - a Review Publication of the Radiological Society of North America, Inc* 1989;9(6):1045-1066. Review article
- Ruskone-Fourmestraux A, Rambaud J C. Gastrointestinal lymphoma: prevention and treatment of early lesions. *Best Practice & Research.Clinical Gastroenterology* 2001;15(2):337-354. Review article
- Ryan B M, Kelleher D. Refractory celiac disease. *Gastroenterology* 2000;119(1):243-251. Review article
- Ryan J C. Premalignant conditions of the small intestine. *Semin Gastrointest Dis* 1996;7(2):88-93. Review article
- Sampson H A. Food allergy. *Curr Opin Immunol* 1989;2(4):542-547. Not about celiac and GI lymphoma
- Sategna-Guidetti C, Grosso S, Bruno M et al. Comparison of serum anti-gliadin, anti-endomysium, and anti-jejunum antibodies in adult celiac sprue. *J Clin Gastroenterol* 1995;20(1):17-21. Not about celiac and GI lymphoma
- Savilahti E, Ormala T, Saukkonen T et al. Jejuna of patients with insulin-dependent diabetes mellitus

- (IDDM) show signs of immune activation. *Clin Exp Immunol* 1999;116(1):70-77. Not about celiac and GI lymphoma
- Schattner A, Kozak N, Lassry Y et al. Primary intestinal T-cell lymphoma and sclerosing cholangitis: A cytokine-mediated association?. *J Intern Med* 1998;244(6):537-541. Not about celiac and GI lymphoma
- Schmitt-Graff A, Hummel M, Zemlin M et al. Intestinal T-cell lymphoma: a reassessment of cytomorphological and phenotypic features in relation to patterns of small bowel remodelling. *Virchows Archiv - an International Journal of Pathology* 1996;429(1):27-36. Not about celiac and GI lymphoma
- Schweizer J J, Oren A, Mearin M L. Cancer in children with celiac disease: a survey of the European Society of Paediatric Gastroenterology, Hepatology and Nutrition. *J Pediatr Gastroenterol Nutr* 2001;33(1):97-100. Not about celiac and GI lymphoma
- Scott B B, Losowsky M S. Depressed cell mediated immunity in coeliac disease. *Gut* 1976;17(11):900-905. Not about celiac and GI lymphoma
- Seaman W B, Galdabini J J. Intestinal obstruction complicating adult Celiac disease. *New Engl J Med* 1976;295(22):1242-1248. Not about celiac and GI lymphoma
- Sedghizadeh Parish P, Shuler Charles F, Allen Carl M et al. Celiac disease and recurrent aphthous stomatitis: a report and review of the literature. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod* 2002;94(4):474-478. Not about celiac and GI lymphoma
- Selby W, Gallagher N D. Development of malignancy in 9 of 96 patients with adult coeliac disease. *Aust New Zealand J Med* 1978;8(6):669 Does not address the question
- Seligmann M. Alpha heavy chain disease. *Blut* 1975;31(1):1-4. Not about celiac and GI lymphoma
- Selzer G, Sherman G, Callihan T R et al. Primary small intestinal lymphomas and alpha-heavy-chain disease. A study of 43 cases from a pathology department in Israel. *Isr J Med Sci* 1979;15(2):111-123. Not about celiac and GI lymphoma
- Seraphin Peter, Mobarhan Sohrab. Mortality in patients with celiac disease. *Nutr Rev* 2002;60(4):116-118. Review article
- Shaoul R, Marcon M A, Okada Y et al. Gastric metaplasia: a frequently overlooked feature of duodenal biopsy specimens in untreated celiac disease. *J Pediatr Gastroenterol Nutr* 2000;30(4):397-403. Not about celiac and GI lymphoma
- Sharma B C, Bhasin D K, Makharia G et al. Diagnostic value of push-type enteroscopy: A report from India. *Am J Gastroenterol* 2000;95(1):137-140. Not about celiac and GI lymphoma
- Sheldon W. Prognosis in early adult life of coeliac children treated with a gluten-free diet. *Br Med J* 1969;2(654):401-404. Not about celiac and GI lymphoma
- Shepherd N A, Blackshaw A J, Hall P A et al. Malignant lymphoma with eosinophilia of the gastrointestinal tract. *Histopathology* 1987;11(2):115-130. Does not address the question
- Shils M E. Nutritional problems associated with gastrointestinal and genitourinary cancer. *Cancer Res* 1977;37(7 Pt 2):2366-2372. Not about celiac and GI lymphoma
- Shiner M. Present trends in coeliac disease. *Postgrad Med J* 1984;60(709):773-778. Not about celiac and GI lymphoma
- Shiner M, Pearson J R. Abnormalities in the jejunal mucosa in Arab children. *Gastroenterol Clin Biol* 1981;5(6-7):663-673. Not about celiac and GI lymphoma
- Shreeve D R, Horrocks P, Mainwaring A R. Steatorrhea and intra-abdominal lymphoma. *Scand J Gastroenterol* 1968;3(6):577-585. Does not address the question
- Signore A, Chianelli M, Annovazzi A et al. Imaging active lymphocytic infiltration in coeliac disease with iodine-123-interleukin-2 and the response to diet. *Eur J Nucl Med* 2000;27(1):18-24. Not about celiac and GI lymphoma
- Sigurgeirsson B, Agnarsson B A, Lindelof B. Risk of lymphoma in patients with dermatitis herpetiformis. *BMJ* 1994;308(6920):13-15. Not about celiac and GI lymphoma
- Simu G, Jung J, Vojth V et al. Microscopic observations concerning the autoimmune response escalation into malignant lymphoma. *Morphol Embryol (Bucur)* 1986;32(2):99-104. Not about celiac and GI lymphoma
- Sjaastad O. Urinary excretion of free and conjugated histamine in various gastrointestinal disorders. *Acta Med Scand* 1969;185(6):495-499. Not about celiac and GI lymphoma
- Skinner J M. Gastrointestinal lymphoma. *Pathology* 1985;17(2):193-203. Review article

- Skinner J M, Whitehead R. Immunological aspects of gastro-intestinal pathology. *Curr Top Pathol* 1976;63:259-288. Not about celiac and GI lymphoma
- Slavutsky I, Gomez J C, Pedreira S et al. Increased rDNA transcriptional activity in celiac disease. *J Clin Gastroenterol* 1992;14(1):11-14. Not about celiac and GI lymphoma
- Sleisenger M H, Brandborg L L. Malabsorption. *Major Probl Intern Med* 1977;131-261. Not about celiac and GI lymphoma
- Smith E P, Zone J J. Dermatitis herpetiformis and linear IgA bullous dermatosis. *Dermatol Clin* 1993;11(3):511-526. Not about celiac and GI lymphoma
- Sollid L, Bruserud O, Gaudernack G et al. The role of the CD8-positive subset of T cells in proliferative responses to soluble antigens. I. Studies of healthy subjects, type 1 diabetics, and coeliac disease patients. *Scand J Immunol* 1986;23(4):461-467. Not about celiac and GI lymphoma
- Sorensen H T, Fonager K. Risk estimation of disorders associated with coeliac disease. A 16-year Danish nationwide follow-up study based on hospital discharge data. Implications for screening. *Int J Risk Saf Med* 1996;8(2):137-140. Unable to extract data
- Spence W J, Ritchie S. Lymphomas of small bowel and their relationship to idiopathic steatorrhea. *Canadian Journal of Surgery. Journal Canadien De Chirurgie* 1969;12(2):207-209. Not about celiac and GI lymphoma
- Spencer J, Cerf-Bensussan N, Jarry A et al. Enteropathy-associated T cell lymphoma (malignant histiocytosis of the intestine) is recognized by a monoclonal antibody (HML-1) that defines a membrane molecule on human mucosal lymphocytes. *Am J Pathol* 1988;132(1):1-5. Not about celiac and GI lymphoma
- Spencer J, MacDonald T T, Diss T C et al. Changes in intraepithelial lymphocyte subpopulations in coeliac disease and enteropathy associated T cell lymphoma (malignant histiocytosis of the intestine). *Gut* 1989;30(3):339-346. Not about celiac and GI lymphoma
- Spiro H M. About this issue. *J Clin Gastroenterol* 1995;21(2):81 Not about celiac and GI lymphoma
- Stazi Maria, Antonietta Cotichini, Rodolfo Patriarca et al. The Italian Twin Project: from the personal identification number to a national twin registry. *Twin Research - the Official Journal of the International Society for Twin Studies* 2002;5(5):382-386. Not about celiac and GI lymphoma
- Stein E, Shane E. Secondary osteoporosis. *Endocrinol Metab Clin North Am* 2003;32(1):115-134. Not about celiac and GI lymphoma
- Stein H, Dienemann D, Sperling M et al. Identification of a T cell lymphoma category derived from intestinal-mucosa-associated T cells. *Lancet* 1988;2(8619):1053-1054. Not about celiac and GI lymphoma
- Stenhammar L, Brandt A, Wagermark J. A family study of coeliac disease. *Acta Paediatr Scand* 1982;71(4):625-628. Not about celiac and GI lymphoma
- Stenstam M, Brandt L, Hallberg T. Subnormal response of blood lymphocytes to phytohaemagglutinin in adult coeliac disease complicated by intestinal lymphoma. *Scand J Gastroenterol* 1983;18(6):777-781. Not about celiac and GI lymphoma
- Stewart J. Child coeliacs in adult life. *Ir Med J* 1974;67(15):411-414. Not about celiac and GI lymphoma
- Stokes P L, Holmes G K T. Malignancy. *Clin Gastroenterol* 1974;3(1):159-170. Not about celiac and GI lymphoma
- Stokes P L, Asquith P, Waterhouse J H et al. Malignancy in relatives of patients with adult coeliac disease. *Gut* 1972;13(10):836-837. Not about celiac and GI lymphoma
- Stokes P L, Prior P, Sorahan T M. Malignancy in relatives of patients with coeliac disease. *Br J Prev Soc Med* 1976;30(1):17-21. Not about celiac and GI lymphoma
- Swerdlow A J, Whittaker S, Carpenter L M et al. Mortality and cancer incidence in patients with dermatitis herpetiformis: a cohort study. *Br J Dermatol* 1993;129(2):140-144. Not about celiac and GI lymphoma
- Swinson C M, Hall P J, Bedford P A et al. HLA antigens in coeliac disease associated with malignancy. *Gut* 1983;24(10):925-928. Not about celiac and GI lymphoma
- Swinson C M, Slavin G, Coles E C et al. Coeliac disease and malignancy. *Lancet* 1983;1(8316):111-115. Not about celiac and GI lymphoma
- Taggart D P, Imrie C W. A new pattern of histologic predominance and distribution of malignant diseases of the small intestine. *Surg Gynecol Obstet* 1987;165(6):515-518. Not about celiac and GI lymphoma

- Thompson H. Necropsy studies on adult coeliac disease. *J Clin Pathol* 1974;27(9):710-721. Not about celiac and GI lymphoma
- Thompson H. Pathology of coeliac disease. *Curr Top Pathol* 1976;6349-75. Not about celiac and GI lymphoma
- Thompson H. The small intestine at autopsy. *Clin Gastroenterol* 1974;3(1):171-181. Not about celiac and GI lymphoma
- Thornquist H, Jacobsen G S, Dahl L B et al. Coeliac disease and gluten-free diet: a following-up study of fifteen young adults. *Ann Nutr Metab* 1993;37(6):295-301. Not about celiac and GI lymphoma
- Trejdosiewicz L K, Malizia G, Oakes J et al. Expression of the common acute lymphoblastic leukaemia antigen (CALLA gp100) in the brush border of normal jejunum and jejunum of patients with coeliac disease. *J Clin Pathol* 1985;38(9):1002-1006. Not about celiac and GI lymphoma
- Trier J S. Diagnostic value of peroral biopsy of the proximal small intestine. *N Engl J Med* 1971;285(26):1470-1473. Not about celiac and GI lymphoma
- Troncone R, Greco L, Auricchio S. Gluten-sensitive enteropathy. *Pediatr Clin North Am* 1996;43(2):355-373. Not about celiac and GI lymphoma
- Tursi A, Gasbarrini G. Acquired gastric mucosa-associated lymphoid tissue (MALT): a review with special emphasis on association with extragastric diseases and management problems of gastric MALT. *J Clin Gastroenterol* 1999;29(2):133-137. Review article
- Vahedi Kouroche, Mascart Françoise, Mary Jean et al. Reliability of antitransglutaminase antibodies as predictors of gluten-free diet compliance in adult celiac disease. *Am J Gastroenterol* 2003;98(5):1079-1087. Not about celiac and GI lymphoma
- Verkarre V, Asnafi V, Lecomte T et al. Refractory coeliac sprue is a diffuse gastrointestinal disease. *Gut* 2003;52(2):205-211. Does not address the question
- Verkarre V, Romana S, Cellier C et al. Recurrent partial trisomy 1q22-q44 in clonal intraepithelial lymphocytes in refractory celiac sprue. *Gastroenterology* 2003;125(1):40-46. Does not address the question
- Veyrieres M, Baillet P, Hay J M et al. Factors influencing long-term survival in 100 cases of small intestine primary adenocarcinoma. *Am J Surg* 1997;173(3):237-239. Not about celiac and GI lymphoma
- Wahab P J, Crusius J B A, Meijer J W R et al. Cyclosporin in the treatment of adults with refractory coeliac disease - An open pilot study. *Aliment Pharmacol Ther* 2000;14(6):767-774. Not about celiac and GI lymphoma
- Wahab P J, Meijer Jos W R, Mulder C J J. Histologic follow-up of people with celiac disease on a gluten-free diet: slow and incomplete recovery. *Am J Clin Pathol* 2002;118(3):459-463. Not a controlled study
- Walker W A, Hong R. Immunology of the gastrointestinal tract. II. *Eur J Pediatr* 1973;83(5):711-720. Not about celiac and GI lymphoma
- Walsh S V, Egan L J, Connolly C E et al. Enteropathy-associated T-cell lymphoma in the West of Ireland: low-frequency of Epstein-Barr virus in these tumors. *Modern Pathology - an Official Journal of the United States and Canadian Academy of Pathology, Inc* 1995;8(7):753-757. Does not address the question
- Wartiovaara J, Tarpila S. Cell contacts and polysomes in irradiated human jejunal mucosa at onset of epithelial repair. *Laboratory Investigation: A Journal of Technical Methods and Pathology* 1977;36(6):660-665. Not about celiac and GI lymphoma
- Washington K, Stenzel T T, Buckley R H et al. Gastrointestinal pathology in patients with common variable immunodeficiency and X-linked agammaglobulinemia. *Am J Surg Pathol* 1996;20(10):1240-1252. Not about celiac and GI lymphoma
- Westergaard H. The sprue syndromes. *Am J Med Sci* 1985;290(6):249-262. Not about celiac and GI lymphoma
- Whitehead R. Primary lymphadenopathy complicating idiopathic steatorrhea. *Gut* 1968;9(5):569-575. Not about celiac and GI lymphoma
- Whitehead R, Skinner J M. Morphology of the gut associated lymphoid system in health and disease: a review. *Pathology* 1978;10(1):3-16. Review article
- Whorwell P J, Alderson M R, Foster K J et al. Death from ischaemic heart-disease and malignancy in adult patients with coeliac disease. *Lancet* 1976;2(7977):113-114. Does not address the question
- Williamson R C, Welch C E, Malt R A. Adenocarcinoma and lymphoma of the small intestine. Distribution and etiologic associations. *Ann Surg* 1983;197(2):172-178. Does not address the question
- Wilson F A, Dietschy J M. Differential diagnostic approach to clinical problems of malabsorption. *Gastroenterology* 1971;61(6):911-931. Not about celiac and GI lymphoma

Wright D H. Enteropathy associated T cell lymphoma. *Cancer Surv* 1997;30249-261. Review article

Wright D H. The major complications of coeliac disease. *Bailliere's Clinical Gastroenterology* 1995;9(2):351-369. Review article

Wright D H. The identification and classification of non-Hodgkin's lymphoma: A review. *Diagn Histopathol* 1982;5(2):73-111. Not about celiac and GI lymphoma

Wu T T, Hamilton S R. Lymphocytic gastritis: association with etiology and topology. *Am J Surg Pathol* 1999;23(2):153-158. Not about celiac and GI lymphoma

Young W F, Pringle E M. 110 children with coeliac disease, 1950-1969. *Arch Dis Child*

1971;46(248):421-436. Not about celiac and GI lymphoma

Zarrabi M H, Rosner F. Middle Eastern intestinal lymphoma: report of a case and review of the literature. *Am J Med Sci* 1976;272(1):101-119. Not about celiac and GI lymphoma

Zoli G, Corazza G R, Parente R et al. Defective phagocyte activity in adult coeliac disease. *Eur J Gastroenterol Hepatol* 1992;4(8):675-678. Not about celiac and GI lymphoma

Zucca E, Roggero E, Bertoni F et al. Primary extranodal non-Hodgkin's lymphomas. Part 1: Gastrointestinal, cutaneous and genitourinary lymphomas. *Ann Oncol* 1997;8(8):727-737. Not about celiac and GI lymphoma

## Objective 4 – Expected Consequences of Testing for CD

Aarbakke J, Schjonsby H. Value of urinary simple phenol and indican determinations in the diagnosis of the stagnant loop syndrome. *Scand J Gastroenterol* 1976;11(4):409-414. Not about consequences of testing

Abdulkarim Ahmad S, Burgart Lawrence J, See Jacalyn et al. Etiology of nonresponsive celiac disease: results of a systematic approach. *Am J Gastroenterol* 2002;97(8):2016-2021. Not about consequences of testing

Acalovschi M, Jayanthi V, Probert C S et al. Management of coeliac disease: a changing diagnostic approach but what value in follow up?. *Qual Health Care* 1992;1(1):26-28. Not about consequences of testing

Acerini C L, Ahmed M L, Ross K M et al. Coeliac disease in children and adolescents with IDDM: clinical characteristics and response to gluten-free diet. *Diabet Med* 1998;15(1):38-44. Not about consequences of testing

Ackerman Z, Eliakim R, Stalnikowicz R et al. Role of small bowel biopsy in the endoscopic evaluation of adults with iron deficiency anemia. *Am J Gastroenterol* 1996;91(10):2099-2102. Not about consequences of testing

Adrian T E, Besterman H S, Mallinson C N et al. Plasma trypsin in chronic pancreatitis and pancreatic adenocarcinoma. *Clin Chim Acta* 1979;97(2-3):205-212. Not about consequences of testing

Agardh D, Nilsson A, Carlsson A et al. Tissue transglutaminase autoantibodies and human leucocyte

antigen in Down Syndrome patients with coeliac disease. *Acta Paediatr* 2002;91(1):34-38. Not about consequences of testing

Agardh Daniel, Borulf Stefan, Lernmark Ake et al. Tissue transglutaminase immunoglobulin isotypes in children with untreated and treated celiac disease. *J Pediatr Gastroenterol Nutr* 2003;36(1):77-82. Not about consequences of testing

Agreus L, Svardsudd K, Tibblin G et al. Endomysium antibodies are superior to gliadin antibodies in screening for coeliac disease in patients presenting supposed functional gastrointestinal symptoms. *Scand J Prim Health Care* 2000;18(2):105-110. Not about consequences of testing

Aine L. Coeliac-type permanent-tooth enamel defects. *Ann Med* 1996;28(1):9-12. Not about consequences of testing

Akesson B, Floren C H. Use of the triolein breath test for the demonstration of fat malabsorption in coeliac disease. *Scand J Gastroenterol* 1984;19(3):307-314. Not about consequences of testing

Aktay A N, Lee P C, Kumar V et al. The prevalence and clinical characteristics of celiac disease in juvenile diabetes in Wisconsin. *J Pediatr Gastroenterol Nutr* 2001;33(4):462-465. Not about consequences of testing

Al Attas R A. How common is celiac disease in Eastern Saudi Arabia?. *Ann Saudi Med* 2002;22(5-6):315-319. Not about consequences of testing

- Altuntas B, Filik B, Ensari A et al. Can zinc deficiency be used as a marker for the diagnosis of celiac disease in Turkish children with short stature?. *Pediatr Int* 2000;42(6):682-684. Not about consequences of testing
- Altuntas B, Kansu A, Ensari A et al. Celiac disease in Turkish short-statured children and the value of antigliadin antibody in diagnosis. *Acta Paediatr Jpn* 1998;40(5):457-460. Not about consequences of testing
- Amann S T, Josephson S A, Toskes P P. Acid steatorrhea: a simple, rapid gravimetric method to determine steatorrhea. *Am J Gastroenterol* 1997;92(12):2280-2284. Not about consequences of testing
- Amara W, Husebekk A. Improved method for serological testing in celiac disease--IgA anti-endomysium antibody test: a comparison between monkey oesophagus and human umbilical cord as substrate in indirect immunofluorescence test. *Scand J Clin Lab Invest* 1998;58(7):547-554. Not about consequences of testing
- Ament M E, Perera D R, Esther L J. Sucrase-isomaltase deficiency-a frequently misdiagnosed disease. *Eur J Pediatr* 1973;83(5):721-727. Not about consequences of testing
- Amenta J S. Lipiodol absorption and urinary iodide excretion as a screening test for steatorrhea. *Clin Chem* 1969;15(4):295-306. Not about consequences of testing
- Amin M, Eckhardt T, Kapitza S et al. Correlation between tissue transglutaminase antibodies and endomysium antibodies as diagnostic markers of coeliac disease. *Clin Chim Acta* 1999;282(1-2):219-225. Not about consequences of testing
- Ammann R W, Akovbiantz A, Hacki W et al. Diagnostic value of the fecal chymotrypsin test in pancreatic insufficiency, particularly chronic pancreatitis: correlation with the pancreozymin-secretin test, fecal fat excretion and final clinical diagnosis. *Digestion* 1981;21(6):281-289. Not about consequences of testing
- Ammann R, Kashiwagi H. Pancreatic exocrine insufficiency and proteolytic enzymes in stool. A critical evaluation of a new diagnostic test in various forms of steatorrhea. *Helv Med Acta* 1966;33(3):220-228. Not about consequences of testing
- Anand A C, Elias E, Neuberger J M. End-stage primary biliary cirrhosis in a first generation migrant south Asian population. *Eur J Gastroenterol Hepatol* 1996;8(7):663-666. Not about consequences of testing
- Anand B S, Piris J, Jerrome D W et al. The timing of histological damage following a single challenge with gluten in treated coeliac disease. *Q J Med* 1981;50(197):83-94. Not about consequences of testing
- Anand B S, Piris J, Truelove S C. The role of various cereals in coeliac disease. *Q J Med* 1978;47(185):101-110. Not about consequences of testing
- Anand B S, Truelove S C, Offord R E. Skin test for coeliac disease using a subfraction of gluten. *Lancet* 1977;1(8003):118-120. Not about consequences of testing
- Andersson H, Dotevall G, Mobacken H. Malignant mesenteric lymphoma in a patient with dermatitis herpetiformis, hypochlorhydria, and small-bowel abnormalities. *Scand J Gastroenterol* 1971;6(5):397-399. Not about consequences of testing
- Anonymous. A long-term survey of coeliac disease. *Med J Aust* 1971;2(20):992. Not about consequences of testing
- Anonymous. American Gastroenterological Association medical position statement: Celiac Sprue. *Gastroenterology* 2001;120(6):1522-1525. Not about consequences of testing
- Anonymous. American Thoracic Society/European Respiratory Society statement: Standards for the diagnosis and management of individuals with alpha-1 antitrypsin deficiency. *Am J Respir Crit Care Med* 2003;168(7):818-900. Not about consequences of testing
- Anonymous. Beyond the iceberg: the present and future of coeliac disease screening. Proceedings of a symposium. Ancona, Italy, 20-21 October 1995. *Acta Paediatr* 1996; 412(Suppl):1-84. Unable to obtain article
- Anonymous. Catch-up growth in celiac disease. *Nutr Rev* 1973;31(1):13-14. Not about consequences of testing
- Anonymous. Celiac disease and how to live with it. *Harvard Women's Health Watch* 2001;8(9):3-4. Not about consequences of testing
- Anonymous. Celiac disease: more than an irritable bowel. *Harvard Women's Health Watch* 2000;7(11):7. Not about consequences of testing
- Anonymous. Coeliac disease. *Br Med J* 1970;4(726):1-2. Not about consequences of testing
- Anonymous. HIV-associated enteropathy. *Lancet* 1989;2(8666):777-778. Not about consequences of testing

- Anonymous. Screening for coeliac disease has benefits in Williams syndrome. *Arch Dis Child* 2002;86(4):275. Not about consequences of testing
- Anonymous. Small-intestinal morphology in infectious hepatitis. *JAMA* 1969;209(11):1713-1714. Not about consequences of testing
- Anson O, Weizman Z, Zeevi N. Celiac disease: parental knowledge and attitudes of dietary compliance. *Pediatrics* 1990;85(1):98-103. Not about consequences of testing
- Aoun J P, Moukarbel N, Aftimos G. Value of duodenal endoscopic markers of villous atrophy. *J Med Liban* 2001;49(6):319-324. Not about consequences of testing
- Araya M, Mondragon A, Perez-Bravo F et al. Celiac disease in a Chilean population carrying Amerindian traits. *J Pediatr Gastroenterol Nutr* 2000; 31(4):381-386. Not about consequences of testing
- Artan R. Antigliadin antibody measurement as a screening test for childhood coeliac disease. *Int Med J* 1998;5(3):209-212. Not about consequences of testing
- Ascher H, Hahn-Zoric M, Hanson L A et al. Value of serologic markers for clinical diagnosis and population studies of coeliac disease. *Scand J Gastroenterol* 1996;31(1):61-67. Not about consequences of testing
- Ascher H, Lanner A, Kristiansson B. A new laboratory kit for anti-gliadin IgA at diagnosis and follow-up of childhood celiac disease. *J Pediatr Gastroenterol Nutr* 1990;10(4):443-450. Not about consequences of testing
- Ascher H. Paediatric aspects of coeliac disease: old challenges and new ones... *Digestive and Liver Disease - Official Journal of the Italian Society of Gastroenterology and the Italian Association for the Study of the Liver* 2002;34(3):216-224. Not about consequences of testing
- Ashabani A, Abushofa U, Abusrewill S et al. The prevalence of coeliac disease in Libyan children with type 1 diabetes mellitus. *Diabetes Metab Res Rev* 2003;19(1):69-75. Not about consequences of testing
- Ashabani A, Errabtea H, Shapan A et al. Serologic markers of untreated celiac disease in Libyan children: antigliadin, antitransglutaminase, antiendomysial, and anticalreticulin antibodies. *J Pediatr Gastroenterol Nutr* 2001;33(3):276-282. Not about consequences of testing
- Auricchio S, Cardelli M, De Ritis G. An in vitro animal model for the study of cereal components toxic in celiac disease. *Pediatr Res* 1984;18(12):1372-1378. Not about consequences of testing
- Auricchio S, Greco L, Troncone R. What is the true prevalence of coeliac disease?. *Gastroenterol Int* 1990;3(3):140-142. Not about consequences of testing
- Auricchio S, Mazzacca G, Tosi R et al. Coeliac disease as a familial condition: Identification of asymptomatic coeliac patients within family groups. *Gastroenterol Int* 1988;1(1):25-31. Not about consequences of testing
- Babron M-C, Nilsson S, Adamovic S et al. Meta and pooled analysis of European coeliac disease data. *Eur J Hum Genet* 2003;11(11):828-834. Not about consequences of testing
- Bagnasco M, Montagna P, De Alessandri A et al. IgA antiendomysium antibodies in human umbilical cord sections as a screening test in relatives of patients with celiac disease. *Allergy* 1997;52(10):1017-1021. Not about consequences of testing
- Bahia M, Rabello A, Brasileiro Filho G et al. Serum antigliadin antibody levels as a screening criterion before jejunal biopsy indication for celiac disease in a developing country. *Brazilian Journal of Medical and Biological Research = Revista Brasileira De Pesquisas Medicas E Biologicas / Sociedade Brasileira De Biofisica ...Et Al* 2001;34(11):1415-1420. Not about consequences of testing
- Bahna S L, Gandhi M D. Milk hypersensitivity. II. Practical aspects of diagnosis, treatment and prevention. *Ann Allergy* 1983;50(5):295-301. Not about consequences of testing
- Bai J C, Andrush A, Matelo G et al. Fecal fat concentration in the differential diagnosis of steatorrhea. *Am J Gastroenterol* 1989;84(1):27-30. Not about consequences of testing
- Bai J, Moran C, Martinez C et al. Celiac sprue after surgery of the upper gastrointestinal tract. Report of 10 patients with special attention to diagnosis, clinical behavior, and follow-up. *J Clin Gastroenterol* 1991;13(5):521-524. Not about consequences of testing
- Bailey D S, Freedman A R, Price S C et al. Early biochemical responses of the small intestine of coeliac patients to wheat gluten. *Gut* 1989;30(1):78-85. Not about consequences of testing
- Baker P G, Barry R E, Read A E. Detection of continuing gluten ingestion in treated coeliac patients. *Br Med J* 1975;1(5956):486-488. Not about consequences of testing
- Balasekaran R, Porter J L, Santa Ana C A et al. Positive results on tests for steatorrhea in persons consuming olestra potato chips. *Ann Intern Med* 2000;132(4):279-282. Not about consequences of testing

- Baldas V, Tommasini A, Trevisiol C et al. Development of a novel rapid non-invasive screening test for coeliac disease. *Gut* 2000;47(5):628-631. Not about consequences of testing
- Bamforth J, Murray P J, Roberts A H. Spurious steatorrhoea. *Br Med J* 1967;2(553):682 Not about consequences of testing
- Banks Sara M, Salovey Peter, Greener Susan et al. The effects of message framing on mammography utilization. *Health Psychol* 1995;14(2):178-184. Not about consequences of testing
- Barakat M H, Ali S M, Badawi A R et al. Peroral endoscopic duodenal biopsy in infants and children. *Acta Paediatr Scand* 1983;72(4):563-569. Not about consequences of testing
- Barbato M, Miglietta M R, Viola F et al. Impact of modification of diagnostic techniques and criteria on the presentation of celiac disease in the last 16 years. Observation in Rome. *Minerva Pediatr* 1996;48(9):359-363. Not about consequences of testing
- Bardella M T, Minoli G, Radaelli F et al. Reevaluation of duodenal endoscopic markers in the diagnosis of celiac disease. *Gastrointest Endosc* 2000;51(6):714-716. Not about consequences of testing
- Bardella M T, Minoli G, Ravizza D et al. Increased prevalence of celiac disease in patients with dyspepsia. *Arch Intern Med* 2000;160(10):1489-1491. Not about consequences of testing
- Bardella M T, Molteni N, Cesana B et al. IgA antigliadin antibodies, cellobiose/mannitol sugar test, and carotenemia in the diagnosis of and screening for celiac disease. *Am J Gastroenterol* 1991;86(3):309-311. Not about consequences of testing
- Bardella M T, Trovato C, Cesana B M et al. Serological markers for coeliac disease: is it time to change?. *Digestive and Liver Disease - Official Journal of the Italian Society of Gastroenterology and the Italian Association for the Study of the Liver* 2001;33(5):426-431. Not about consequences of testing
- Bardella M T, Vecchi M, Conte D et al. Chronic unexplained hypertransaminasemia may be caused by occult celiac disease. *Hepatology* 1999;29(3):654-657. Not about consequences of testing
- Barera G, Bianchi C, Calisti L et al. Screening of diabetic children for coeliac disease with antigliadin antibodies and HLA typing. *Arch Dis Child* 1991;66(4):491-494. Not about consequences of testing
- Barera G, Bonfanti R, Viscardi M et al. Occurrence of celiac disease after onset of type 1 diabetes: a 6-year prospective longitudinal study. *Pediatrics* 2002;109(5):833-838. Not about consequences of testing
- Barry R E, Barry R, Ene M D et al. Fluorescein dilaurate--tubeless test for pancreatic exocrine failure. *Lancet* 1982;2(8301):742-744. Not about consequences of testing
- Barry R E, Morris J S, Read A E. A case of small-intestinal mucosal atrophy. *Gut* 1970;11(9):743-747. Not about consequences of testing
- Barton D M, Baskar V, Kamalakannan D et al. An assessment of care of paediatric and adolescent patients with diabetes in a large district general hospital. *Diabet Med* 2003;20(5):394-398. Not about consequences of testing
- Basso D, Gallo N, Guariso G et al. Role of anti-transglutaminase (anti-tTG), anti-gliadin, and anti-endomysium serum antibodies in diagnosing celiac disease: a comparison of four different commercial kits for anti-tTG determination. *J Clin Lab Anal* 2001;15(3):112-115. Not about consequences of testing
- Baur X, Sander I, Posch A et al. Baker's asthma due to the enzyme xylanase - A new occupational allergen. *Clin Exp Allergy* 1998;28(12):1591-1593. Not about consequences of testing
- Beckett C G, Ciclitira P J. Celiac disease. *Curr Opin Gastroenterol* 1997;13(2):107-111. Not about consequences of testing
- Beckett C. A gut issue. *Nurs Times* 1999;95(8):65-6, 69. Not about consequences of testing
- Beers M H, Fink A, Beck J C. Screening recommendations for the elderly. *Am J Public Health* 1991;81(9):1131-1140. Not about consequences of testing
- Bejes C, Marvel M K. Attempting the improbable: Offering colorectal cancer screening to all appropriate patients. *Fam Pract Res J* 1992;12(1):83-90. Not about consequences of testing
- Bell D R. Differential diagnosis of diarrhoea in adults. *Br J Gen Pract* 1974;213(1273):47-53. Not about consequences of testing
- Belloni C, Avanzini M A, De Silvestri A et al. No evidence of autoimmunity in 6-year-old children immunized at birth with recombinant hepatitis B vaccine. *Pediatrics* 2002;110(1 Pt 1):E4 Not about consequences of testing

- Bengtsson U, Nilsson-Balknas U, Hanson L A et al. Double blind, placebo controlled food reactions do not correlate to IgE allergy in the diagnosis of staple food related gastrointestinal symptoms. *Gut* 1996;39(1):130-135. Not about consequences of testing
- Benini L, Caliarì S, Bonfante F et al. Fecal fat concentration in the screening of steatorrhea. *Digestion* 1992;53(1-2):94-100. Not about consequences of testing
- Berg N O, Borulf S, Jakobsson I et al. How to approach the child suspected of malabsorption. Experience from a prospective investigation of suspected malabsorption in children 1968-1976 in Malmo. *Acta Paediatr Scand* 1978;67(4):403-411. Not about consequences of testing
- Berger R, Schmidt G. Evaluation of six anti-gliadin antibody assays. *J Immunol Methods* 1996;191(1):77-86. Not about consequences of testing
- Berrill W T, Eade O E, Fitzpatrick P F. Bird Fancier's lung and jejunal villous atrophy. *Lancet* 1975;2(7943):1006-1008. Not about consequences of testing
- Bertele R M, Burgin-Wolff A, Berger R et al. The fluorescent immunosorbent test for IgG gliadin antibodies and the leucocyte migration inhibition test in coeliac disease; comparison of diagnostic value. *Eur J Pediatr* 1985;144(1):58-62. Not about consequences of testing
- Berti I, Trevisiol C, Tommasini A et al. Usefulness of screening program for celiac disease in autoimmune thyroiditis. *Dig Dis Sci* 2000;45(2):403-406. Not about consequences of testing
- Beutner E H, Kumar V, Chorzelski Craig T P R M et al. Screening for celiac disease. *New Engl J Med* 1989;320(16):1087-1089. Not about consequences of testing
- Bhatnagar S, Bhan M K. Serological diagnosis of celiac disease. *Indian J Pediatr* 1999;66(1 Suppl):S26-S31. Not about consequences of testing
- Biagi F, Corazza G R. Defining gluten refractory enteropathy. *Eur J Gastroenterol Hepatol* 2001;13(5):561-565. Not about consequences of testing
- Biagi F, Corazza G R. Tissue transglutaminase antibodies: is sensitivity more important than specificity?. *Digestive and Liver Disease - Official Journal of the Italian Society of Gastroenterology and the Italian Association for the Study of the Liver* 2001;33(5):401-402. Not about consequences of testing
- Biagi F, Ellis H J, Parnell N D et al. A non-toxic analogue of a coeliac-activating gliadin peptide: a basis for immunomodulation?. *Aliment Pharmacol Ther* 1999;13(7):945-950. Not about consequences of testing
- Biagi F, Ellis H J, Yiannakou J Y et al. Tissue transglutaminase antibodies in celiac disease. *Am J Gastroenterol* 1999;94(8):2187-2192. Not about consequences of testing
- Biagi F, Parnell N D, Ellis H J et al. Endomysial antibody production is not related to histological damage after in vitro gluten challenge. *Eur J Gastroenterol Hepatol* 2000;12(1):57-60. Not about consequences of testing
- Biagi F, Pezzimenti D, Campanella J et al. Endomysial and tissue transglutaminase antibodies in coeliac sera: a comparison not influenced by previous serological testing. *Scand J Gastroenterol* 2001;36(9):955-958. Not about consequences of testing
- Bilbao J R, Vitoria Juan C, Ortiz Lourdes et al. Immunoglobulin G autoantibodies against tissue-transglutaminase. A sensitive, cost-effective assay for the screening of celiac disease. *Autoimmunity* 2002;35(4):255-259. Not about consequences of testing
- Binder H J. Celiac sprue--"unmasking" after vagotomy and hiatal-hernia repair. *N Engl J Med* 1970;283(10):520-521. Not about consequences of testing
- Bischoff S C, Mayer J, Wedemeyer J et al. Colonoscopic allergen provocation (COLAP): a new diagnostic approach for gastrointestinal food allergy. *Gut* 1997;40(6):745-753. Not about consequences of testing
- Bittinger M, Barnert J, Schmidbauer W et al. D-xylose hydrogen-breath test as a noninvasive screening test for Coeliac disease. What is the optimum xylose dose?. *Rom J Gastroenterol* 1997;6(4):235-238. Not about consequences of testing
- Bjarnason I, MacPherson A, Hollander D. Intestinal permeability: an overview. *Gastroenterology* 1995;108(5):1566-1581. Not about consequences of testing
- Bjarnason I, Peters T J, Veall N. A persistent defect in intestinal permeability in coeliac disease demonstrated by a <sup>51</sup>Cr-labelled EDTA absorption test. *Lancet* 1983;1(8320):323-325. Not about consequences of testing
- Blackwell P J, Hill P G, Holmes G K T. Autoantibodies to human tissue transglutaminase: superior predictors of coeliac disease. *Scand J*

- Gastroenterol 2002;37(11):1282-1285. Not about consequences of testing
- Bodanszky H, Horvath K, Bata A et al. Hydrogen breath test in small intestinal malabsorption. Acta Paediatr Hung 1987;28(1):45-49. Not about consequences of testing
- Bodanszky H, Horvath K, Horn G. The D-xylose test in coeliac disease. Acta Paediatr Hung 1983;24(1):17-22. Not about consequences of testing
- Bode S, Gudmand-Hoyer E. Evaluation of the gliadin antibody test for diagnosing coeliac disease. Scand J Gastroenterol 1994;29(2):148-152. Not about consequences of testing
- Bode S, Gudmand-Hoyer E. Symptoms and haematologic features in consecutive adult coeliac patients. Scand J Gastroenterol 1996;31(1):54-60. Not about consequences of testing
- Bode S, Weile B, Krasilnikoff P A et al. The diagnostic value of the gliadin antibody test in coeliac disease in children: a prospective study. J Pediatr Gastroenterol Nutr 1993;17(3):260-264. Not about consequences of testing
- Boldrini R, Biselli R, Bosman C. Chylomicron retention disease--the role of ultrastructural examination in differential diagnosis. Pathol Res Pract 2001;197(11):753-757. Not about consequences of testing
- Bonamico M, Ballati G, Mariani P et al. Screening for coeliac disease: the meaning of low titers of anti-gliadin antibodies (AGA) in non-coeliac children. Eur J Epidemiol 1997;13(1):55-59. Not about consequences of testing
- Bonamico M, Bottaro G, Pasquino A M et al. Coeliac disease and turner syndrome. J Pediatr Gastroenterol Nutr 1998;26(5):496-499. Not about consequences of testing
- Bonamico M, Mariani P, Danesi H M et al. Prevalence and clinical picture of coeliac disease in italian down syndrome patients: a multicenter study. J Pediatr Gastroenterol Nutr 2001;33(2):139-143. Not about consequences of testing
- Bonamico M, Mariani P, Mazzilli M C et al. Frequency and clinical pattern of coeliac disease among siblings of coeliac children. J Pediatr Gastroenterol Nutr 1996;23(2):159-163. Not about consequences of testing
- Bonamico M, Morellini M, Mariani P et al. HLA antigens and anti-gliadin antibodies in coeliac disease. Dis Markers 1991;9(6):313-317. Not about consequences of testing
- Bonamico M, Rasore-Quartino A, Mariani P et al. Down syndrome and coeliac disease: Usefulness of anti-gliadin and antiendomysium antibodies. Acta Paediatr 1996;85(12):1503-1505. Not about consequences of testing
- Bonamico M, Scire G, Mariani P et al. Short stature as the primary manifestation of monosymptomatic coeliac disease. J Pediatr Gastroenterol Nutr 1992;14(1):12-16. Not about consequences of testing
- Bonamico M, Tiberti C, Picarelli A et al. Radioimmunoassay to detect antitransglutaminase autoantibodies is the most sensitive and specific screening method for coeliac disease. Am J Gastroenterol 2001;96(5):1536-1540. Not about consequences of testing
- Bonamico Margherita, Pasquino Anna M, Mariani Paolo et al. Prevalence and clinical picture of coeliac disease in Turner syndrome. J Clin Endocrinol Metab 2002;87(12):5495-5498. Not about consequences of testing
- Bontems P, Deprettere A, Cadranet S et al. The coeliac iceberg: a consensus in paediatrics. Acta Gastroenterol Belg 2000;63(2):157-162. Review article
- Book L, Hart A, Black J et al. Prevalence and clinical characteristics of coeliac disease in Down syndrome in a US study. Am J Med Genet 2001;98(1):70-74. Not about consequences of testing
- Book Linda, Zone John J, Neuhausen Susan L. Prevalence of coeliac disease among relatives of sib pairs with coeliac disease in U.S. families. Am J Gastroenterol 2003;98(2):377-381. Not about consequences of testing
- Book LS. Diagnosing coeliac disease in 2002: who, why, and how? Pediatrics 2002; 109(5):952-954. Not about consequences of testing
- Booth S N, King J P G, Leonard J C et al. The significance of elevation of serum carcinoembryonic antigen (CEA) levels in inflammatory diseases of the intestine. Scand J Gastroenterol 1974;9(7):651-656. Not about consequences of testing
- Bostick Roberd M, Sprafka J, Michael Virnig et al. Predictors of cancer prevention attitudes and participation in cancer screening examinations. Am J Prev Med 1994;23(6):816-826. Not about consequences of testing
- Bottaro G, Cataldo F, Rotolo N et al. The clinical pattern of subclinical/silent coeliac disease: an analysis on 1026 consecutive cases. Am J Gastroenterol 1999;94(3):691-696. Not about consequences of testing

- Bottaro G, Failla P, Rotolo N et al. Changes in coeliac disease behaviour over the years. *Acta Paediatr* 1993;82(6-7):566-568. Not about consequences of testing
- Boudraa G, Hachelaf W, Benbouabdellah M et al. Prevalence of coeliac disease in diabetic children and their first-degree relatives in west Algeria: screening with serological markers. *Acta Paediatr* 1996;412(Suppl):58-60. Not about consequences of testing
- Bradlow B A, Haggan J M. A comparison of the plasma viscosity and the erythrocyte sedimentation rate as screening tests. *S Afr Med J* 1979;55(11):415-420. Not about consequences of testing
- Bramble M G, Zucoloto S, Wright N A et al. Acute gluten challenge in treated adult coeliac disease: a morphometric and enzymatic study. *Gut* 1985;26(2):169-174. Not about consequences of testing
- Brett P M, Yiannakou J Y, Morris M A et al. A pedigree-based linkage study of coeliac disease: failure to replicate previous positive findings. *Ann Hum Genet* 1998;62(Pt 1):25-32. Not about consequences of testing
- Brett P M, Yiannakou J Y, Morris M A et al. Common HLA alleles, rather than rare mutants, confer susceptibility to coeliac disease. *Ann Hum Genet* 1999;63(Pt 3):217-225. Not about consequences of testing
- Brocchi E, Tomassetti P, Misitano B et al. Endoscopic markers in adult coeliac disease. *Digestive and Liver Disease - Official Journal of the Italian Society of Gastroenterology and the Italian Association for the Study of the Liver* 2002;34(3):177-182. Not about consequences of testing
- Brooklyn Trevor N, Di Mambro, Alexandra J et al. Patients over 45 years with iron deficiency require investigation. *Eur J Gastroenterol Hepatol* 2003;15(5):535-538. Not about consequences of testing
- Brusco G, Di Stefano M, Corazza G R. Increased red cell distribution width and coeliac disease. *Digestive and Liver Disease - Official Journal of the Italian Society of Gastroenterology and the Italian Association for the Study of the Liver* 2000;32(2):128-130. Not about consequences of testing
- Brusco G, Izzi L, Corazza G R. Tissue transglutaminase antibodies for coeliac disease screening. *Ital J Gastroenterol Hepatol* 1998;30(5):496-497. Not about consequences of testing
- Bulpitt C J, Benos A S, Nicholl C G et al. Should medical screening of the elderly population be promoted?. *Gerontology* 1990;36(4):230-245. Not about consequences of testing
- Bundek Nancy I, Marks Gary, Richardson Jean L. Role of health locus of control beliefs in cancer screening of elderly Hispanic women. *Health Psychol* 1993;12(3):193-199. Not about consequences of testing
- Burgin-Wolff A, Berger R, Gaze H et al. IgG, IgA and IgE gliadin antibody determinations as screening test for untreated coeliac disease in children, a multicentre study. *Eur J Pediatr* 1989;148(6):496-502. Not about consequences of testing
- Burgin-Wolff A, Bertele R M, Berger R et al. A reliable screening test for childhood celiac disease: fluorescent immunosorbent test for gliadin antibodies. A prospective multicenter study. *Eur J Pediatr* 1983;102(5):655-660. Not about consequences of testing
- Burgin-Wolff A, Dahlbom I, Hadziselimovic F et al. Antibodies against human tissue transglutaminase and endomysium in diagnosing and monitoring coeliac disease. *Scand J Gastroenterol* 2002;37(6):685-691. Not about consequences of testing
- Burgin-Wolff A, Hernandez R, Just M et al. Immunofluorescent antibodies against gliadin: a screening test for coeliac disease. *Helv Paediatr Acta* 1976;31(4-5):375-380. Not about consequences of testing
- Burks A W, James J M, Hiegel A et al. Atopic dermatitis and food hypersensitivity reactions. *Eur J Pediatr* 1998;132(1):132-136. Not about consequences of testing
- Bushara K O, Goebel S U, Shill H et al. Gluten sensitivity in sporadic and hereditary cerebellar ataxia. *Ann Neurol* 2001;49(4):540-543. Not about consequences of testing
- Buts J P, Morin C L, Roy C C et al. One-hour blood xylose test: a reliable index of small bowel function. *Eur J Pediatr* 1978;92(5):729-733. Not about consequences of testing
- Caffarelli C, Romanini E, Caruana P et al. Clinical food hypersensitivity: the relevance of duodenal immunoglobulin E-positive cells. *Pediatr Res* 1998;44(4):485-490. Not about consequences of testing
- Calabuig M, Torregosa R, Polo P et al. Serological markers and celiac disease: a new diagnostic approach?. *J Pediatr Gastroenterol Nutr* 1990;10(4):435-442. Not about consequences of testing

- Calero P, Ribes-Koninckx C, Albiach V et al. IgA antigliadin antibodies as a screening method for nonovert celiac disease in children with insulin-dependent diabetes mellitus. *J Pediatr Gastroenterol Nutr* 1996;23(1):29-33. Not about consequences of testing
- Calkhoven P G, Aalbers M, Koshte V L et al. Relationship between IgGin1 and IgGin4 antibodies to foods and the development of IgE antibodies to inhalant allergens. I. Establishment of a scoring system for the overall food responsiveness and its application to 213 unselected children. *Clin Exp Allergy* 1991;21(1):91-98. Not about consequences of testing
- Camarero C, Eiras P, Asensio A et al. Intraepithelial lymphocytes and coeliac disease: permanent changes in CD3-/CD7+ and T cell receptor gamma/delta subsets studied by flow cytometry. *Acta Paediatr* 2000;89(3):285-290. Not about consequences of testing
- Campbell C B, Roberts R K, Cowen A E. The changing clinical presentation of coeliac disease in adults. *Med J Aust* 1977;1(4):89-93. Not about consequences of testing
- Carlsson A K, Axelsson I E, Borulf S K et al. Prevalence of IgA-antiendomysium and IgA-antigliadin autoantibodies at diagnosis of insulin-dependent diabetes mellitus in Swedish children and adolescents. *Pediatrics* 1999;103(6 Pt 1):1248-1252. Not about consequences of testing
- Carlsson A K, Axelsson I E, Borulf S K et al. Serological screening for celiac disease in healthy 2.5-year-old children in Sweden. *Pediatrics* 2001;107(1):42-45. Not about consequences of testing
- Carlsson A, Axelsson I, Borulf S et al. Prevalence of IgA-antigliadin antibodies and IgA-antiendomysium antibodies related to celiac disease in children with Down syndrome. *Pediatrics* 1998;101(2):272-275. Not about consequences of testing
- Carnicer J, Farre C, Varea V et al. Prevalence of coeliac disease in Down Syndrome. *Eur J Gastroenterol Hepatol* 2001;13(3):263-267. Not about consequences of testing
- Carroccio A, Cavataio F, Iacono G et al. IgA antiendomysial antibodies on the umbilical cord in diagnosing celiac disease. Sensitivity, specificity, and comparative evaluation with the traditional kit. *Scand J Gastroenterol* 1996;31(8):759-763. Not about consequences of testing
- Carroccio A, Cустro N, Montalto G et al. Evidence of transient IgA anti-endomysial antibody positivity in a patient with Graves' disease. *Digestion* 1999;60(1):86-88. Not about consequences of testing
- Carroccio A, Fabiani E, Iannitto E et al. Tissue transglutaminase autoantibodies in patients with non-Hodgkin's lymphoma: Case reports. *Digestion* 2000;62(4):271-275. Not about consequences of testing
- Carroccio A, Giannitrapani L, Soresi M et al. Guinea pig transglutaminase immunolinked assay does not predict coeliac disease in patients with chronic liver disease. *Gut* 2001;49(4):506-511. Not about consequences of testing
- Carroccio A, Iacono G, D'Amico D et al. Production of anti-endomysial antibodies in cultured duodenal mucosa: usefulness in coeliac disease diagnosis. *Scand J Gastroenterol* 2002;37(1):32-38. Not about consequences of testing
- Carroccio A, Iacono G, Ippolito S et al. Usefulness of faecal elastase-1 assay in monitoring pancreatic function in childhood coeliac disease. *Ital J Gastroenterol Hepatol* 1998;30(5):500-504. Not about consequences of testing
- Carroccio A, Iacono G, Montalto G et al. Immunologic and absorptive tests in celiac disease: can they replace intestinal biopsies?. *Scand J Gastroenterol* 1993;28(8):673-676. Not about consequences of testing
- Carroccio A, Iannitto E, Cavataio F et al. Sideropenic anemia and celiac disease: one study, two points of view. *Dig Dis Sci* 1998;43(3):673-678. Not about consequences of testing
- Carroccio Antonio, Iannitto Emilio, Di Prima et al. Screening for celiac disease in non-Hodgkin's lymphoma patients: a serum anti-transglutaminase-based approach. *Dig Dis Sci* 2003;48(8):1530-1536. Not about consequences of testing
- Carroccio Antonio, Vitale Giustina, Di Prima et al. Comparison of anti-transglutaminase ELISAs and an anti-endomysial antibody assay in the diagnosis of celiac disease: a prospective study. *Clin Chem* 2002;48(9):1546-1550. Not about consequences of testing
- Carroll Jerome F X, McGinley John J. Managing MICA clients in a modified therapeutic community with enhanced staffing. *J Subst Abuse Treat* 1998;15(6):565-577. Not about consequences of testing
- Carswell F, Ferguson A. Food antibodies in serum--a screening test for coeliac disease. *Arch Dis Child* 1972;47(254):594-596. Not about consequences of testing

Casellas F, de Torres I, Malagelada J R. Improved screening for intestinal villous atrophy by D-xylose breath test. *Dig Dis Sci* 2000;45(1):18-22. Not about consequences of testing

Casellas F, Sardi J, de Torres I et al. Hydrogen breath test with D-xylose for celiac disease screening is as useful in the elderly as in other age groups. *Dig Dis Sci* 2001;46(10):2201-2205. Not about consequences of testing

Castellano Penny Z, Wenger Nanette K, Graves William L. Adherence to screening guidelines for breast and cervical cancer in postmenopausal women with coronary heart disease: An ancillary study of volunteers for HERS. *Journal of Women's Health & Gender-Based Medicine* 2001;10(5):451-461. Not about consequences of testing

Castellino F, Scaglione N, Grosso S B et al. A novel method for detecting IgA endomysial antibodies by using human umbilical vein endothelial cells. *Eur J Gastroenterol Hepatol* 2000;12(1):45-49. Not about consequences of testing

Cataldo F, Lio D, Marino V et al. IgG(1) antiendomysium and IgG antitissue transglutaminase (anti-tTG) antibodies in coeliac patients with selective IgA deficiency. Working Groups on Celiac Disease of SIGEP and Club del Tenue. *Gut* 2000;47(3):366-369. Not about consequences of testing

Cataldo F, Marino V, Bottaro G et al. Celiac disease and selective immunoglobulin A deficiency. *Eur J Pediatr* 1997;131(2):306-308. Not about consequences of testing

Cataldo F, Marino V, Ventura A et al. Prevalence and clinical features of selective immunoglobulin A deficiency in coeliac disease: an Italian multicentre study. Italian Society of Paediatric Gastroenterology and Hepatology (SIGEP) and "Club del Tenue" Working Groups on Coeliac Disease. *Gut* 1998;42(3):362-365. Not about consequences of testing

Cataldo F, Ventura A, Lazzari R et al. Antiendomysium antibodies and coeliac disease: solved and unsolved questions. An Italian multicentre study. *Acta Paediatr* 1995;84(10):1125-1131. Not about consequences of testing

Cataldo Francesco, Marino Vincenzo. Increased prevalence of autoimmune diseases in first-degree relatives of patients with celiac disease. *J Pediatr Gastroenterol Nutr* 2003;36(4):470-473. Not about consequences of testing

Catapani W R, da Silva A N, de Morais M B et al. Clinical usefulness of acid steatorrhea in pediatric

practice. *Arq Gastroenterol* 1999;36(2):105-108. Not about consequences of testing

Catassi C, Fabiani E, Gasparin M et al. Quantitative antigliadin antibody measurement in clinical practice: an Italian multicentre study. SIGEP Working Group on Quantitative AGA Standardization. *Ital J Gastroenterol Hepatol* 1999;31(5):366-370. Not about consequences of testing

Catassi C, Fabiani E, Ratsch I M et al. Celiac disease in the general population: should we treat asymptomatic cases?. *J Pediatr Gastroenterol Nutr* 1997;24(5):S10-S12. Not about consequences of testing

Catassi C, Fabiani E, Ratsch I M et al. Is the sugar intestinal permeability test a reliable investigation for coeliac disease screening?. *Gut* 1997;40(2):215-217. Not about consequences of testing

Catassi C, Fabiani E, Ratsch I M et al. The coeliac iceberg in Italy. A multicentre antigliadin antibodies screening for coeliac disease in school-age subjects. *Acta Paediatr* 1996;412(Suppl):29-35. Not about consequences of testing

Catassi C, Fabiani E. The spectrum of coeliac disease in children. *Bailliere's Clinical Gastroenterology* 1997;11(3):485-507. Not about consequences of testing

Catassi C, Fanciulli G, D'Appello A R et al. Antiendomysium versus antigliadin antibodies in screening the general population for coeliac disease. *Scand J Gastroenterol* 2000;35(7):732-736. Not about consequences of testing

Catassi C, Fornaroli F, Fasano A. Celiac disease: From basic immunology to bedside practice. *Clin Appl Immunol Rev* 2002;3(1-2):61-71. Not about consequences of testing

Catassi C, Ratsch I M, Fabiani E et al. Coeliac disease in the year 2000: exploring the iceberg. *Lancet* 1994;343(8891):200-203. Not about consequences of testing

Catassi C, Ratsch I M, Fabiani E et al. High prevalence of undiagnosed coeliac disease in 5280 Italian students screened by antigliadin antibodies. *Acta Paediatr* 1995;84(6):672-676. Not about consequences of testing

Catassi C, Rossini M, Ratsch I M et al. Dose dependent effects of protracted ingestion of small amounts of gliadin in coeliac disease children: a clinical and jejunal morphometric study. *Gut* 1993;34(11):1515-1519. Not about consequences of testing

- Catassi Carlo, Fabiani Elisabetta, Corrao Giovanni et al. Risk of non-Hodgkin lymphoma in celiac disease. *JAMA* 2002;287(11):1413-1419. Not about consequences of testing
- Catino M, Tumini S, Mezzetti A et al. Coeliac disease and diabetes mellitus in children: A non casual association. *Diabetes Nutr Metab Clin Exp* 1998;11(5):296-302. Not about consequences of testing
- Cellier C, Cuillerier E, Patey-Mariaud de et al. Push enteroscopy in celiac sprue and refractory sprue. *Gastrointest Endosc* 1999;50(5):613-617. Not about consequences of testing
- Cellier C, Delabesse E, Helmer C et al. Refractory sprue, coeliac disease, and enteropathy-associated T-cell lymphoma. French Coeliac Disease Study Group. *Lancet* 2000;356(9225):203-208. Not about consequences of testing
- Chadwick V S, Phillips S F, Hofmann A F. Measurements of intestinal permeability using low molecular weight polyethylene glycols (PEG 400). II. Application to normal and abnormal permeability states in man and animals. *Gastroenterology* 1977;73(2):247-251. Not about consequences of testing
- Challacombe D N. Screening tests for coeliac disease. *Arch Dis Child* 1995;73(1):3-4. Not about consequences of testing
- Challacombe D. When is a coeliac?. *Lancet* 1994;343(8891):188. Not about consequences of testing
- Chambers Ruth. The effectiveness of lifestyle-related health screening: A 2 year follow-up study of doctors and teachers. *Fam Pract* 1992;9(4):500-505. Not about consequences of testing
- Chan A W, Butzner J D, McKenna R et al. Tissue transglutaminase enzyme-linked immunosorbent assay as a screening test for celiac disease in pediatric patients. *Pediatrics* 2001;107(1):E8. Not about consequences of testing
- Chan K N, Phillips A D, Mirakian R et al. Endomysial antibody screening in children. *J Pediatr Gastroenterol Nutr* 1994;18(3):316-320. Not about consequences of testing
- Chapman B A, Pattinson N R, Cook H B et al. Skin testing for coeliac disease. *N Z Med J* 1979;90(649):463-464. Not about consequences of testing
- Chartrand L J, Agulnik J, Vanounou T et al. Effectiveness of antigliadin antibodies as a screening test for celiac disease in children. *Cmaj - Canadian Medical Association Journal = Journal De L'association Medicale Canadienne* 1997;157(5):527-533. Not about consequences of testing
- Chartrand L J, Russo P A, Duhaime A G et al. Wheat starch intolerance in patients with celiac disease. *J Am Diet Assoc* 1997;97(6):612-618. Not about consequences of testing
- Chatzicostas Costantinos, Roussomoustakaki Maria, Drygiannakis Dimitrios et al. Primary biliary cirrhosis and autoimmune cholangitis are not associated with celiac disease in Crete. *Bmc Gastroenterology Electronic Resource* 2002;2(1):5. Not about consequences of testing
- Cheung Bruno M H, Jeng Kee-Ching G, Lau Yen. Screening for diseases in elderly persons: The correlation between physical checkup findings and chief complaints. *Gerontology* 1999;45(5):283-288. Not about consequences of testing
- Chimenti C, Pieroni M, Frustaci A. Celiac disease in idiopathic dilated cardiomyopathy. *Ital Heart J* 2001;2(9):658-659. Not about consequences of testing
- Chirido F G, Rumbo M, Carabajal P et al. Analysis of anti-gliadin antibodies by immunoblot analysis and enzyme-linked immunosorbent assay using gliadin fractions as antigens. *J Pediatr Gastroenterol Nutr* 1999;29(2):171-177. Not about consequences of testing
- Chirido F G, Rumbo M, Carabajal P et al. Determination of anti-omega-gliadin antibodies in serologic tests for coeliac disease. *Scand J Gastroenterol* 2000;35(5):508-516. Not about consequences of testing
- Ciacchi C, Cavallaro R, Romano R et al. Increased risk of surgery in undiagnosed celiac disease. *Dig Dis Sci* 2001;46(10):2206-2208. Not about consequences of testing
- Ciacchi C, Cirillo M, Cavallaro R et al. Long-term follow-up of celiac adults on gluten-free diet: prevalence and correlates of intestinal damage. *Digestion* 2002; 66(3):178-185. Not about consequences of testing
- Ciacchi C, Cirillo M, Giorgetti G et al. Low plasma cholesterol: a correlate of nondiagnosed celiac disease in adults with hypochromic anemia. *Am J Gastroenterol* 1999;94(7):1888-1891. Not about consequences of testing
- Ciacchi C, De Rosa A, De Michele G et al. Sexual behaviour in untreated and treated coeliac patients. *Eur J Gastroenterol Hepatol* 1998; 10(8):649-651. Not about consequences of testing
- Ciacchi C, Iavarone A, Siniscalchi M et al. Psychological dimensions of celiac disease: toward an

- integrated approach. *Dig Dis Sci* 2002;47(9):2082-2087. Not about consequences of testing
- Ciclitira P J, Ellis H J. In vivo gluten ingestion in coeliac disease. *Dig Dis* 1998;16(6):337-340. Not about consequences of testing
- Ciclitira Paul J. Recent advances in coeliac disease. *Clin Med* 2003;3(2):166-169. Not about consequences of testing
- Clasen Carla M, Vernon Sally W, Mullen Patricia D et al. A survey of physician beliefs and self-reported practices concerning screening for early detection of cancer. *Soc Sci Med* 1994;39(6):841-849. Not about consequences of testing
- Cleghorn G, Benjamin L, Corey M et al. Serum immunoreactive pancreatic lipase and cationic trypsinogen for the assessment of exocrine pancreatic function in older patients with cystic fibrosis. *Pediatrics* 1986;77(3):301-306. Not about consequences of testing
- Clemente Maria, Grazia Musu, Maria Paola et al. Antitissue transglutaminase antibodies outside celiac disease. *J Pediatr Gastroenterol Nutr* 2002;34(1):31-34. Not about consequences of testing
- Cobden I, Hamilton I, Rothwell J et al. Cellobiose/mannitol test: physiological properties of probe molecules and influence of extraneous factors. *Clin Chim Acta* 1985;148(1):53-62. Not about consequences of testing
- Cobden I, Rothwell J, Axon A T. Intestinal permeability and screening tests for coeliac disease. *Gut* 1980;21(6):512-518. Not about consequences of testing
- Cockburn Jill, Murphy Barbara, Schofield Penelope et al. Development of a strategy to encourage attendance for screening mammography. *Health Educ Res* 1991;6(3):279-290. Not about consequences of testing
- Cogulu O, Ozkinay F, Gunduz C et al. Celiac disease in children with down syndrome: Importance of follow-up and serologic screening. *Pediatr Int* 2003;45(4):395-399. Not about consequences of testing
- Colaco J, Egan-Mitchell B, Stevens F M et al. Compliance with gluten free diet in coeliac disease. *Arch Dis Child* 1987;62(7):706-708. Not about consequences of testing
- Collin P, Hallstrom O, Maki M et al. Atypical coeliac disease found with serologic screening. *Scand J Gastroenterol* 1990;25(3):245-250. Not about consequences of testing
- Collin P, Helin H, Maki M et al. Follow-up of patients positive in reticulín and gliadin antibody tests with normal small-bowel biopsy findings. *Scand J Gastroenterol* 1993;28(7):595-598. Not about consequences of testing
- Collin P, Kaukinen K, Maki M. Clinical features of celiac disease today. *Dig Dis* 1999;17(2):100-106. Not about consequences of testing
- Collin P, Korpela M, Hallstrom O et al. Rheumatic complaints as a presenting symptom in patients with coeliac disease. *Scand J Rheumatol* 1992;21(1):20-23. Not about consequences of testing
- Collin P, Maki M. Associated disorders in coeliac disease: clinical aspects. *Scand J Gastroenterol* 1994;29(9):769-775. Not about consequences of testing
- Collin P, Rasmussen M, Kyronpalo S et al. The hunt for coeliac disease in primary care. *QJM* 2002;95(2):75-77. Not about consequences of testing
- Collin P, Reunala T, Rasmussen M et al. High incidence and prevalence of adult coeliac disease. Augmented diagnostic approach. *Scand J Gastroenterol* 1997;32(11):1129-1133. Not about consequences of testing
- Collin P, Salmi J, Hallstrom O et al. Autoimmune thyroid disorders and coeliac disease. *Eur J Endocrinol* 1994;130(2):137-140. Not about consequences of testing
- Collin P, Salmi J, Hallstrom O et al. High frequency of coeliac disease in adult patients with type-I diabetes. *Scand J Gastroenterol* 1989;24(1):81-84. Not about consequences of testing
- Collin P, Vilks S, Heinonen P K et al. Infertility and coeliac disease. *Gut* 1996;39(3):382-384. Not about consequences of testing
- Collin P. New diagnostic findings in coeliac disease. *Ann Med* 1999;31(6):399-405. Not about consequences of testing
- Collin P. Serologic screening for coeliac disease--time for tissue transglutaminase test?. *Ital J Gastroenterol Hepatol* 1998;30(5):498-499. Not about consequences of testing
- Collin Pekka, Kaukinen Katri, Valimaki Matti et al. Endocrinological disorders and celiac disease. *Endocr Rev* 2002;23(4):464-483. Not about consequences of testing
- Collin Pekka, Reunala Timo. Recognition and management of the cutaneous manifestations of celiac disease: a guide for dermatologists. *Am J Clin*

- Dermatol 2003;4(1):13-20. Not about consequences of testing
- Collin Pekka, Syrjanen Jaana, Partanen Jukka et al. Celiac disease and HLA DQ in patients with IgA nephropathy. *Am J Gastroenterol* 2002;97(10):2572-2576. Not about consequences of testing
- Cook H B, Burt M J, Collett J A et al. Adult coeliac disease: prevalence and clinical significance. *Eur J Gastroenterol Hepatol* 2000;15(9):1032-1036. Not about consequences of testing
- Cooke W T, Asquith P. Coeliac disease. Introduction and definition. *Clin Gastroenterol* 1974;3(1):3-10. Not about consequences of testing
- Coombs R R, McLaughlan P. Allergenicity of food proteins and its possible modification. *Ann Allergy* 1984;53(6 Pt 2):592-596. Not about consequences of testing
- Coplan James. "The infant or young child with developmental delay": Erratum. *N Engl J Med* 1994;331(1):56. Not about consequences of testing
- Corazza G R, Andreani M L, Biagi F et al. The smaller size of the 'coeliac iceberg' in adults. *Scand J Gastroenterol* 1997;32(9):917-919. Not about consequences of testing
- Corazza G R, Andreani M L, Ventura N et al. Celiac disease and alopecia areata: Report of a new association. *Gastroenterology* 1995;109(4):1333-1337. Not about consequences of testing
- Corazza G R, Brusco G, Andreani M L et al. Previous misdiagnosis and diagnostic delay in adult celiac sprue. *J Clin Gastroenterol* 1996;22(4):324-325. Not about consequences of testing
- Corazza G R, Caletti G C, Lazzari R et al. Scalloped duodenal folds in childhood celiac disease. *Gastrointest Endosc* 1993;39(4):543-545. Not about consequences of testing
- Corazza G R, Di Sario A, Sacco G et al. Subclinical coeliac disease: an anthropometric assessment. *J Intern Med* 1994;236(2):183-187. Not about consequences of testing
- Corazza G R, Falasca A, Strocchi A et al. Decreased plasma postheparin diamine oxidase levels in celiac disease. *Dig Dis Sci* 1988;33(8):956-961. Not about consequences of testing
- Corazza G R, Gasbarrini G. Coeliac disease in adults. *Bailliere's Clinical Gastroenterology* 1995;9(2):329-350. Not about consequences of testing
- Corazza G R, Ginaldi L, Falasca A et al. Diamine oxidase plasma activities after treatment with heparin and jejunal morphometry in untreated coeliac disease. *Am J Clin Pathol* 1989;42(11):1136-1139. Not about consequences of testing
- Corazza G R, Valentini R A, Andreani M L et al. Subclinical coeliac disease is a frequent cause of iron-deficiency anaemia. *Scand J Gastroenterol* 1995;30(2):153-156. Not about consequences of testing
- Corazza G, Valentini R A, Frisoni M et al. Gliadin immune reactivity is associated with overt and latent enteropathy in relatives of celiac patients. *Gastroenterology* 1992;103(5):1517-1522. Not about consequences of testing
- Corlin R F, Nichaman M Z, Grier O T. The use of plasma and erythrocyte phospholipid linoleate levels as a screening test for malabsorption. *Am J Dig Dis* 1970;15(10):953-957. Not about consequences of testing
- Cornell H J, Maxwell R J. Amino acid composition of gliadin fractions which may be toxic to individuals with coeliac disease. *Clin Chim Acta* 1982;123(3):311-319. Not about consequences of testing
- Corrao G, Corazza G R, Andreani M L et al. Serological screening of coeliac disease: choosing the optimal procedure according to various prevalence values. *Gut* 1994;35(6):771-775. Not about consequences of testing
- Cox M A, Lewis K O, Cooper B T. Sucroseemia in untreated celiac disease: a potential screening test. *Dig Dis Sci* 1998;43(5):1096-1101. Not about consequences of testing
- Crawford L V, Herrod H G. Allergy diets for infants and children. *Curr Probl Pediatr* 1981;11(12):1-44. Not about consequences of testing
- Crenn Pascal, Vahedi Kouroche, Lavergne-Slove Anne et al. Plasma citrulline: A marker of enterocyte mass in villous atrophy-associated small bowel disease. *Gastroenterology* 2003;124(5):1210-1219. Not about consequences of testing
- Crone J, Rami B, Huber W D et al. Prevalence of Celiac Disease and Follow-up of Ema in Children and Adolescents With Type 1 Diabetes Mellitus. *J Pediatr Gastroenterol Nutr* 2003;37(1):67-71. Not about consequences of testing
- Cronin C C, Feighery A, Ferriss J B et al. High prevalence of celiac disease among patients with insulin-dependent (type I) diabetes mellitus. *Am J Gastroenterol* 1997;92(12):2210-2212. Not about consequences of testing

- Cronin C C, Jackson L M, Feighery C et al. Coeliac disease and epilepsy. *QJM* 1998;91(4):303-308. Not about consequences of testing
- Cronin C C, Shanahan F. Exploring the iceberg - The spectrum of celiac disease. *Am J Gastroenterol* 2003;98(3):518-520. Not about consequences of testing
- Cronin C C, Shanahan F. Why is celiac disease so common in Ireland?. *Perspect Biol Med* 2001;44(3):342-352. Not about consequences of testing
- Croyle Robert T, Sun Yi, Louie Douglas H. Psychological minimization of cholesterol test results: Moderators of appraisal in college students and community residents. *Health Psychol* 1993;12(6):503-507. Not about consequences of testing
- Csizmadia C G, Mearin M L, Oren A et al. Accuracy and cost-effectiveness of a new strategy to screen for celiac disease in children with Down syndrome. *Eur J Pediatr* 2000;137(6):756-761. Not about consequences of testing
- Cummins A G, Thompson F M, Butler R N et al. Improvement in intestinal permeability precedes morphometric recovery of the small intestine in coeliac disease. *Clin Sci (Lond)* 2001;100(4):379-386. Not about consequences of testing
- Cuoco L, Cammarota G, Tursi A et al. Disappearance of gastric mucosa-associated lymphoid tissue in coeliac patients after gluten withdrawal. *Scand J Gastroenterol* 1998; 33(4):401-405. Not about consequences of testing
- Cuoco L, Certo M, Jorizzo R A et al. Prevalence and early diagnosis of coeliac disease in autoimmune thyroid disorders. *Ital J Gastroenterol Hepatol* 1999;31(4):283-287. Not about consequences of testing
- Cuomo A, Romano M, Rocco A et al. Reflux oesophagitis in adult coeliac disease: beneficial effect of a gluten free diet. *Gut* 2003;52(4):514-517. Not about consequences of testing
- Dahele A, Ghosh S. Vitamin B12 deficiency in untreated celiac disease. *Am J Gastroenterol* 2001;96(3):745-750. Not about consequences of testing
- Dahlqvist A, Lindberg T, Meeuwisse G et al. Intestinal dipeptidases and disaccharidases in children with malabsorption. *Acta Paediatr Scand* 1970;59(6):621-630. Not about consequences of testing
- Dahlqvist G. Celiac disease and insulin-dependent diabetes mellitus no proof for a causal association. *Acta Paediatr* 1995;84(12):1337-1338. Not about consequences of testing
- Damoiseaux J G M C, Tervaert J W C. Celiac disease: the role of (auto)antibody detection in diagnosis and follow-up. *Neth J Med* 2002;60(7):303-304. Not about consequences of testing
- Danielsson L, Stenhammar L, Astrom E. Is gluten challenge necessary for the diagnosis of coeliac disease in young children?. *Scand J Gastroenterol* 1990;25(9):957-960. Not about consequences of testing
- David T J, Ajdukiewicz A B, Read A E. Fingerprint changes in coeliac disease. *Br Med J* 1970;4(735):594-596. Not about consequences of testing
- Davidson A G, Hassall E G. Screening for celiac disease. *Cmaj - Canadian Medical Association Journal = Journal De L'association Medicale Canadienne* 1997;157(5):547-548. Not about consequences of testing
- Davison S. Coeliac disease and liver dysfunction. *Arch Dis Child* 2002;87(4):293-296. Not about consequences of testing
- Day A S, Abbott G D. Simultaneous presentation of coeliac disease and ulcerative colitis in a child. *J Paediatr Child Health* 1999;35(2):204-206. Not about consequences of testing
- Day A S, Cook H B, Whitehead M et al. Anti-endomysial and anti-gliadin antibodies in screening for coeliac disease in children at greater risk of developing coeliac disease. *N Z Med J* 2000;113(1119):412-413. Not about consequences of testing
- de la, Concha E G, Fernandez-Arquero M et al. Celiac disease and TNF promoter polymorphisms. *Hum Immunol* 2000;61(5):513-517. Not about consequences of testing
- de Lecea A, Ribes-Koninckx C, Polanco I et al. Serological screening (anti gliadin and antiendomysium antibodies) for non-overt coeliac disease in children of short stature. *Acta Paediatr* 1996;412(Suppl):54-55. Not about consequences of testing
- De Vitis I, Ghirlanda G, Gasbarrini G. Prevalence of coeliac disease in type I diabetes: a multicentre study. *Acta Paediatr* 1996;412(Suppl):56-57. Not about consequences of testing
- de Vizia B, Poggi V, Conenna R et al. Iron absorption and iron deficiency in infants and children with gastrointestinal diseases. *J Pediatr Gastroenterol Nutr* 1992;14(1):21-26. Not about consequences of testing

- Dean G, Hanniffy L, Stevens F. Schizophrenia and coeliac disease. *Ir Med J* 1975;68(21):545-546. Not about consequences of testing
- Del Rosario M A, Fitzgerald J F, Chong S K et al. Further studies of anti-endomysium and anti-gliadin antibodies in patients with suspected celiac disease. *J Pediatr Gastroenterol Nutr* 1998;27(2):191-195. Not about consequences of testing
- Demir H, Yuce A, Kocak N et al. Celiac disease in Turkish children: presentation of 104 cases. *Pediatr Int* 2000;42(5):483-487. Not about consequences of testing
- Deutsch J C, Santhosh-Kumar C R, Kolli V R. A noninvasive stable-isotope method to simultaneously assess pancreatic exocrine function and small bowel absorption. *Am J Gastroenterol* 1995;90(12):2182-2185. Not about consequences of testing
- Devi Rampertab S, Fleischauer A, Neugut A I et al. Risk of duodenal adenoma in celiac disease. *Scand J Gastroenterol* 2003;38(8):831-833. Not about consequences of testing
- Devine P L, Birrell G W, Golder J P et al. Screening and monitoring coeliac disease: multicentre trial of a new serum antibody test kit. *Dis Markers* 1994;12(1):71-80. Not about consequences of testing
- Dezi R, Niveloni S, Sugai E et al. Gluten sensitivity in the rectal mucosa of first-degree relatives of celiac disease patients. *Am J Gastroenterol* 1997;92(8):1326-1330. Not about consequences of testing
- Dhar A, Goenka M K. Endomysial antibody and celiac disease. *Indian Journal of Gastroenterology - Official Journal of the Indian Society of Gastroenterology* 1993;12(4):157-158. Not about consequences of testing
- Di Cagno, Raffaella De, Angelis Maria et al. Proteolysis by sourdough lactic acid bacteria: effects on wheat flour protein fractions and gliadin peptides involved in human cereal intolerance. *Appl Environ Microbiol* 2002;68(2):623-633. Not about consequences of testing
- Di Leo M, Weisz G, Ansaldi Balocco N. Serum and salivary antiendomysium antibodies in the screening of coeliac disease. *Panminerva Med* 1999;41(1):68-71. Not about consequences of testing
- Dias J, Unsworth D J, Walker-Smith J A. Antigliadin and antireticulin antibodies in screening for coeliac disease. *Lancet* 1987;2(8551):157-158. Not about consequences of testing
- Dickey W, Hughes D F, McMillan S A. Reliance on serum endomysial antibody testing underestimates the true prevalence of coeliac disease by one fifth. *Scand J Gastroenterol* 2000;35(2):181-183. Not about consequences of testing
- Dickey W, Hughes D. Disappointing sensitivity of endoscopic markers for villous atrophy in a high-risk population: implications for celiac disease diagnosis during routine endoscopy. *Am J Gastroenterol* 2001;96(7):2126-2128. Not about consequences of testing
- Dickey W, Hughes D. Prevalence of celiac disease and its endoscopic markers among patients having routine upper gastrointestinal endoscopy. *Am J Gastroenterol* 1999;94(8):2182-2186. Not about consequences of testing
- Dickey W, McConnell J B. How many hospital visits does it take before celiac sprue is diagnosed?. *J Clin Gastroenterol* 1996;23(1):21-23. Not about consequences of testing
- Dickey W, McMillan S A, Bharucha C et al. Antigliadin antibodies in blood donors in Northern Ireland. *Eur J Gastroenterol Hepatol* 1992;4(9):739-741. Not about consequences of testing
- Dickey W, McMillan S A, Callender M E. High prevalence of celiac sprue among patients with primary biliary cirrhosis. *J Clin Gastroenterol* 1997;25(1):328-329. Not about consequences of testing
- Dickey W, McMillan S A, Hughes D F. Identification of coeliac disease in primary care. *Scand J Gastroenterol* 1998;33(5):491-493. Not about consequences of testing
- Dickey W, McMillan S A, Hughes D F. Sensitivity of serum tissue transglutaminase antibodies for endomysial antibody positive and negative coeliac disease. *Scand J Gastroenterol* 2001;36(5):511-514. Not about consequences of testing
- Dickey W, McMillan S A, McCrum E E et al. Association between serum levels of total IgA and IgA class endomysial and antigliadin antibodies: implications for coeliac disease screening. *Eur J Gastroenterol Hepatol* 1997;9(6):559-562. Not about consequences of testing
- Dickey W, Stewart F, Nelson J et al. Screening for coeliac disease as a possible maternal risk factor for neural tube defect. *Clin Genet* 1996;49(2):107-108. Not about consequences of testing
- Dieterich W, Ehnis T, Bauer M et al. Identification of tissue transglutaminase as the autoantigen of celiac disease. *Nat Med* 1997;3(7):797-801. Not about consequences of testing
- Dieterich W, Laag E, Bruckner-Tuderman L et al. Antibodies to tissue transglutaminase as serologic

- markers in patients with dermatitis herpetiformis. *J Invest Dermatol* 1999;113(1):133-136. Not about consequences of testing
- Dieterich W, Laag E, Schopper H et al. Autoantibodies to tissue transglutaminase as predictors of celiac disease. *Gastroenterology* 1998;115(6):1317-1321. Not about consequences of testing
- Digilio M C, Giannotti A, Castro M et al. Screening for Celiac Disease in Patients With Deletion 22q11.2 (Digeorge/Velo-Cardio-Facial Syndrome). *Am J Med Genet* 2003;121A(3):286-288. Not about consequences of testing
- Dinari G, Rosenbach Y, Zahavi I et al. Random fecal alpha 1-antitrypsin excretion in children with intestinal disorders. *Am J Dis Child* 1984;138(10):971-973. Not about consequences of testing
- Dinari G, Zahavi I, Marcus H et al. Placental ferritin in coeliac disease: relation to clinical stage, origin, and possible role in the pathogenesis of malignancy. *Gut* 1991;32(9):999-1003. Not about consequences of testing
- Dissanayake A S, Truelove S C, Whitehead R. Jejunal mucosal recovery in coeliac disease in relation to the degree of adherence to a gluten-free diet. *Q J Med* 1974;43(170):161-185. Not about consequences of testing
- Drossman D A. Irritable bowel syndrome: how far do you go in the workup?. *Gastroenterology* 2001;121(6):1512-1515. Not about consequences of testing
- Duncan A, Park R P, Lee F D et al. A retrospective assessment of the clinical value of jejunal disaccharidase analysis. *Scand J Gastroenterol* 1994;29(12):1111-1116. Not about consequences of testing
- Eade O E, Lloyd R S, Lang C et al. IgA and IgG reticulin antibodies in coeliac and non-coeliac patients. *Gut* 1977;18(12):991-993. Not about consequences of testing
- Eigenmann P A, Calza A-M. Diagnosis of IgE-mediated food allergy among Swiss children with atopic dermatitis. *Pediatr Allergy Immunol* 2000;11(2):95-100. Not about consequences of testing
- Eigenmann P A, Sicherer S H, Borkowski T A et al. Prevalence of IgE-mediated food allergy among children with atopic dermatitis. *Pediatrics* 1998;101(3):E8 Not about consequences of testing
- Einarsson K, Bjorkhem I, Eklof R et al. 14C-triolein breath test as a rapid and convenient screening test for fat malabsorption. *Scand J Gastroenterol* 1983;18(1):9-12. Not about consequences of testing
- Elewaut A, Dacremont G, Robberecht E et al. IgA isotyping of antigliadin antibodies. A possible clue for a less invasive diagnosis of coeliac disease. *Clin Chim Acta* 1989;183(3):285-294. Not about consequences of testing
- Ensari A, Marsh M N, Morgan S et al. Diagnosing coeliac disease by rectal gluten challenge: a prospective study based on immunopathology, computerized image analysis and logistic regression analysis. *Clin Sci (Lond)* 2001;101(2):199-207. Not about consequences of testing
- Enzenauer R J, Root S. Arthropathy and celiac disease. *J Clin Rheumatol* 1998;4(4):205-208. Not about consequences of testing
- Erfurt John C, Foote Andrea, Heirich Max A. Worksite wellness programs: Incremental comparison of screening and referral alone, health education, follow-up counseling, and plant organization. *Am J Health Promot* 1991;5(6):438-448. Not about consequences of testing
- Exner G U, Sacher M, Shmerling D H et al. Growth retardation and bone mineral status in children with coeliac disease recognized after the age of 3 years. *Helv Paediatr Acta* 1978;33(6):497-507. Not about consequences of testing
- Fabiani E, Catassi C. The serum IgA class anti-tissue transglutaminase antibodies in the diagnosis and follow up of coeliac disease. Results of an international multi-centre study. International Working Group on Eu-tTG. *Eur J Gastroenterol Hepatol* 2001;13(6):659-665. Not about consequences of testing
- Farre C, Esteve M, Curcoy A et al. Hypertransaminasemia in pediatric celiac disease patients and its prevalence as a diagnostic clue. *Am J Gastroenterol* 2002;97(12):3176-3181. Not about consequences of testing
- Farre C, Humbert P, Vilar P et al. Serological markers and HLA-DQ2 haplotype among first-degree relatives of celiac patients. Catalan Coeliac Disease Study Group. *Dig Dis Sci* 1999;44(11):2344-2349. Not about consequences of testing
- Farrell R J, Kelly C P. Diagnosis of celiac sprue. *Am J Gastroenterol* 2001;96(12):3237-3246. Not about consequences of testing
- Farrell Richard J, Kelly Ciaran P. Celiac sprue. *N Engl J Med* 2002;346(3):180-188. Not about consequences of testing

- Fasano A, Catassi C. Current approaches to diagnosis and treatment of celiac disease: an evolving spectrum. *Gastroenterology* 2001;120(3):636-651. Not about consequences of testing
- Fasano A. European and North American populations should be screened for coeliac disease. *Gut* 2003;52(2):168-169. Not about consequences of testing
- Fasano A. Where have all the American celiacs gone?. *Acta Paediatr* 1996;412(Suppl):20-24. Not about consequences of testing
- Fasano Alessio, Berti Irene, Gerarduzzi Tania et al. Prevalence of celiac disease in at-risk and not-at-risk groups in the United States: a large multicenter study. *Arch Intern Med* 2003;163(3):286-292. Not about consequences of testing
- Fasano Alessio. Celiac disease--how to handle a clinical chameleon. *N Engl J Med* 2003;348(25):2568-2570. Not about consequences of testing
- Feighery C, Weir D G, Whelan A et al. Diagnosis of gluten-sensitive enteropathy: is exclusive reliance on histology appropriate?. *Eur J Gastroenterol Hepatol* 1998;10(11):919-925. Not about consequences of testing
- Feighery C. Coeliac disease. *Br Med J* 1999;319(7204):236-239. Not about consequences of testing
- Ferfoglia G, Pulitano R, Sategna-Guidetti C. Do dietary antibodies still play a role in the diagnosis and follow-up of coeliac disease? A comparison among different serological tests. *Panminerva Med* 1995;37(2):55-59. Not about consequences of testing
- Ferguson A, Denton-Miller P, Lai C L. Coeliac disease--objectives of life-long follow-up. *Health Bull (Edinb)* 1977;35(2):78-80. Not about consequences of testing
- Fernandez-Calle P, Codoceo R, Polanco I et al. Is an intestinal permeability test a valid marker for slight dietary transgressions in adolescents with coeliac disease?. *Gut* 1993;34(6):774-777. Not about consequences of testing
- Fernhall Bo, Tymeson Garth, Millar Lynn et al. Cardiovascular fitness testing and fitness levels of adolescents and adults with mental retardation including Down syndrome. *Education & Training in Mental Retardation* 1989;24(2):133-138. Not about consequences of testing
- Ferreira M, Davies S L, Butler M et al. Endomysial antibody: is it the best screening test for coeliac disease?. *Gut* 1992;33(12):1633-1637. Not about consequences of testing
- Fiasse R. Screening for gastrointestinal diseases - Therapeutic impact. *Acta Gastro-Enterol Belg* 1995; 58(5-6):343-347. Unable to obtain article
- Fielding Jonathan E. Frequency of health risk assessment activities at U.S. worksites. *Am J Prev Med* 1989;5(2):73-81. Not about consequences of testing
- Fine K D, Lee E L, Meyer R L. Colonic histopathology in untreated celiac sprue or refractory sprue: is it lymphocytic colitis or colonic lymphocytosis?. *Hum Pathol* 1998;29(12):1433-1440. Not about consequences of testing
- Fine K D, Ogunji F, George J et al. Utility of a rapid fecal latex agglutination test detecting the neutrophil protein, lactoferrin, for diagnosing inflammatory causes of chronic diarrhea. *Am J Gastroenterol* 1998;93(8):1300-1305. Not about consequences of testing
- Fine K D, Ogunji F, Saloum Y et al. Celiac sprue: another autoimmune syndrome associated with hepatitis C. *Am J Gastroenterol* 2001;96(1):138-145. Not about consequences of testing
- Fink Raymond, Shapiro Sam. Significance of increased efforts to gain participation in screening for breast cancer. *Am J Prev Med* 1990;6(1):34-41. Not about consequences of testing
- First Lewis R, Palfrey Judith S. The infant or young child with developmental delay. *N Engl J Med* 1994;330(7):478-483. Not about consequences of testing
- Fisher S E, Markowitz J, Lifshitz F. Food intolerance in childhood. *Compr Ther* 1984;10(5):5-11. Not about consequences of testing
- Fitzpatrick K P, Sherman P M, Ipp M et al. Screening for celiac disease in children with recurrent abdominal pain. *J Pediatr Gastroenterol Nutr* 2001;33(3):250-252. Not about consequences of testing
- Flanders G, Graves P, Rewers M. Prevention of type 1 diabetes from laboratory to public health. *Autoimmunity* 1999;29(3):235-246. Not about consequences of testing
- Floreani A, Betterle C, Baragiotta A et al. Prevalence of coeliac disease in primary biliary cirrhosis and of antimicrobial antibodies in adult coeliac disease patients in Italy. *Digestive and Liver Disease - Official Journal of the Italian Society of Gastroenterology and the Italian Association for the Study of the Liver* 2002;34(4):258-261. Not about consequences of testing

- Foldes-Papp Zeno, Demel Ulrike, Berry Desiree et al. Tissue transglutaminase antibody determination in celiac disease. Analysis of diagnostic specificity of anti-human IgA-type assays. *J Immunoassay Immunochem* 2002;23(2):211-227. Not about consequences of testing
- Foster P N, Will E J, Kelleher J et al. Oxalate-loading tests to screen for steatorrhea: an appraisal. *Clin Chim Acta* 1984;144(2-3):155-161. Not about consequences of testing
- Fotherby K J, Wraight E P, Neale G. 51Cr-EDTA/14C-mannitol intestinal permeability test. Clinical use in screening for coeliac disease. *Scand J Gastroenterol* 1988;23(2):171-177. Not about consequences of testing
- Fotoulaki M, Nousia-Arvanitakis S, Augoustidou-Savvopoulou P et al. Clinical application of immunological markers as monitoring tests in celiac disease. *Dig Dis Sci* 1999;44(10):2133-2138. Not about consequences of testing
- Fox Sarah A, Klos Dennis S, Tsou Carole V et al. Breast cancer screening recommendations: Current status of women's knowledge. *Fam Community Health* 1987;10(3):39-50. Not about consequences of testing
- Fox Sarah A, Stein Judith A. The effect of physician^patient communication on mammography utilization by different ethnic groups. *Med Care* 1991;29(11):1065-1082. Not about consequences of testing
- Francis James, Carty John E, Scott Brian B. The prevalence of coeliac disease in rheumatoid arthritis. *Eur J Gastroenterol Hepatol* 2002;14(12):1355-1356. Not about consequences of testing
- Francis Rupert A, Ernst Frederick A, Nevels Harold et al. The relationship of blood pressure to a brief measure of anger during routine health screening. *J Natl Med Assoc* 1991;83(7):601-604. Not about consequences of testing
- Franklin R H. Post-vagotomy diarrhoea?. *Br Med J* 1970;1(693):412. Not about consequences of testing
- Franks Peter, Clancy Carolyn M. Physician gender bias in clinical decisionmaking: Screening for cancer in primary care. *Med Care* 1993;31(3):213-218. Not about consequences of testing
- Fraser-Reynolds K A, Butzner J D, Stephure D K et al. Use of immunoglobulin A-antiendomysial antibody to screen for celiac disease in North American children with type 1 diabetes. *Diabetes Care* 1998;21(11):1985-1989. Not about consequences of testing
- Fredriksson Hans. Screening of mental disturbances in occupational health services in Finland. *Psychiatria Fennica* 1987;18133-143. Not about consequences of testing
- Freeman H J. Failure of added dietary gluten to induce small intestinal histopathological changes in patients with watery diarrhea and lymphocytic colitis. *Can J Gastroenterol* 1996;10(7):436-439. Not about consequences of testing
- Freeman H J. Small intestinal mucosal biopsy for investigation of diarrhea and malabsorption in adults. *Gastrointest Endosc Clin N Am* 2000;10(4):739-53, Vii. Not about consequences of testing
- Freeman H J. Solid-phase ELISA for tissue transglutaminase, an endomysial target for possible serological diagnosis of celiac disease. *Can J Gastroenterol* 1998;12(5):323-324. Not about consequences of testing
- Freeman H J. Survey of gastroenterologists on the diagnosis and treatment of adult patients with celiac disease in British Columbia. *Can J Gastroenterol* 1998;12(2):149-152. Not about consequences of testing
- Freeman Hugh, Lemoyne Michel, Pare Pierre. Coeliac disease. *Baillieres Best Pract Res Clin Gastroenterol* 2002;16(1):37-49. Not about consequences of testing
- Freemark M, Levitsky LL. Screening for celiac disease in children with type 1 diabetes: Two views of the controversy. *Diabetes Care* 2003; 26(6):1932-1939. Not about consequences of testing
- Freier S. Paediatric gastrointestinal allergy. *Clin Allergy* 1973;3(Suppl):597-618. Not about consequences of testing
- Fried Terri R, Rosenberg Roberta R, Lipsitz Lewis A. Older community-dwelling adults' attitudes toward and practices of health promotion and advance planning activities. *J Am Geriatr Soc* 1995;43(6):645-649. Not about consequences of testing
- Friedman Lawrence S, Johnson Brenda, Brett Allan S. Evaluation of substance-abusing adolescents by primary care physicians. *J Adolesc Health Care* 1990;11(3):227-230. Not about consequences of testing
- Friedman Lois C, Woodruff Amy, Lane Montague et al. Breast cancer screening behaviors and intentions among asymptomatic women 50 years of age and older. *Am J Prev Med* 1995;11(4):218-223. Not about consequences of testing
- Friis S U, Gudmand-Hoyer E. Screening for coeliac disease in adults by simultaneous determination of IgA and IgG gliadin antibodies. *Scand J Gastroenterol*

- 1986;21(9):1058-1062. Not about consequences of testing
- Frisoni G B, Carabellese N, Longhi M et al. Is celiac disease associated with Alzheimer's disease?. *Acta Neurol Scand* 1997;95(3):147-151. Not about consequences of testing
- Fromm H, Hofmann A F. Breath test for altered bile-acid metabolism. *Lancet* 1971;2(7725):621-625. Not about consequences of testing
- Frustaci Andrea, Cuoco Lucio, Chimenti Cristina et al. Celiac disease associated with autoimmune myocarditis. *Circulation* 2002;105(22):2611-2618. Not about consequences of testing
- Fry L. Dermatitis herpetiformis. *Bailliere's Clinical Gastroenterology* 1995;9(2):371-393. Not about consequences of testing
- Fry L. The gut and dermatitis herpetiformis. *Br Med J* 1971;4(780):172 Not about consequences of testing
- Fung V S, Duggins A, Morris J G et al. Progressive myoclonic ataxia associated with celiac disease presenting as unilateral cortical tremor and dystonia. *Mov Disord* 2000;15(4):732-734. Not about consequences of testing
- Gale J, Simmonds P D, Mead G M et al. Enteropathy-type intestinal T-cell lymphoma: clinical features and treatment of 31 patients in a single center. *Journal of Clinical Oncology - Official Journal of the American Society of Clinical Oncology* 2000;18(4):795-803. Not about consequences of testing
- Gandolfi L, Catassi C, Garcia S et al. Antiendomysial antibody test reliability in children with frequent diarrhea and malnutrition: is it celiac disease?. *J Pediatr Gastroenterol Nutr* 2001;33(4):483-487. Not about consequences of testing
- Gandolfi L, Pratesi R, Cordoba J C et al. Prevalence of celiac disease among blood donors in Brazil. *Am J Gastroenterol* 2000;95(3):689-692. Not about consequences of testing
- Gardiner A, Porteous N, Walker-Smith JA. The effect of coeliac disease on the mother-child relationship. *Aust Paediatr J* 1972; 8(1):39-43. Unable to obtain article
- Garioch J J, Lewis H M, Sargent S A et al. 25 years' experience of a gluten-free diet in the treatment of dermatitis herpetiformis. *Br J Dermatol* 1994;131(4):541-545. Not about consequences of testing
- Garn S M, Poznanski A K, Nagy J M. Bone measurement in the differential diagnosis of osteopenia and osteoporosis. *Radiology* 1971;100(3):509-518. Not about consequences of testing
- Garrote J A, Sorell L, Alfonso P et al. A novel visual immunoassay for coeliac disease screening. *Eur J Clin Invest* 1999;29(8):697-699. Not about consequences of testing
- Gasbarrini Antonio, Ojetti Veronica, Cuoco Lucio et al. Lack of endoscopic visualization of intestinal villi with the "immersion technique" in overt atrophic celiac disease. *Gastrointest Endosc* 2003;57(3):348-351. Not about consequences of testing
- Gaston Marilyn, Hughes Moody, Lanardo E. Improving utilization of breast and cervical cancer screening in your office practice. *J Natl Med Assoc* 1995;87(9):700-704. Not about consequences of testing
- Gath D H, Hallam N, Mynors-Wallis L et al. Emotional reactions in women attending a UK colposcopy clinic. *J Epidemiol Community Health* 1995;49(1):79-83. Not about consequences of testing
- Gawkrodger D J, Vestey J P, O'Mahony S et al. Dermatitis herpetiformis and established coeliac disease. *Br J Dermatol* 1993;129(6):694-695. Not about consequences of testing
- George E K, Hertzberger-ten Cate R, Suijlekom-Smit L W et al. Juvenile chronic arthritis and coeliac disease in The Netherlands. *Clin Exp Rheumatol* 1996;14(5):571-575. Not about consequences of testing
- George E K, Mearin M L, Bouquet J et al. High frequency of celiac disease in Down syndrome. *Eur J Pediatr* 1996;128(4):555-557. Not about consequences of testing
- George E K, Mearin M L, Bouquet J et al. Screening for coeliac disease in Dutch children with associated diseases. *Acta Paediatr* 1996;412(Suppl):52-53. Not about consequences of testing
- George Sharon A. Barriers to breast cancer screening: An integrative review. *Health Care Women Int* 2000;21(1):53-65. Not about consequences of testing
- Gerrard J W, Lubos M C. The malabsorption syndromes. *Pediatr Clin North Am* 1967;14(1):73-91. Not about consequences of testing
- Gersch Irvine, Kelly Catherine, Cohen Sara et al. The Chingford Hall School Screening Project: Can we have some more educational psychologist time please?. *Educational Psychology in Practice* 2001;17(2):135-156. Not about consequences of testing

- Ghosh S K, Littlewood J M, Goddard D et al. Stool microscopy in screening for steatorrhoea. *Am J Clin Pathol* 1977;30(8):749-753. Not about consequences of testing
- Giannotti A, Tiberio G, Castro M et al. Coeliac disease in Williams syndrome. *J Med Genet* 2001;38(11):767-768. Not about consequences of testing
- Gilchrist C N, Espinar E A, Cook H B. Familial short stature and coeliac disease: A family case report. *N Z Med J* 1983;96(736):563-565. Not about consequences of testing
- Gillett P M, Gillett H R, Israel D M et al. Increased prevalence of coeliac disease in girls with Turner syndrome detected using antibodies to endomysium and tissue transglutaminase. *Can J Gastroenterol* 2000;14(11):915-918. Not about consequences of testing
- Gillberg R, Ahren C. Coeliac disease diagnosed by means of duodenoscopy and endoscopic duodenal biopsy. *Scand J Gastroenterol* 1977;12(8):911-916. Not about consequences of testing
- Gillett H R, Cauch-Dudek K, Jenny E et al. Prevalence of IgA antibodies to endomysium and tissue transglutaminase in primary biliary cirrhosis. *Can J Gastroenterol* 2000;14(8):672-675. Not about consequences of testing
- Gillett H R, Freeman H J. Comparison of IgA endomysium antibody and IgA tissue transglutaminase antibody in coeliac disease. *Can J Gastroenterol* 2000;14(8):668-671. Not about consequences of testing
- Gillett H R, Freeman H J. Serological testing in screening for adult coeliac disease. *Can J Gastroenterol* 1999;13(3):265-269. Not about consequences of testing
- Gillett P M, Gillett H R, Israel D M et al. High prevalence of coeliac disease in patients with type 1 diabetes detected by antibodies to endomysium and tissue transglutaminase. *Can J Gastroenterol* 2001;15(5):297-301. Not about consequences of testing
- Gillett P M, Gillett H R, Israel D M et al. Increased prevalence of coeliac disease in girls with Turner syndrome detected using antibodies to endomysium and tissue transglutaminase. *Can J Gastroenterol* 2000;14(11):915-918. Not about consequences of testing
- Gillett P M, Israel D M. Tissue transglutaminase: does the key fit the coeliac lock?. *J Pediatr Gastroenterol Nutr* 2000;30(2):222-223. Not about consequences of testing
- Gomez J C, Selvaggio G S, Viola M et al. Prevalence of coeliac disease in Argentina: screening of an adult population in the La Plata area. *Am J Gastroenterol* 2001;96(9):2700-2704. Not about consequences of testing
- Gomez Juan C, Selvaggio Gisella, Pizarro Bibiana et al. Value of a screening algorithm for coeliac disease using tissue transglutaminase antibodies as first level in a population-based study. *Am J Gastroenterol* 2002;97(11):2785-2790. Not about consequences of testing
- Gonczi J, Skerritt J H, Mitchell J D. A reliable screening test for coeliac disease: enzyme-linked immunosorbent assay to detect anti-gliadin antibodies in serum. *Aust N Z J Med* 1991;21(5):723-731. Not about consequences of testing
- Gonczi J, Skerritt J H, Mitchell J D. Differentiation of coeliac disease and other malabsorption diseases using specific serum antigliadin IgG subclass profiles and IgA1 levels. *Int Arch Allergy Immunol* 1992;98(4):377-385. Not about consequences of testing
- Gonzalez D, Sugai E, Gomez J C et al. Is it necessary to screen for coeliac disease in postmenopausal osteoporotic women?. *Calcif Tissue Int* 2002;71(2):141-144. Not about consequences of testing
- Gordon N. Cerebellar ataxia and gluten sensitivity: a rare but possible cause of ataxia, even in childhood. *Dev Med Child Neurol* 2000;42(4):283-286. Not about consequences of testing
- Gould S R, Chinn G L, Nobbs B T et al. Evaluation of a tubeless pancreatic function test in patients with steatorrhoea in a district general hospital. *J R Soc Med* 1988;81(5):270-273. Not about consequences of testing
- Gracey M. Another screening test for coeliac disease?. *Aust Paediatr J* 1974;10(6):367-370. Not about consequences of testing
- Granot E, Korman S M, Sallon S et al. "Early" vs. "late" diagnosis of coeliac disease in two ethnic groups living in the same geographic area. *Isr J Med Sci* 1994;30(4):271-275. Not about consequences of testing
- Greco L, Babron M C, Corazza G R et al. Existence of a genetic risk factor on chromosome 5q in Italian coeliac disease families. *Ann Hum Genet* 2001;65(Pt 1):35-41. Not about consequences of testing
- Greco L, Corazza G, Babron M C et al. Genome search in coeliac disease. *Am J Hum Genet*

- 1998;62(3):669-675. Not about consequences of testing
- Greco L, D'Adamo G, Truscelli A et al. Intestinal permeability after single dose gluten challenge in coeliac disease. *Arch Dis Child* 1991;66(7):870-872. Not about consequences of testing
- Greco L, Percopo S, Clot F et al. Lack of correlation between genotype and phenotype in celiac disease. *J Pediatr Gastroenterol Nutr* 1998;26(3):286-290. Not about consequences of testing
- Greco L, Percopo S. The coeliac disease task force "Free from Gluten," "Improved knowledge to cure coeliac disease". *Acta Paediatr* 1996;412(Suppl):25-28. Not about consequences of testing
- Greco L, Romino R, Coto I et al. The first large population based twin study of coeliac disease. *Gut* 2002;50(5):624-628. Not about consequences of testing
- Greco L, Troncone R, de Vizia B et al. Discriminant analysis for the diagnosis of childhood celiac disease. *J Pediatr Gastroenterol Nutr* 1987;6(4):538-542. Not about consequences of testing
- Greco L, Troncone R. Coeliac families. *Acta Paediatr* 2002;91(1):16-17. Not about consequences of testing
- Green P H, Shane E, Rotterdam H et al. Significance of unsuspected celiac disease detected at endoscopy. *Gastrointest Endosc* 2000;51(1):60-65. Not about consequences of testing
- Green PHR, Stavropoulos SN, Panagi SG et al. Characteristics of adult celiac disease in the USA: results of a national survey. *Am J Gastroenterol* 2001;96(1):126-131. Not about consequences of testing
- Greenberger N J, Saegh S, Ruppert R D. Urine indican excretion in malabsorptive disorders. *Gastroenterology* 1968;55(2):204-211. Not about consequences of testing
- Grodzinsky E, Hed J, Lieden G et al. Presence of IgA and IgG antigliadin antibodies in healthy adults as measured by micro-ELISA. Effect of various cutoff levels on specificity and sensitivity when diagnosing coeliac disease. *Int Arch Allergy Appl Immunol* 1990;92(2):119-123. Not about consequences of testing
- Grodzinsky E, Hed J, Skogh T. IgA antiendomysium antibodies have a high positive predictive value for celiac disease in asymptomatic patients. *Allergy* 1994;49(8):593-597. Not about consequences of testing
- Grodzinsky E, Ivarsson A, Juto P et al. New automated immunoassay measuring immunoglobulin A antigliadin antibodies for prediction of celiac disease in childhood. *Clin Diagn Lab Immunol* 2001;8(3):564-570. Not about consequences of testing
- Grodzinsky E, Jansson G, Skogh T et al. Anti-endomysium and anti-gliadin antibodies as serological markers for coeliac disease in childhood: a clinical study to develop a practical routine. *Acta Paediatr* 1995;84(3):294-298. Not about consequences of testing
- Grodzinsky E. Screening for coeliac disease in apparently healthy blood donors. *Acta Paediatr* 1996;412(Suppl):36-38. Not about consequences of testing
- Grunbaum Jo A, Rodriguez Beatriz L, Labarthe Darwin R. Parental response to identification of elevated blood pressure or cholesterol following school-based screening. *J Adolesc Health* 1993;14(2):99-103. Not about consequences of testing
- Guandalini Stefano. Celiac disease. *School Nurse News* 2003;20(2):24-27. Not about consequences of testing
- Guinnepain M T, Eloit C, Raffard M et al. Exercise-induced anaphylaxis: useful screening of food sensitization. *Annals of Allergy, Asthma & Immunology - Official Publication of the American College of Allergy, Asthma, & Immunology* 1996;77(6):491-496. Not about consequences of testing
- Gupta S K, Bhu N, Singh P P et al. Oxalate loading test for screening steatorrhea in diabetics. *Jpn J Exp Med* 1987;57(3):141-143. Not about consequences of testing
- Guvenc cedil, Kaymakog caron, Gurel N et al. The prevalence of manifest and latent celiac disease in type 1 diabetes mellitus. *Turk J Gastroenterol* 2002;13(2):103-107. Not about consequences of testing
- Habior Andrzej, Lewartowska Aleksandra, Orlowska Janina et al. Association of coeliac disease with primary biliary cirrhosis in Poland. *Eur J Gastroenterol Hepatol* 2003;15(2):159-164. Not about consequences of testing
- Hadjivassiliou M, Davies-Jones G A B, Sanders D S et al. Dietary treatment of gluten ataxia. *J Neurol Neurosurg Psychiatry* 2003;74(9):1221-1224. Not about consequences of testing
- Hadjivassiliou M, Gibson A, Davies-Jones G A et al. Does cryptic gluten sensitivity play a part in neurological illness?. *Lancet* 1996;347(8998):369-371. Not about consequences of testing

- Hadjivassiliou M, Grunewald R A, Chattopadhyay A K et al. Clinical, radiological, neurophysiological, and neuropathological characteristics of gluten ataxia. *Lancet* 1998;352(9140):1582-1585. Not about consequences of testing
- Hadjivassiliou Marios, Grunewald Richard, Sharrack Basil et al. Gluten ataxia in perspective: epidemiology, genetic susceptibility and clinical characteristics. *Brain Dev* 2003;126(Pt 3):685-691. Not about consequences of testing
- Hadziselimovic F, Emmons L R, Schaub U et al. Occurrence of large granular lymphocytes and natural killer cells in the epithelium of the gut distinguishes two different coeliac diseases. *Gut* 1992;33(6):767-772. Not about consequences of testing
- Hakeem V, Fifield R, al Bayaty H F et al. Salivary IgA anti gliadin antibody as a marker for coeliac disease. *Arch Dis Child* 1992;67(6):724-727. Not about consequences of testing
- Hall W H. Proximal muscle atrophy in adult celiac disease. *Am J Dig Dis* 1968;13(8):697-704. Not about consequences of testing
- Hallert C, Astrom J. Intellectual ability of adults after lifelong intestinal malabsorption due to coeliac disease. *J Neurol Neurosurg Psychiatry* 1983;46(1):87-89. Not about consequences of testing
- Hallert C, Granno C, Grant C et al. Quality of life of adult coeliac patients treated for 10 years. *Scand J Gastroenterol* 1998;33(9):933-938. Not about consequences of testing
- Hallert C, Granno C, Hulten S et al. Living with coeliac disease: controlled study of the burden of illness. *Scand J Gastroenterol* 2002;37(1):39-42. Not about consequences of testing
- Hallert C, Lohiniemi S. Quality of life of celiac patients living on a gluten-free diet. *Nutrition* 1999;15(10):795-797. Not about consequences of testing
- Hallert C, Tobiasson P, Walan A. Serum folate determinations in tracing adult coeliacs. *Scand J Gastroenterol* 1981;16(2):263-267. Not about consequences of testing
- Hallstrom O. Comparison of IgA-class reticulin and endomysium antibodies in coeliac disease and dermatitis herpetiformis. *Gut* 1989;30(9):1225-1232. Not about consequences of testing
- Hamilton J R, McNeill L K. Childhood celiac disease: response of treated patients to a small uniform daily dose of wheat gluten. *Eur J Pediatr* 1972;81(5):885-893. Not about consequences of testing
- Hanasz-Jarzynska T, Ignys I. Infantile colic and food allergy. *Int Rev Allergol Clin Immunol* 1998;4(3):111-114. Not about consequences of testing
- Hankey G L, Holmes G K. Coeliac disease in the elderly. *Gut* 1994;35(1):65-67. Not about consequences of testing
- Hansen D, Bennedbaek F N, Hansen L K et al. High prevalence of coeliac disease in Danish children with type I diabetes mellitus. *Acta Paediatr* 2001;90(11):1238-1243. Not about consequences of testing
- Hanson L A. Human milk and host defence: immediate and long-term effects. *Acta Paediatr Suppl* 1999;88(430):42-46. Not about consequences of testing
- Hansson T, Anneren G, Sjoberg O et al. Celiac disease in relation to immunologic serum markers, trace elements, and HLA-DR and DQ antigens in Swedish children with Down syndrome. *J Pediatr Gastroenterol Nutr* 1999;29(3):286-292. Not about consequences of testing
- Hansson T, Dahlbom I, Hall J et al. Antibody reactivity against human and guinea pig tissue transglutaminase in children with celiac disease. *J Pediatr Gastroenterol Nutr* 2000;30(4):379-384. Not about consequences of testing
- Hansson T, Dannaeus A, Kraaz W et al. Production of antibodies to gliadin by peripheral blood lymphocytes in children with celiac disease: the use of an enzyme-linked immunospot technique for screening and follow-up. *Pediatr Res* 1997;41(4 Pt 1):554-559. Not about consequences of testing
- Hansson Tony, Dahlbom Ingrid, Rogberg Siv et al. Recombinant human tissue transglutaminase for diagnosis and follow-up of childhood coeliac disease. *Pediatr Res* 2002;51(6):700-705. Not about consequences of testing
- Hanukoglu A, Mizrahi A, Dalal I et al. Extraprostatic autoimmune manifestations in type 1 diabetes patients and their first-degree relatives: A multicenter study. *Diabetes Care* 2003;26(4):1235-1240. Not about consequences of testing
- Harper G D, Wheeler D C, Wicks A C B. Butterfat absorption - a valuable screening test in malabsorption. *Postgrad Med J* 1994;70(819):23-26. Not about consequences of testing
- Harvey Richard F, Shaw Ian S. Current thinking in coeliac disease. *Br J Gen Pract* 2002;246(1638):596-602. Not about consequences of testing

- Haycock G B. Screening test for coeliac disease. *Arch Dis Child* 1976;51(5):401. Not about consequences of testing
- Healy D A, Neumyer M M, Atnip R G et al. Evaluation of celiac and mesenteric vascular disease with duplex ultrasonography. *Journal of Ultrasound in Medicine - Official Journal of the American Institute of Ultrasound in Medicine* 1992;11(9):481-485. Not about consequences of testing
- Heikkinen M, Janatuinen E, Mayo K et al. Usefulness of anti-*Helicobacter pylori* and anti-CagA antibodies in the selection of patients for gastroscopy. *Am J Gastroenterol* 1997;92(12):2225-2229. Not about consequences of testing
- Heikkinen M, Pikkarainen P, Takala J et al. Etiology of dyspepsia: four hundred unselected consecutive patients in general practice. *Scand J Gastroenterol* 1995;30(6):519-523. Not about consequences of testing
- Heneghan M A, Mchugh P, Stevens F M et al. Addison's disease and selective IgA deficiency in two coeliac patients. *Scand J Gastroenterol* 1997;32(5):509-511. Not about consequences of testing
- Henker J, Zugehor M, Morrenz J. Reticulin antibodies in coeliac disease. *Acta Paediatr Hung* 1983;24(4):349-353. Not about consequences of testing
- Hennessy W B, Ralston M. Ileocaecal carcinoma and the coeliac syndrome. *Gut* 1969;10(11):951-952. Not about consequences of testing
- Hernandez M A, Colina G, Ortigosa L. Epilepsy, cerebral calcifications and clinical or subclinical coeliac disease. Course and follow up with gluten-free diet. *Seizure* 1998;7(1):49-54. Not about consequences of testing
- Hertervig E, Wieslander J, Johansson C et al. Anti-neutrophil cytoplasmic antibodies in chronic inflammatory bowel disease. Prevalence and diagnostic role. *Scand J Gastroenterol* 1995;30(7):693-698. Not about consequences of testing
- Hill I, Fasano A, Schwartz R et al. The prevalence of celiac disease in at-risk groups of children in the United States. *Eur J Pediatr* 2000;136(1):86-90. Not about consequences of testing
- Hill Ivor D, Bhatnagar Shinjini, Cameron Donald J S et al. Celiac disease: Working Group Report of the First World Congress of Pediatric Gastroenterology, Hepatology, and Nutrition. *J Pediatr Gastroenterol Nutr* 2002;35(Suppl 2):78-88. Not about consequences of testing
- Hill P G, Thompson S P, Holmes G K. IgA anti-gliadin antibodies in adult celiac disease. *Clin Chem* 1991;37(5):647-650. Not about consequences of testing
- Hill R E, Durie P R, Gaskin K J et al. Steatorrhea and pancreatic insufficiency in Shwachman syndrome. *Gastroenterology* 1982;83(1 Pt 1):22-27. Not about consequences of testing
- Hin H, Bird G, Fisher P et al. Coeliac disease in primary care: case finding study. *BMJ* 1999;318(7177):164-167. Not about consequences of testing
- Hjelt K, Krasilnikoff P A. The impact of gluten on haematological status, dietary intakes of haemopoietic nutrients and vitamin B12 and folic acid absorption in children with coeliac disease. *Acta Paediatr Scand* 1990;79(10):911-919. Not about consequences of testing
- Hoey John. Irritable bowel syndrome: could it be celiac disease?. *Cmaj - Canadian Medical Association Journal = Journal De L'association Medicale Canadienne* 2002;166(4):479-480. Not about consequences of testing
- Hoffbrand A V. Anaemia in adult coeliac disease. *Clin Gastroenterol* 1974;3(1):71-89. Not about consequences of testing
- Hoffenberg E J, Bao F, Eisenbarth G S et al. Transglutaminase antibodies in children with a genetic risk for celiac disease. *Eur J Pediatr* 2000;137(3):356-360. Not about consequences of testing
- Hoffenberg E J, Haas J, Drescher A et al. A trial of oats in children with newly diagnosed celiac disease. *Eur J Pediatr* 2000;137(3):361-366. Not about consequences of testing
- Hogberg L, Falth-Magnusson K, Grodzinsky E et al. Familial prevalence of coeliac disease: A twenty-year follow-up study. *Scand J Gastroenterol* 2003;38(1):61-65. Not about consequences of testing
- Holdstock G, Eade O E, Isaacson P et al. Endoscopic duodenal biopsies in coeliac disease and duodenitis. *Scand J Gastroenterol* 1979;14(6):717-720. Not about consequences of testing
- Holdstock G. Jejunal biopsy without the need for screening. *Lancet* 1978;1(8076):1236-1237. Not about consequences of testing
- Holmes G K T. Coeliac disease and malignancy. *Digestive and Liver Disease - Official Journal of the Italian Society of Gastroenterology and the Italian Association for the Study of the Liver* 2002;34(3):229-237. Not about consequences of testing

- Holmes G K T. Screening for coeliac disease in type 1 diabetes. *Arch Dis Child* 2002;87(6):495-498. Not about consequences of testing
- Holmes G K. Coeliac disease and Type 1 diabetes mellitus - the case for screening. *Diabet Med* 2001;18(3):169-177. Not about consequences of testing
- Holmes G K. Non-malignant complications of coeliac disease. *Acta Paediatr* 1996;412(Suppl):68-75. Not about consequences of testing
- Holt Peter R. Gastrointestinal diseases in the elderly. *Curr Opin Clin Nutr Metab Care* 2003;6(1):41-48. Not about consequences of testing
- Holt Worthe S. Factors affecting compliance with screening sigmoidoscopy. *J Fam Pract* 1991;32(6):585-589. Not about consequences of testing
- Horvath K, Mehta D I. Celiac disease--a worldwide problem. *Indian J Pediatr* 2000;67(10):757-763. Not about consequences of testing
- Horvath Karoly, Hill Ivor D. Anti-tissue transglutaminase antibody as the first line screening for celiac disease: good-bye antigliadin tests?. *Am J Gastroenterol* 2002;97(11):2702-2704. Not about consequences of testing
- Hourihane D O, Weir D G. Malignant celiac syndrome. Report of two cases with malabsorption and microscopic foci of intestinal lymphoma. *Gastroenterology* 1970;59(1):130-139. Not about consequences of testing
- Hovell C J, Collett J A, Vautier G et al. High prevalence of coeliac disease in a population-based study from Western Australia: a case for screening?. *Med J Aust* 2001;175(5):247-250. Not about consequences of testing
- Howard MR, Turnbull AJ, Morley P et al. A prospective study of the prevalence of undiagnosed coeliac disease in laboratory defined iron and folate deficiency. *J Clinl Path* 2002; 55(10):754-757. Not about consequences of testing
- Hulse J A. Referral criteria for growth screening. *J Med Screen* 1995;2(3):168-170. Not about consequences of testing
- Hummel M, Bonifacio E, Stern M et al. Development of celiac disease-associated antibodies in offspring of parents with type I diabetes. *Diabetologia* 2000;43(8):1005-1011. Not about consequences of testing
- Hurley T H, Sullivan J R, Hurley J V. Reaction to Kveim test material in sarcoidosis and other diseases. *Lancet* 1975;1(7905):494-496. Not about consequences of testing
- Hyams J S, Treem W R, Justinich C J et al. Characterization of symptoms in children with recurrent abdominal pain: resemblance to irritable bowel syndrome. *J Pediatr Gastroenterol Nutr* 1995;20(2):209-214. Not about consequences of testing
- Hyer W, Cotterill A M, Savage M O. Common causes of short stature detectable by a height surveillance programme. *J Med Screen* 1995;2(3):150-153. Not about consequences of testing
- Iacono G, Carroccio A, Montalto G et al. Steatocrit test after a standard fatty meal: a new simple and sensitive test to detect malabsorption. *J Pediatr Gastroenterol Nutr* 1991;13(2):161-167. Not about consequences of testing
- Iacono G, Carroccio A, Montalto G et al. Steatocrit test: normal range and physiological variations in preterm and low-birth-weight full-term newborns. *Acta Paediatr* 1992;81(11):933-934. Not about consequences of testing
- Iancu T, Elian E. The intestinal microvillus. Ultrastructural variability in coeliac disease and cow's milk intolerance. *Acta Paediatr Scand* 1976;65(1):65-73. Not about consequences of testing
- Iglesias S, Chapon F, Baron J C. Familial occipital calcifications, hemorrhagic strokes, leukoencephalopathy, dementia, and external carotid dysplasia. *Neurology* 2000;55(11):1661-1667. Not about consequences of testing
- Iovino P, Ciacci C, Sabbatini F et al. Esophageal impairment in adult celiac disease with steatorrhea. *Am J Gastroenterol* 1998;93(8):1243-1249. Not about consequences of testing
- Ivarsson A, Persson L A, Juto P et al. High prevalence of undiagnosed coeliac disease in adults: a Swedish population-based study. *J Intern Med* 1999;245(1):63-68. Not about consequences of testing
- Ivarsson S A, Carlsson A, Bredberg A et al. Prevalence of coeliac disease in Turner syndrome. *Acta Paediatr* 1999;88(9):933-936. Not about consequences of testing
- Jaeger C, Hatzigelaki E, Petzoldt R et al. Comparative analysis of organ-specific autoantibodies and celiac disease--associated antibodies in type 1 diabetic patients, their first-degree relatives, and healthy control subjects. *Diabetes Care* 2001;24(1):27-32. Not about consequences of testing
- James MW, Scott BB. Evidence-based clinical medicine: Application of a diagnostic test using the

example of coeliac disease. *Cme J Gastroenterol Hepatol Nutr* 2001; 4(1):28-31. Unable to obtain article

Janatkova I, Malic caron, Fu caron et al. Diagnostic asset of assessment of autoantibodies in gluten-sensitive enteropathy. *Epidemiol Mikrobiol Immunol* 2002;51(3):125-130. Not about consequences of testing

Janatuinen E K, Kempainen T A, Julkunen R J K et al. No harm from five year ingestion of oats in coeliac disease. *Gut* 2002;50(3):332-335. Not about consequences of testing

Jansson U H, Gudjonsdottir A H, Ryd W et al. Two different doses of gluten show a dose-dependent response of enteropathy but not of serological markers during gluten challenge in children with coeliac disease. *Acta Paediatr* 2001;90(3):255-259. Not about consequences of testing

Jansson Ulf H G, Kristiansson Bengt, Albertsson-Wikland Kerstin et al. Short-term gluten challenge in children with coeliac disease does not impair spontaneous growth hormone secretion. *J Pediatr Endocrinol Metab* 2003;16(5):771-778. Not about consequences of testing

Jaskowski T D, Schroder C, Martins T B et al. IgA antibodies against endomysium and transglutaminase: a comparison of methods. *J Clin Lab Anal* 2001;15(3):108-111. Not about consequences of testing

Jennings J S R, Howdle P D. Celiac disease. *Curr Opin Gastroenterol* 2001;17(2):118-126. Not about consequences of testing

Johansen B H, Gjertsen H A, Vartdal F et al. Binding of peptides from the N-terminal region of alpha-gliadin to the celiac disease-associated HLA-DQ2 molecule assessed in biochemical and T cell assays. *Clin Immunol Immunopathol* 1996;79(3):288-293. Not about consequences of testing

Johnson R E, Green T A, Schachter J et al. Evaluation of nucleic acid amplification tests as reference tests for Chlamydia trachomatis infections in asymptomatic men. *J Clin Microbiol* 2000;38(12):4382-4386. Not about consequences of testing

Johnston S D, Peter Watson R G, McMillan S A. Soda bread provocation test for subjects with transient serology for coeliac disease 3 years after a population screening survey. *Eur J Gastroenterol Hepatol* 2000;12(9):1013-1015. Not about consequences of testing

Johnston S D, Ritchie C, Robinson J. Application of red cell distribution width to screening for coeliac disease in insulin-dependent diabetes mellitus. *Ir J*

*Med Sci* 1999;168(3):167-170. Not about consequences of testing

Johnston S D, Smye M, Watson R G P et al. Lactulose-mannitol intestinal permeability test: A useful screening test for adult coeliac disease. *Ann Clin Biochem* 2000;37(4):512-519. Not about consequences of testing

Johnston S D, Smye M, Watson R P. Intestinal permeability tests in coeliac disease. *Clin Lab* 2001;47(3-4):143-150. Not about consequences of testing

Johnston S D, Watson R G P. Small bowel lymphoma in unrecognized coeliac disease: A cause for concern?. *Eur J Gastroenterol Hepatol* 2000;12(6):645-648. Not about consequences of testing

Johnston S D, Watson R G, McMillan S A et al. Preliminary results from follow-up of a large-scale population survey of antibodies to gliadin, reticulin and endomysium. *Acta Paediatr* 1996;412(Suppl):61-64. Not about consequences of testing

Johnston S D, Watson R G, McMillan S A et al. Serological markers for coeliac disease: changes with time and relationship to enteropathy. *Eur J Gastroenterol Hepatol* 1998;10(3):259-264. Not about consequences of testing

Johnston S D, Watson R G, Middleton D et al. Genetic, morphometric and immunohistochemical markers of latent coeliac disease. *Eur J Gastroenterol Hepatol* 1999;11(11):1283-1288. Not about consequences of testing

Johnston Simon D, McMillan Stanley A, Collins John S et al. A comparison of antibodies to tissue transglutaminase with conventional serological tests in the diagnosis of coeliac disease. *Eur J Gastroenterol Hepatol* 2003;15(9):1001-1004. Not about consequences of testing

Johnstone D E. Food allergy in children under two years of age. *Pediatr Clin North Am* 1969;16(1):211-216. Not about consequences of testing

Jokinen J, Peters U, Maki M et al. Celiac sprue in patients with chronic oral mucosal symptoms. *J Clin Gastroenterol* 1998;26(1):23-26. Not about consequences of testing

Juby L D, Rothwell J, Axon A T. Lactulose/mannitol test: an ideal screen for celiac disease. *Gastroenterology* 1989;96(1):79-85. Not about consequences of testing

Juto P, Fredrikzon B, Hernell O. Gliadin-specific serum immunoglobulins A, E, G, and M in childhood: relation to small intestine mucosal morphology. *J*

- Pediatr Gastroenterol Nutr 1985;4(5):723-729. Not about consequences of testing
- Kalapesi Z, Rees J P R. Coeliac disease in schoolchildren. *Ir Med J* 1978;71(6):188-191. Not about consequences of testing
- Kallikorm R, Uibo O, Uibo R. Coeliac disease in spondyloarthropathy: usefulness of serological screening. *Clin Rheumatol* 2000;19(2):118-122. Not about consequences of testing
- Kapadia C. The reliability of noninvasive tests for celiac disease. *Gastroenterology* 1995;108(2):608-610. Not about consequences of testing
- Kapuscinska A, Zalewski T, Chorzelski TP et al. Disease specificity and dynamics of changes in IgA class anti-endomysial antibodies in celiac disease. *J Pediatr Gastroenterol Nutr* 1987; 6(4):529-534. Not about consequences of testing
- Karczewska K, Lukasik M, Kasner J et al. Familial occurrence of celiac disease and isolated immunoglobulin a deficiency. *Med Sci Monit* 1998;4(5):836-839. Not about consequences of testing
- Katz A J, Falchuk Z M. Current concepts in gluten sensitive enteropathy (celiac sprue). *Pediatr Clin North Am* 1975;22(4):767-785. Not about consequences of testing
- Kaukinen K, Collin P, Holm K et al. Small-bowel mucosal inflammation in reticulon or gliadin antibody-positive patients without villous atrophy. *Scand J Gastroenterol* 1998;33(9):944-949. Not about consequences of testing
- Kaukinen K, Collin P, Holm K et al. Wheat starch-containing gluten-free flour products in the treatment of coeliac disease and dermatitis herpetiformis. A long-term follow-up study. *Scand J Gastroenterol* 1999;34(2):163-169. Not about consequences of testing
- Kaukinen K, Halme L, Collin P et al. Celiac disease in patients with severe liver disease: Gluten-free diet may reverse hepatic failure. *Gastroenterology* 2002; 122(4):881-888. Not about consequences of testing
- Kaukinen Katri, Partanen Jukka, Maki Markku et al. HLA-DQ typing in the diagnosis of celiac disease. *Am J Gastroenterol* 2002;97(3):695-699. Not about consequences of testing
- Kaukinen Katri, Sulkanen Satu, Maki Markku et al. IgA-class transglutaminase antibodies in evaluating the efficacy of gluten-free diet in coeliac disease. *Eur J Gastroenterol Hepatol* 2002;14(3):311-315. Not about consequences of testing
- Kawasaki E, Eisenbarth G S. High-throughput radioassays for autoantibodies to recombinant autoantigens. *Front Biosci* 2000;5:181-190. Not about consequences of testing
- Kelly C P, Feighery C F, Gallagher R B et al. Mucosal and systemic IgA anti-gliadin antibody in celiac disease. Contrasting patterns of response in serum, saliva, and intestinal secretions. *Dig Dis Sci* 1991;36(6):743-751. Not about consequences of testing
- Kelly J, O'Farrelly C, Rees J P et al. Humoral response to alpha gliadin as serological screening test for coeliac disease. *Arch Dis Child* 1987;62(5):469-473. Not about consequences of testing
- Kelly J, Whelan C A, Weir D G et al. Removal of endogenous peroxidase activity from cryostat sections for immunoperoxidase visualisation of monoclonal antibodies. *J Immunol Methods* 1987;96(1):127-132. Not about consequences of testing
- Kennedy N P, Feighery C. Clinical features of coeliac disease today. *Biomed Pharmacother* 2000;54(7):373-380. Not about consequences of testing
- Kerlin P, Wong L. Breath hydrogen testing in bacterial overgrowth of the small intestine. *Gastroenterology* 1988;95(4):982-988. Not about consequences of testing
- Khoshoo V, Bhan M K, Unsworth D J et al. Anti-reticulon antibodies: useful adjunct to histopathology in diagnosing celiac disease, especially in a developing country. *J Pediatr Gastroenterol Nutr* 1988;7(6):864-866. Not about consequences of testing
- Khuffash F A, Barakat M H, Shaltout A A et al. Coeliac disease among children in Kuwait: difficulties in diagnosis and management. *Gut* 1987;28(12):1595-1599. Not about consequences of testing
- Kieffer M. Serum antibodies to gliadin and other cereal proteins in patients with coeliac disease and dermatitis herpetiformis. *Dan Med Bull* 1985;32(5):251-262. Not about consequences of testing
- Kieslich M, Errazuriz G, Posselt H G et al. Brain white-matter lesions in celiac disease: a prospective study of 75 diet-treated patients. *Pediatrics* 2001;108(2):E21 Not about consequences of testing
- Kilander A F, Dotevall G, Fallstrom S P et al. Evaluation of gliadin antibodies for detection of coeliac disease. *Scand J Gastroenterol* 1983;18(3):377-383. Not about consequences of testing

- King A L, Fraser J S, Moodie S J et al. Coeliac disease: follow-up linkage study provides further support for existence of a susceptibility locus on chromosome 11p11. *Ann Hum Genet* 2001;65(Pt 4):377-386. Not about consequences of testing
- Kingham J G, Parker D R. The association between primary biliary cirrhosis and coeliac disease: a study of relative prevalences. *Gut* 1998;42(1):120-122. Not about consequences of testing
- Klasen E C, Polanco I, Biemond I et al. alpha 1-Antitrypsin and coeliac disease in Spain. *Gut* 1980;21(11):948-950. Not about consequences of testing
- Knivsberg A M. Urine patterns, peptide levels and IgA/IgG antibodies to food proteins in children with dyslexia. *Pediatr Rehabil* 1997;1(1):25-33. Not about consequences of testing
- Kocna Petr, Vanickova Zdislava, Perusicova Jindriska et al. Tissue transglutaminase-serology markers for coeliac disease. *Clin Chem Lab Med* 2002;40(5):485-492. Not about consequences of testing
- Kokkonen J, Viitanen A, Simila S. Coping with a coeliac diet after adolescence. *Helv Paediatr Acta* 1989; 43(4):261-265. Unable to obtain article
- Kolek A, Fischerova E, Kos V et al. Application of ELISA method to determine antigliadin antibodies in children with coeliac disease. *Acta Univ Palacki Olomuc Fac Med* 1989;122:183-192. Not about consequences of testing
- Kolek A, Vospelova J, Hermanova Z et al. Occurrence of Coeliac Disease in Children With Down Syndrome in North Moravia, Czech Republic. *Eur J Pediatr* 2003;162(3):207-208. Not about consequences of testing
- Koletzko S, Burgin-Wolff A, Koletzko B et al. Prevalence of coeliac disease in diabetic children and adolescents. A multicentre study. *Eur J Pediatr* 1988;148(2):113-117. Not about consequences of testing
- Kolho K L, Farkkila M A, Savilahti E. Undiagnosed coeliac disease is common in Finnish adults. *Scand J Gastroenterol* 1998;33(12):1280-1283. Not about consequences of testing
- Kolho K L, Jusufovic J, Miettinen A et al. Parietal cell antibodies and *Helicobacter pylori* in children. *J Pediatr Gastroenterol Nutr* 2000;30(3):265-268. Not about consequences of testing
- Kolho K L, Savilahti E. IgA endomysium antibodies on human umbilical cord: an excellent diagnostic tool for celiac disease in childhood. *J Pediatr Gastroenterol Nutr* 1997;24(5):563-567. Not about consequences of testing
- Kolho K L, Tiitinen A, Tulppala M et al. Screening for coeliac disease in women with a history of recurrent miscarriage or infertility. *Br J Obstet Gynaecol* 1999;106(2):171-173. Not about consequences of testing
- Kolsteren M M, Koopman H M, Schalekamp G et al. Health-related quality of life in children with celiac disease. *Eur J Pediatr* 2001;138(4):593-595. Not about consequences of testing
- Koop I, Ilchmann R, Izzi L et al. Detection of autoantibodies against tissue transglutaminase in patients with celiac disease and dermatitis herpetiformis. *Am J Gastroenterol* 2000;95(8):2009-2014. Not about consequences of testing
- Korponay-Szabo I R, Kovacs J B, Czinner A et al. High prevalence of silent celiac disease in preschool children screened with IgA/IgG antiendomysium antibodies. *J Pediatr Gastroenterol Nutr* 1999;28(1):26-30. Not about consequences of testing
- Korponay-Szabo I R, Kovacs J B, Lorincz M et al. Prospective significance of antiendomysium antibody positivity in subsequently verified celiac disease. *J Pediatr Gastroenterol Nutr* 1997;25(1):56-63. Not about consequences of testing
- Korponay-Szabo I, Kovacs J, Lorincz M et al. Families with multiple cases of gluten-sensitive enteropathy. *Z Gastroenterol* 1998;36(7):553-558. Not about consequences of testing
- Kotze L M, Utiyama S R, Nisihara R M et al. Antiendomysium antibodies in Brazilian patients with celiac disease and their first-degree relatives. *Arq Gastroenterol* 2001;38(2):94-103. Not about consequences of testing
- Kowalska E, Wasowska-Krolkowska K, Toporowska-Kowalska E. Estimation of antithyroid antibodies occurrence in children with coeliac disease. *Medical Science Monitor - International Medical Journal of Experimental and Clinical Research* 2000;6(4):719-721. Not about consequences of testing
- Kowlessar O D, Phillips L D. Celiac disease. *Med Clin North Am* 1970;54(3):647-656. Not about consequences of testing
- Krasilnikoff P A, Gudman-Hoyer E, Moltke H H. Diagnostic value of disaccharide tolerance tests in children. *Acta Paediatr Scand* 1975;64(5):693-698. Not about consequences of testing
- Krawitt E L, Chastenay B F. 25-hydroxy vitamin D absorption test in patients with gastrointestinal

- disorders. *Calcif Tissue Int* 1980;32(3):183-187. Not about consequences of testing
- Kristiansson B, Karlberg J, Fallstrom S P. Infants with low rate of weight gain. I. A study of organic factors and growth patterns. *Acta Paediatr Scand* 1981;70(5):655-662. Not about consequences of testing
- Kugathasan S, Czinn S J. Gastroduodenal inflammation and related disorders in children. *Curr Opin Gastroenterol* 1996;12(6):537-543. Not about consequences of testing
- Kuitunen P, Kosnai I, Savilahti E. Morphometric study of the jejunal mucosa in various childhood enteropathies with special reference to intraepithelial lymphocytes. *J Pediatr Gastroenterol Nutr* 1982;1(4):525-531. Not about consequences of testing
- Kull K, Uibo O, Salupere R et al. High frequency of anti gliadin antibodies and absence of antireticulin and antiendomysium antibodies in patients with ulcerative colitis. *J Gastroenterol* 1999;34(1):61-65. Not about consequences of testing
- Kumar P J, Walker-Smith J, Milla P et al. The teenage coeliac: follow up study of 102 patients. *Arch Dis Child* 1988;63(8):916-920. Not about consequences of testing
- Kumar P J. European and North American populations should be screened for coeliac disease. *Gut* 2003;52(2):170-171. Not about consequences of testing
- Kumar Rajesh, Eastwood Amy L, Brown Milton L et al. Human genome search in celiac disease: mutated gliadin T-cell-like epitope in two human proteins promotes T-cell activation. *J Mol Biol* 2002;319(3):593-602. Not about consequences of testing
- Kumar V, Jarzabek-Chorzelska M, Sulej J et al. Tissue transglutaminase and endomysial antibodies - diagnostic markers of gluten-sensitive enteropathy in dermatitis herpetiformis. *Clin Immunol* 2001;98(3):378-382. Not about consequences of testing
- Kumar V, Rajadhyaksha M, Wortsman J. Celiac disease-associated autoimmune endocrinopathies. *Clin Diagn Lab Immunol* 2001;8(4):678-685. Not about consequences of testing
- Kushnir Talma, Rabinowitz Stanley, Melamed Samuel et al. Health responsibility and workplace health promotion among women: Early detection of cancer. *Health Care Women Int* 1995;16(4):329-340. Not about consequences of testing
- La Seta F, Salerno G, Buccellato A et al. Radiographic indicators of adult celiac disease assessed by double-contrast small bowel enteroclysis. *Eur J Radiol* 1992;15(2):157-162. Not about consequences of testing
- Labate A, Gambardella A, Messina D et al. Silent celiac disease in patients with childhood localization-related epilepsies. *Epilepsia* 2001;42(9):1153-1155. Not about consequences of testing
- Labib M, Gama R, Marks V. Predictive value of D-xylose absorption test and erythrocyte folate in adult coeliac disease: a parallel approach. *Ann Clin Biochem* 1990;27(Pt 1):75-77. Not about consequences of testing
- Lad R, Jacobson K. The changing face of celiac disease. *Paediatr Child Health* 2001;6(9):644-651. Not about consequences of testing
- Ladinsler B, Rossipal E, Pittschieler K. Endomysium antibodies in coeliac disease: an improved method. *Gut* 1994;35(6):776-778. Not about consequences of testing
- Lagerqvist C, Ivarsson A, Juto P et al. Screening for adult coeliac disease - which serological marker(s) to use?. *J Intern Med* 2001;250(3):241-248. Not about consequences of testing
- Lahat E, Broide E, Leshem M et al. Prevalence of celiac antibodies in children with neurologic disorders. *Pediatr Neurol* 2000;22(5):393-396. Not about consequences of testing
- Lahteenoja H, Maki M, Viander M et al. Local challenge of oral mucosa with gliadin in patients with coeliac disease. *Clin Exp Immunol* 2000;120(1):38-45. Not about consequences of testing
- Lahteenoja H, Maki M, Viander M et al. Local challenge on oral mucosa with an alpha-gliadin related synthetic peptide in patients with celiac disease. *Am J Gastroenterol* 2000;95(10):2880-2887. Not about consequences of testing
- Lahteenoja H, Toivanen A, Raiha I et al. Salivary anti gliadin and antiendomysium antibodies in coeliac disease. *Scand J Immunol* 1999;50(5):528-535. Not about consequences of testing
- Lamabadusuriya S P, Packer S, Harries J T. Limitations of xylose tolerance test as a screening procedure in childhood coeliac disease. *Arch Dis Child* 1975;50(1):34-39. Not about consequences of testing
- Lamabadusuriya S P, Packer S, Harries J T. Proceedings: Limitations of xylose tolerance test as screening procedure for coeliac disease. *Arch Dis*

- Child 1974;49(3):244-245. Not about consequences of testing
- Lamontagne P, West G E, Galibois I. Quebecers with celiac disease: analysis of dietary problems. Canadian Journal of Dietetic Practice and Research - a Publication of Dietitians of Canada = Revue Canadienne De La Pratique Et De La Recherche En Dietetique - Une Publication Des Dietetistes Du C 2001;62(4):175-181. Not about consequences of testing
- Lampasona V, Bazzigaluppi E, Barera G et al. Tissue transglutaminase and combined screening for coeliac disease and type 1 diabetes-associated autoantibodies. Lancet 1998;352(9135):1192-1193. Not about consequences of testing
- Lang-Muritano M, Molinari L, Dommann-Scherrer C et al. Incidence of enteropathy-associated T-cell lymphoma in celiac disease: Implications for children and adolescents with type 1 diabetes. Pediatr Diabetes 2002;3(1):42-45. Not about consequences of testing
- Lankisch P G, Martinez Schramm A, Petersen F et al. Diagnostic intervals for recognizing celiac disease. Z Gastroenterol 1996;34(8):473-477. Not about consequences of testing
- Lapini M, Lasagni D, Ferrari R. Detection of anti-smooth muscle antibodies in the sera of patients with celiac disease: Relationship with anti-endomysium antibodies. Eur J Lab Med 1998;6(3):174-176. Not about consequences of testing
- Larcher V F, Shepherd R, Francis D E et al. Protracted diarrhoea in infancy. Analysis of 82 cases with particular reference to diagnosis and management. Arch Dis Child 1977;52(8):597-605. Not about consequences of testing
- Larizza D, Calcaterra V, De Giacomo C et al. Celiac disease in children with autoimmune thyroid disease. Eur J Pediatr 2001;139(5):738-740. Not about consequences of testing
- Larizza D, Calcaterra V, Luinetti O et al. Evidence for immunogenetic predisposition in children with celiac disease and autoimmune thyroid disease. Int J Med Biol Environ 2001;29(2):143-148. Not about consequences of testing
- Lasagni D, Ferrari R, Lapini M. Unmasking anti-endomysial antibodies in coeliac subjects positive for anti-smooth muscle antibodies. Acta Paediatr 1999;88(4):462-464. Not about consequences of testing
- Lavy U, Bauer C H. Pathophysiology of failure to thrive in gastrointestinal disorders. Pediatr Ann 1978;7(11):743-749. Not about consequences of testing
- Lazzari R, Volta U, Bianchi F B et al. R1 reticulin antibodies: markers of celiac disease in children on a normal diet and on gluten challenge. J Pediatr Gastroenterol Nutr 1984;3(4):516-522. Not about consequences of testing
- Lebenthal E, Branski D. Childhood celiac disease--a reappraisal. Eur J Pediatr 1981;98(5):681-690. Not about consequences of testing
- Lebenthal E, Heitlinger L A. Gliadin antibodies in celiac disease. Eur J Pediatr 1983;102(5):711-712. Not about consequences of testing
- Lebenthal Emanuel, Branski David. Celiac disease: an emerging global problem. J Pediatr Gastroenterol Nutr 2002;35(4):472-474. Not about consequences of testing
- Lebenthal Emanuel, Branski David. Serum anti-endomysial and anti-tissue transglutaminase for screening of celiac disease. Isr Med Assoc J 2002;4(8):627-628. Not about consequences of testing
- Lee M F. The diagnosis of steatorrhea in outpatients. Br J Surg 1970;57(5):387-388. Not about consequences of testing
- Lee Susie K, Lo Winson, Memeo Lorenzo et al. Duodenal histology in patients with celiac disease after treatment with a gluten-free diet. Gastrointest Endosc 2003;57(2):187-191. Not about consequences of testing
- Lejarraga H, Caino S, Salvador A et al. Normal growth velocity before diagnosis of celiac disease. J Pediatr Gastroenterol Nutr 2000;30(5):552-556. Not about consequences of testing
- Lembcke B, Grimm K, Lankisch P G. Raised fecal fat concentration is not a valid indicator of pancreatic steatorrhea. Am J Gastroenterol 1987;82(6):526-531. Not about consequences of testing
- Lenihan Genie O, Kirk William G. Conjoint supervision with beginning trainees: The model and its effectiveness. Clinical Supervisor 1992;10(1):35-50. Not about consequences of testing
- Leon F, Camarero C, Pena R et al. Anti-transglutaminase IgA ELISA: clinical potential and drawbacks in celiac disease diagnosis. Scand J Gastroenterol 2001;36(8):849-853. Not about consequences of testing
- Lepore L, Martelossi S, Pennesi M et al. Prevalence of celiac disease in patients with juvenile chronic arthritis. Eur J Pediatr 1996;129(2):311-313. Not about consequences of testing

- Lepore L, Pennesi M, Ventura A et al. Anti-alpha-gliadin antibodies are not predictive of celiac disease in juvenile chronic arthritis. *Acta Paediatr* 1993;82(6-7):569-573. Not about consequences of testing
- Lerman Caryn, Trock Bruce, Rimer Barbara K et al. Psychological side effects of breast cancer screening. *Health Psychol* 1991;10(4):259-267. Not about consequences of testing
- Lerner A. The race for the diagnostic autoantibody in celiac disease. And the winner is... *Isr Med Assoc J* 2000;2(2):82-83. Not about consequences of testing
- Leshowitz Barry, Meyers Jonathan M. Application of decision theory to DUI assessment. *Alcohol Clin Exp Res* 1996;20(7):1148-1152. Not about consequences of testing
- Levine A, Bujanover Y, Reif S et al. Comparison of assays for anti-endomysial and anti-transglutaminase antibodies for diagnosis of pediatric celiac disease. *Isr Med Assoc J* 2000;2(2):122-125. Not about consequences of testing
- Levine A, Lahav J, Zahavi I et al. Activated protein C resistance in pediatric inflammatory bowel disease. *J Pediatr Gastroenterol Nutr* 1998;26(2):172-174. Not about consequences of testing
- Levy-Gigi C, Mandelowitz N, Peled Y et al. Is the fat breath test effective in the diagnosis of fat malabsorption and pancreatic disease?. *Digestion* 1978;18(1-2):77-85. Not about consequences of testing
- Lewis C, Book L, Black J et al. Celiac disease and human leukocyte antigen genotype: Accuracy of diagnosis in self-diagnosed individuals, dosage effect, and sibling risk. *J Pediatr Gastroenterol Nutr* 2000;31(1):22-27. Not about consequences of testing
- Li Voon, Chong J S W, Leong K S et al. Is coeliac disease more prevalent in young adults with coexisting Type 1 diabetes mellitus and autoimmune thyroid disease compared with those with Type 1 diabetes mellitus alone?. *Diabet Med* 2002;19(4):334-337. Not about consequences of testing
- Lightdale C J, Winawer S J. Screening diagnosis and staging of esophageal cancer. *Semin Oncol* 1984;11(2):101-112. Not about consequences of testing
- Linaker B D, Calam J. Is jejunal biopsy valuable in the elderly?. *Age Ageing* 1978;7(4):244-245. Not about consequences of testing
- Lindgren S, Sjoberg K, Eriksson S. Unsuspected coeliac disease in chronic 'cryptogenic' liver disease. *Scand J Gastroenterol* 1994;29(7):661-664. Not about consequences of testing
- Lindh E, Ljunghall S, Larsson K et al. Screening for antibodies against gliadin in patients with osteoporosis. *J Intern Med* 1992;231(4):403-406. Not about consequences of testing
- Lindquist B L, Rogozinski T, Moi H et al. Endomysium and gliadin IgA antibodies in children with coeliac disease. *Scand J Gastroenterol* 1994;29(5):452-456. Not about consequences of testing
- Lindqvist U, Rudsander A, Bostrom A et al. IgA antibodies to gliadin and coeliac disease in psoriatic arthritis. *Rheumatology (Oxford)* 2002;41(1):31-37. Not about consequences of testing
- Littlewood J M. Coeliac disease in childhood. *Bailliere's Clinical Gastroenterology* 1995;9(2):295-327. Not about consequences of testing
- Liu E, Bao F, Barriga K et al. Fluctuating transglutaminase autoantibodies are related to histologic features of celiac disease. *Clin Gastroenterol Hepatol* 2003;1(5):356-362. Not about consequences of testing
- Ljungman G, Myrdal U. Compliance in teenagers with coeliac disease--a Swedish follow-up study. *Acta Paediatr* 1993;82(3):235-238. Not about consequences of testing
- Lloyd J K. Effects and treatment of malabsorption in childhood. *Proc Nutr Soc* 1972;31(1):61-66. Not about consequences of testing
- Lloyd-Still J D. Chronic diarrhea of childhood and the misuse of elimination diets. *Eur J Pediatr* 1979;95(1):10-13. Not about consequences of testing
- Lo Winson, Sano Kevin, Lebwohl Ben et al. Changing presentation of adult celiac disease. *Dig Dis Sci* 2003;48(2):395-398. Not about consequences of testing
- Lock R J, Pitcher M C, Unsworth D J. IgA anti-tissue transglutaminase as a diagnostic marker of gluten sensitive enteropathy. *Am J Clin Pathol* 1999;52(4):274-277. Not about consequences of testing
- Loft D E, Marsh M N, Crowe P T. Rectal gluten challenge and diagnosis of coeliac disease. *Lancet* 1990;335(8701):1293-1295. Not about consequences of testing
- Loft D E, Nwokolo C U, Ciclitira P J. The diagnosis of gluten sensitivity and coeliac disease--the two are not mutually inclusive. *Eur J Gastroenterol Hepatol* 1998;10(11):911-913. Not about consequences of testing

- Loft D E. The epidemiology and diagnosis of coeliac disease. *Eur J Gastroenterol Hepatol* 1993;5(2):69-72. Not about consequences of testing
- Logan A C, Wong C. Chronic fatigue syndrome: oxidative stress and dietary modifications. *Altern Med Rev* 2001;6(5):450-459. Not about consequences of testing
- Logan R F A, Howarth G F, West J et al. How often is a positive faecal occult blood test the result of coeliac disease?. *Eur J Gastroenterol Hepatol* 2003;15(10):1097-1100. Not about consequences of testing
- Logan R F, Rifkind E A, Turner I D et al. Mortality in celiac disease. *Gastroenterology* 1989;97(2):265-271. Not about consequences of testing
- Logan RF. Screening for coeliac disease--has the time come for mass screening? *Acta Paediatr* 1996; 412(Suppl):15-19. Unable to obtain article
- Longstreth George F, Drossman Douglas A. New developments in the diagnosis and treatment of irritable bowel syndrome. *Curr Gastroenterol Rep* 2002;4(5):427-434. Not about consequences of testing
- Lorini R, Scaramuzza A, Vitali L et al. Clinical aspects of coeliac disease in children with insulin-dependent diabetes mellitus. *J Pediatr Endocrinol Metab* 1996;9(Suppl 1):101-111. Not about consequences of testing
- Lorini R, Scotta M S, Cortona L et al. Celiac disease and type I (insulin-dependent) diabetes mellitus in childhood: follow-up study. *J Diabetes Complications* 1996;10(3):154-159. Not about consequences of testing
- Lubben James E, Chi Iris, Weiler Philip G. Differential health screening of the well elderly by gender and age: Appropriate care or bias?. *J Appl Gerontol* 1989;8(3):335-354. Not about consequences of testing
- Ludvigsson J F, Falth-Magnusson K, Ludvigsson J. Tissue transglutaminase auto-antibodies in cord blood from children to become celiacs. *Scand J Gastroenterol* 2001;36(12):1279-1283. Not about consequences of testing
- Lundberg A, Eriksson B O, Jansson G. Muscle abnormalities in coeliac disease: studies on gross motor development and muscle fibre composition, size and metabolic substrates. *Eur J Pediatr* 1979;130(2):93-103. Not about consequences of testing
- Luostarinen L K, Collin P O, Peraaho M J et al. Coeliac disease in patients with cerebellar ataxia of unknown origin. *Ann Med* 2001;33(6):445-449. Not about consequences of testing
- Luostarinen L, Dastidar P, Collin P et al. Association between coeliac disease, epilepsy and brain atrophy. *Eur Neurol* 2001;46(4):187-191. Not about consequences of testing
- Luostarinen L, Pirttila T, Collin P. Coeliac disease presenting with neurological disorders. *Eur Neurol* 1999;42(3):132-135. Not about consequences of testing
- Mackey J, Treem W R, Worley G et al. Frequency of celiac disease in individuals with Down syndrome in the United States. *Clin Pediatr (Phila)* 2001;40(5):249-252. Not about consequences of testing
- Mader R, Adawi M, Schonfeld S. Malabsorption in systemic lupus erythematosus. *Clin Exp Rheumatol* 1997;15(6):659-661. Not about consequences of testing
- Magazzu G, Bottari M, Tuccari G et al. Upper gastrointestinal endoscopy can be a reliable screening tool for celiac sprue in adults. *J Clin Gastroenterol* 1994;19(3):255-257. Not about consequences of testing
- Magazzu G, Bottaro G, Cataldo F et al. Increasing incidence of childhood celiac disease in Sicily: results of a multicenter study. *Acta Paediatr* 1994;83(10):1065-1069. Not about consequences of testing
- Magazzu G, Jacono G, Di Pasquale G et al. Reliability and usefulness of random fecal alpha 1-antitrypsin concentration: further simplification of the method. *J Pediatr Gastroenterol Nutr* 1985;4(3):402-407. Not about consequences of testing
- Magliocca F M, Bonamico M, Petrozza V et al. Usefulness of endoscopic small intestinal biopsies in children with coeliac disease. *Ital J Anat Embryol* 2001;106(2 Suppl 1):329-335. Not about consequences of testing
- Mahadeva S, Wyatt J I, Howdle P D. Is a raised intraepithelial lymphocyte count with normal duodenal villous architecture clinically relevant?. *Am J Clin Pathol* 2002;55(6):424-428. Not about consequences of testing
- Mahoney Diane F. One simple solution to hearing impairment. *Geriatr Nurs (Minneap)* 1987;8(5):242-245. Not about consequences of testing
- Maiuri L, Ciacci C, Vacca L et al. IL-15 drives the specific migration of CD94+ and TCR-gammadelta+ intraepithelial lymphocytes in organ cultures of treated celiac patients. *Am J Gastroenterol* 2001;96(1):150-156. Not about consequences of testing

- Maiuri L, Troncone R, Mayer M et al. In vitro activities of A-gliadin-related synthetic peptides: damaging effect on the atrophic coeliac mucosa and activation of mucosal immune response in the treated coeliac mucosa. *Scand J Gastroenterol* 1996;31(3):247-253. Not about consequences of testing
- Maki M, Aine L, Lipsanen V et al. Dental enamel defects in first-degree relatives of coeliac disease patients. *Lancet* 1991;337(8744):763-764. Not about consequences of testing
- Maki M, Hallstrom O, Huupponen T et al. Increased prevalence of coeliac disease in diabetes. *Arch Dis Child* 1984;59(8):739-742. Not about consequences of testing
- Maki M, Hallstrom O, Vesikari T et al. Evaluation of a serum IgA-class reticulín antibody test for the detection of childhood coeliac disease. *Eur J Pediatr* 1984;105(6):901-905. Not about consequences of testing
- Maki M, Huupponen T, Holm K et al. Seroconversion of reticulín autoantibodies predicts coeliac disease in insulin dependent diabetes mellitus. *Gut* 1995;36(2):239-242. Not about consequences of testing
- Maki M, Lahdeaho M L, Hallstrom O et al. Postpubertal gluten challenge in coeliac disease. *Arch Dis Child* 1989;64(11):1604-1607. Not about consequences of testing
- Maki M, Sulkanen S, Collin P. Antibodies in relation to gluten intake. *Dig Dis* 1998;16(6):330-332. Not about consequences of testing
- Maki Markku, Mustalahti Kirsi, Kokkonen Jorma et al. Prevalence of Celiac disease among children in Finland. *N Engl J Med* 2003;348(25):2517-2524. Not about consequences of testing
- Maldonado J E, Gregg J A, Green P A et al. Chronic idiopathic intestinal pseudo-obstruction. *Am J Med* 1970;49(2):203-212. Not about consequences of testing
- Mallas E, Terry J M, Asquith P et al. Serum lysozyme in inflammatory bowel and coeliac disease. *Am J Clin Pathol* 1976;29(7):598-600. Not about consequences of testing
- Malnick S D, Lurie Y, Beergabel M et al. Celiac disease. *Postgrad Med* 1997;101(6):239-244. Not about consequences of testing
- Mamon Joyce A, Shediak Mona C, Crosby Coral B et al. Development and implementation of an intervention to increase cervical cancer screening in inner-city women. *Int Q Community Health Educ* 1991;12(1):21-34. Not about consequences of testing
- Mandal A, Mayberry J. How common is coeliac disease in South America?. *Am J Gastroenterol* 2000;95(3):579-580. Not about consequences of testing
- Mantzaris G J, Tsirogianni A, Perivolioti E et al. Sensitivity and specificity of serum IgA class endomysial antibody in the diagnosis of coeliac disease. *Hell J Gastroenterol* 1996;8(4):308-311. Not about consequences of testing
- Mariani P, Viti M G, Montuori M et al. The gluten-free diet: a nutritional risk factor for adolescents with coeliac disease?. *J Pediatr Gastroenterol Nutr* 1998;27(5):519-523. Not about consequences of testing
- Marien P, Molla A M, Eggermont E. Coeliac disease in childhood. Problems in differential diagnosis. *Acta Gastroenterol Belg* 1986;49(4):387-392. Not about consequences of testing
- Marinello D, Rapa A, Osello R et al. Celiac disease screening: exploring the iceberg with salivary antigliadin antibodies. *J Pediatr Gastroenterol Nutr* 2001;32(2):227-228. Not about consequences of testing
- Marsh M N, Miller V. Studies of intestinal lymphoid tissue. VIII. Use of epithelial lymphocyte mitotic indices in differentiating untreated coeliac sprue mucosa from other childhood enteropathies. *J Pediatr Gastroenterol Nutr* 1985;4(6):931-935. Not about consequences of testing
- Marsh MN. Screening for latent gluten sensitivity: questions many, but answers few. *Eur J Gastroenterol Hepatol* 1996; 8(1):3-6. Unable to obtain article
- Marshall C M, Grunow J E. Emesis in infants as a consequence of feedings. *Semin Pediatr Surg* 1995;4(3):147-151. Not about consequences of testing
- Martelossi S, Torre G, Zanatta M et al. Dental enamel defects and screening for coeliac disease. *Pediatr Med Chir* 1996;18(6):579-581. Not about consequences of testing
- Martelossi S, Zanatta E, Del Santo E et al. Dental enamel defects and screening for coeliac disease. *Acta Paediatr* 1996;412(Suppl):47-48. Not about consequences of testing
- Martinelli P, Troncone R, Paparo F et al. Coeliac disease and unfavourable outcome of pregnancy. *Gut* 2000; 46(3):332-335. Not about consequences of testing

- Martini Silvia, Mengozzi Giulio, Aimo Giuseppe et al. Comparative evaluation of serologic tests for celiac disease diagnosis and follow-up. *Clin Chem* 2002;48(6 Pt 1):960-963. Not about consequences of testing
- Martucci S, Biagi F, Di Sabatino A et al. Coeliac disease. *Digestive and Liver Disease - Official Journal of the Italian Society of Gastroenterology and the Italian Association for the Study of the Liver* 2002;34(Suppl 2):150-153. Not about consequences of testing
- Masala S, Annibale B, Fiori R et al. DXA vs. QCT for subclinical celiac disease patients. *Acta Diabetol Lat* 2003;40(Suppl 1):S174-S176. Not about consequences of testing
- Mascart-Lemone F, Lambrechts A. Serology of coeliac disease: early diagnosis and therapeutic impact. *Acta Gastroenterol Belg* 1995;58(5-6):388-396. Not about consequences of testing
- Mascart-Lemone F, Van den, Broeck J et al. Serological aspects of coeliac disease. *Acta Gastroenterol Belg* 1992;55(2):200-208. Not about consequences of testing
- Mascart-Lemone F. Strategy for serological screening of celiac disease. *Gastroenterol Int* 1998;11(3):144-148. Not about consequences of testing
- Matek Z, Jungvirth-Hegedus M, Kolacek S. Epidemiology of coeliac disease in children in one Croatian county: possible factors that could affect the incidence of coeliac disease and adherence to a gluten-free diet (Part II). *Coll Antropol* 2000;24(2):397-404. Not about consequences of testing
- Mather K J, Meddings J B, Beck P L et al. Prevalence of IgA-antiendomysial antibody in asymptomatic low bone mineral density. *Am J Gastroenterol* 2001;96(1):120-125. Not about consequences of testing
- Mathus-Vliegen E M. Coeliac disease and lymphoma: current status. *Neth J Med* 1996;49(5):212-220. Not about consequences of testing
- Matteucci E, Cinapri V, Quilici S et al. Screening for coeliac disease in families of adults with Type 1 diabetes based on serological markers. *Diabetes Nutr Metab* 2001;14(1):37-42. Not about consequences of testing
- Mauk Gary W, White Karl R. Giving children a sound beginning: The promise of universal newborn hearing screening. *Volta Review* 1995;97(1):5-32. Not about consequences of testing
- Maurino E, Capizzano H, Niveloni S et al. Value of endoscopic markers in celiac disease. *Dig Dis Sci* 1993;38(11):2028-2033. Not about consequences of testing
- Mayer M, Greco L, Troncone R et al. Compliance of adolescents with coeliac disease with a gluten free diet. *Gut* 1991;32(8):881-885. Not about consequences of testing
- Mazure R M, Vazquez H, Gonzalez D et al. Early changes of body composition in asymptomatic celiac disease patients. *Am J Gastroenterol* 1996;91(4):726-730. Not about consequences of testing
- Mazzetti di, Pietralata Giorgetti G M, Gregori M et al. Subclinical coeliac disease. *Ital J Gastroenterol* 1992;24(6):352-354. Not about consequences of testing
- McBee J W. The sprue syndrome. *Tex Med* 1966;62(12):54-56. Not about consequences of testing
- McCaul Kevin D, Reid Patricia A, Rathge Richard W et al. Does concern about breast cancer inhibit or promote breast cancer screening?. *Basic Appl Soc Psych* 1996;18(2):183-194. Not about consequences of testing
- McCrae W M, Eastwood M A, Martin M R et al. Neglected coeliac disease. *Lancet* 1975;1(7900):187-190. Not about consequences of testing
- McElvaney N G, Duignan R, Fielding J F. Coeliac disease: clinical presentations, correlations of dietary compliance, symptomatic response and repeat biopsy findings. *Ulster Med J* 1992;61(2):134-138. Not about consequences of testing
- McIntyre A S, Ng D P, Smith J A et al. The endoscopic appearance of duodenal folds is predictive of untreated adult celiac disease. *Gastrointest Endosc* 1992;38(2):148-151. Not about consequences of testing
- McMillan S A, Haughton D J, Biggart J D et al. Predictive value for coeliac disease of antibodies to gliadin, endomysium, and jejunum in patients attending for jejunal biopsy. *BMJ* 1991;303(6811):1163-1165. Not about consequences of testing
- McMillan S A, Johnston S D, Watson R G et al. Dietary intake, smoking, and transient anti-gliadin antibodies. *Scand J Gastroenterol* 1998;33(5):499-503. Not about consequences of testing
- McNeish A S, Harms H K, Rey J et al. The diagnosis of coeliac disease. A commentary on the current practices of members of the European Society for Paediatric Gastroenterology and Nutrition (ESPGAN). *Arch Dis Child* 1979;54(10):783-786. Not about consequences of testing

- McNeish A S, Willoughby M L. Whole-blood folate as a screening test for coeliac disease in childhood. *Lancet* 1969;1(7592):442-443. Not about consequences of testing
- McNeish A S. Diagnosis of coeliac disease in retrospect. *Arch Dis Child* 1968;43(229):362-364. Not about consequences of testing
- McNicholl B, Egan-Mitchell B, Stevens F et al. Mucosal recovery in treated childhood celiac disease (gluten-sensitive enteropathy). *Eur J Pediatr* 1976;89(3):418-424. Not about consequences of testing
- McNicholl B. Childhood coeliac disease. *J Ir Med Assoc* 1970;63(391):1-7. Not about consequences of testing
- McNicholl B. Coeliac disease: ecology, life history and management. *Hum Nutr Appl Nutr* 1986;40(1):55-60. Not about consequences of testing
- McPhillips J. Understanding coeliac disease: symptoms and long-term risks. *Br J Nurs* 2000;9(8):479-483. Not about consequences of testing
- Mearin M L, Polanco I, Strober W et al. B-cell antigens recognized by maternal antisera in gluten-sensitive enteropathy. *J Clin Nutr Gastroenterol* 1986;1(1):30-36. Not about consequences of testing
- Meijer Jos W R, Wahab Peter J, Mulder Chris J J. Small intestinal biopsies in celiac disease: duodenal or jejunal?. *Virchows Arch* 2002;442(2):124-128. Not about consequences of testing
- Meloni G F, Dessole S, Vargiu N et al. The prevalence of coeliac disease in infertility. *Hum Reprod* 1999;14(11):2759-2761. Not about consequences of testing
- Meloni G F, Tomasi P A, Bertoncelli A et al. Prevalence of silent celiac disease in patients with autoimmune thyroiditis from Northern Sardinia. *J Endocrinol Invest* 2001;24(5):298-302. Not about consequences of testing
- Menendez-Corrada R. Current views on tropical sprue and a comparison to nontropical sprue. *Med Clin North Am* 1968;52(6):1367-1385. Not about consequences of testing
- Menni S, Cavalli R, Prampolini R et al. Dental enamel defects in children suffering from dermatitis herpetiformis and in their first degree relatives. *Eur J Pediatr Dermatol* 1996;6(1):33-38. Not about consequences of testing
- Messmann H. Squamous cell cancer of the oesophagus. *Baillieres Best Pract Res Clin Gastroenterol* 2001;15(2):249-265. Not about consequences of testing
- Metcalf J. Coeliac disease and primary biliary cirrhosis: a case for mutual screening. *Gut* 1998;42(1):9-10. Not about consequences of testing
- Meyer D, Stavropolous S, Diamond B et al. Osteoporosis in a north american adult population with celiac disease. *Am J Gastroenterol* 2001;96(1):112-119. Not about consequences of testing
- Micaron, Umek-Bradac caron, Dolins caron et al. Ultrasonographic assessment of celiac disease in children: Comparison with antiendomysium antibodies and histology. *Wien Klin Wochenschr Suppl* 2001;113(3):27-31. Not about consequences of testing
- Michaelsson G, Gerden B, Hagforsen E et al. Psoriasis patients with antibodies to gliadin can be improved by a gluten-free diet. *Br J Dermatol* 2000;142(1):44-51. Not about consequences of testing
- Michaelsson G, Gerden B, Ottosson M et al. Patients with psoriasis often have increased serum levels of IgA antibodies to gliadin. *Br J Dermatol* 1993;129(6):667-673. Not about consequences of testing
- Michaelsson G, Kraaz W, Gerden B et al. Increased lymphocyte infiltration in duodenal mucosa from patients with psoriasis and serum IgA antibodies to gliadin. *Br J Dermatol* 1995;133(6):896-904. Not about consequences of testing
- Michie S, Johnston M, Cockcroft A et al. Methods and impact of health screening for hospital staff. *Journal of Organizational Behavior* 1995;16(1):85-92. Not about consequences of testing
- Miller A, Paspaliaris W, Elliott P R et al. Anti-transglutaminase antibodies and coeliac disease. *Aust N Z J Med* 1999;29(2):239-242. Not about consequences of testing
- Mills P R, Horton P W, Watkinson G. The value of the 14C breath test in the assessment of fat absorption. *Scand J Gastroenterol* 1979;14(8):914-920. Not about consequences of testing
- Misra S, Ament M E. Diagnosis of coeliac sprue in 1994. *Gastroenterol Clin North Am* 1995;24(1):133-143. Not about consequences of testing
- Mitchell C J, Field H P, Simpson F G et al. Preliminary evaluation of a single-day tubeless test of pancreatic function. *Br Med J (Clin Res Ed)* 1981;282(6278):1751-1753. Not about consequences of testing

- Mohindra S, Yachha S K, Srivastava A et al. Coeliac disease in Indian children: assessment of clinical, nutritional and pathologic characteristics. *J Health Popul Nutr* 2001;19(3):204-208. Not about consequences of testing
- Molteni N, Bardella M T, Bianchi P A. Obstetric and gynecological problems in women with untreated celiac sprue. *J Clin Gastroenterol* 1990;12(1):37-39. Not about consequences of testing
- Monteiro E, Menezes M L, Magalhaes Ramalho P. Anti-reticulin antibodies: a diagnostic and monitoring test for childhood coeliac disease. *Scand J Gastroenterol* 1986;21(8):955-957. Not about consequences of testing
- Montgomery R D, Atiyeh M, Scales W R et al. Intestinal absorption in Saudi Arabia: an evaluation of the one hour blood xylose test. *Trans R Soc Trop Med Hyg* 1982;76(1):25-28. Not about consequences of testing
- Moodie S, Ciclitira P. Recent developments in celiac disease. *Curr Opin Gastroenterol* 2002;18(2):182-186. Not about consequences of testing
- Mooradian A D, Morley J E, Levine A S et al. Abnormal intestinal permeability to sugars in diabetes mellitus. *Diabetologia* 1986;29(4):221-224. Not about consequences of testing
- Morris M A, Ciclitira P J. Coeliac disease. *J R Coll Physicians Lond* 1997;31(6):614-618. Not about consequences of testing
- Mortimer P E, Stewart J S, Norman A P et al. Follow-up study of coeliac disease. *Br Med J* 1968;3(609):7-9. Not about consequences of testing
- Mottaleb A, Kapp F, Noguera E C et al. The Lundh test in the diagnosis of pancreatic disease: a review of five years' experience. *Gut* 1973;14(11):835-841. Not about consequences of testing
- Muench R, Ammann R. Fecal immunoreactive lipase: a new tubeless pancreatic function test. *Scand J Gastroenterol* 1992;27(4):289-294. Not about consequences of testing
- Mugica F, Castiella A, Otazua P et al. Prevalence of coeliac disease in unexplained chronic hypertransaminasemia. *Revista Espanola De Enfermedades Digestivas - Organo Oficial De La Sociedad Espanola De Patologia Digestiva* 2001;93(11):707-714. Not about consequences of testing
- Mulder C J, van Bergeijk J D, Jansen T L et al. Coeliac disease. Diagnostic and therapeutic pitfalls. *Scand J Gastroenterol* 1993;200(Suppl):42-47. Review article
- Mulder C J, Wahab P J, Moshaver B et al. Refractory coeliac disease: a window between coeliac disease and enteropathy associated T cell lymphoma. *Scand J Gastroenterol* 2000;232(Suppl):32-37. Not about consequences of testing
- Mulder C J. Do we have to screen the general population for coeliac disease instead of only patients with so-called associated diseases?. *Digestive and Liver Disease - Official Journal of the Italian Society of Gastroenterology and the Italian Association for the Study of the Liver* 2000;32(9):780-781. Not about consequences of testing
- Mulder Chris J J, Hadithi Mohammed M, Rostami Kamran et al. Coeliac disease--has the time come for routine mass screening? In 2002--2010--2020?. *Rom J Gastroenterol* 2002;11(3):179-182. Not about consequences of testing
- Munck L K, Kjeldsen J, Philipsen E et al. Incomplete remission with short-term prednisolone treatment in collagenous colitis: A randomized study. *Scand J Gastroenterol* 2003;38(6):606-610. Not about consequences of testing
- Murphy M S, Sood M, Johnson T. Use of the lactose H2 breath test to monitor mucosal healing in coeliac disease. *Acta Paediatr* 2002;91(2):141-144. Not about consequences of testing
- Murphy M S, Walker W A. Celiac disease. *Pediatr Rev* 1991;12(11):325-330. Not about consequences of testing
- Murray J A, Van Dyke C, Plevak M F et al. Trends in the identification and clinical features of celiac disease in a North American community, 1950-2001. *Clin Gastroenterol Hepatol* 2003;1(1):19-27. Not about consequences of testing
- Murray J A. It's not time to put away the biopsy forceps. *Am J Gastroenterol* 1999;94(4):869-871. Not about consequences of testing
- Murray J A. Serodiagnosis of celiac disease. *Clin Lab Med* 1997;17(3):445-464. Not about consequences of testing
- Murray J A. The widening spectrum of celiac disease. *Am J Clin Nutr* 1999;69(3):354-365. Not about consequences of testing
- Murray Michael, McMillan Carol. Health beliefs, locus of control, emotional control and women's cancer screening behaviour. *Br J Clin Psychol* 1993;32(1):87-100. Not about consequences of testing
- Mustadjab I, Soeparto P, Karyadi. Floating test (Rossipal) for screening patients with fat

- malabsorption. *Paediatr Indones* 1980;20(5-6):104-110. Not about consequences of testing
- Mustalahti K, Sulkanen S, Holopainen P et al. Coeliac disease among healthy members of multiple case coeliac disease families. *Scand J Gastroenterol* 2002;37(2):161-165. Not about consequences of testing
- Mustalahti Kirsii, Lohiniemi Susanna, Collin Pekka et al. Gluten-free diet and quality of life in patients with screen-detected celiac disease. *Eff Clin Pract* 2002;5(3):105-113. Not about consequences of testing
- Myhre A G, Aarsetoy H, Undlien D E et al. High frequency of coeliac disease among patients with autoimmune adrenocortical failure. *Scand J Gastroenterol* 2003;38(5):511-515. Not about consequences of testing
- Nathavitharana K A, Lloyd D R, Raafat F et al. Urinary mannitol: lactulose excretion ratios and jejunal mucosal structure. *Arch Dis Child* 1988;63(9):1054-1059. Not about consequences of testing
- Nehra V. New clinical issues in celiac disease. *Gastroenterol Clin North Am* 1998;27(2):453-465. Not about consequences of testing
- Neilson Aileen R, Whynes David K. Determinants of persistent compliance with screening for colorectal cancer. *Soc Sci Med* 1995;41(3):365-374. Not about consequences of testing
- Nelsen David A. Gluten-sensitive enteropathy (celiac disease): more common than you think. *Am Fam Physician* 2002;66(12):2259-2266. Not about consequences of testing
- Neuberger J. PBC and the gut: the villi atrophy, the plot thickens. *Gut* 1999;44(5):594-595. Not about consequences of testing
- Neuhausen Susan L, Feolo Mike, Camp Nicola J et al. Genome-wide linkage analysis for celiac disease in North American families. *Am J Med Genet* 2002;111(1):1-9. Not about consequences of testing
- Newcomer A D, Hofmann A F, DiMagno E P et al. Triolein breath test: a sensitive and specific test for fat malabsorption. *Gastroenterology* 1979;76(1):6-13. Not about consequences of testing
- Nielsen O H, Jacobsen O, Pedersen E R et al. Non-tropical sprue. Malignant diseases and mortality rate. *Scand J Gastroenterol* 1985;20(1):13-18. Not about consequences of testing
- Nieminen U, Kahri A, Savilahti E et al. Duodenal disaccharidase activities in the follow-up of villous atrophy in coeliac disease. *Scand J Gastroenterol* 2001;36(5):507-510. Not about consequences of testing
- Nieto A, Blanco Quiros A, Arranz E et al. Study of HLA-DQA1 alleles in celiac children. *Journal of Investigational Allergology & Clinical Immunology - Official Organ of the International Association of Asthmology (Interasma) and Sociedad Latinoamericana De Alergia E Inmunologia* 1995;5(4):209-215. Not about consequences of testing
- Nilsen E M, Johansen F E, Jahnsen F L et al. Cytokine profiles of cultured microvascular endothelial cells from the human intestine. *Gut* 1998;42(5):635-642. Not about consequences of testing
- Niveloni S, Fiorini A, Dezi R et al. Usefulness of videoduodenoscopy and vital dye staining as indicators of mucosal atrophy of celiac disease: assessment of interobserver agreement. *Gastrointest Endosc* 1998;47(3):223-229. Not about consequences of testing
- Niveloni S, Pedreira S, Sugai E et al. The natural history of gluten sensitivity: report of two new celiac disease patients resulting from a long-term follow-up of nonatrophic, first-degree relatives. *Am J Gastroenterol* 2000;95(2):463-468. Not about consequences of testing
- Norman Paul, Fitter Mike. Intention to attend a health screening appointment: Some implications for general practice. *Couns Psychol* 1989;2(3):261-272. Not about consequences of testing
- Norman Paul, Fitter Mike. Predicting attendance at health screening: Organizational factors and patients' health beliefs. *Couns Psychol* 1991;4(2-3):143-155. Not about consequences of testing
- Norman Paul. Applying the health belief model to the prediction of attendance at health checks in general practice. *Br J Clin Psychol* 1995;34(3):461-470. Not about consequences of testing
- Norman Paul. Social learning theory and the prediction of attendance at screening. *Psychol Health* 1991;5(3):231-239. Not about consequences of testing
- Nosari I, Casati A, Mora C et al. The use of IgA-antiendomysial antibody test for screening coeliac disease in insulin-dependent diabetes mellitus. *Diabetes Nutr Metab Clin Exp* 1996;9(5):267-272. Not about consequences of testing
- Not T, Citta A, Lucchesi A et al. Anti-endomysium antibody on human umbilical cord vein tissue: an inexpensive and sensitive diagnostic tool for the screening of coeliac disease. *Eur J Pediatr* 1997;156(8):616-618. Not about consequences of testing

- Not T, Horvath K, Hill I D et al. Celiac disease risk in the USA: high prevalence of antiendomysium antibodies in healthy blood donors. *Scand J Gastroenterol* 1998;33(5):494-498. Not about consequences of testing
- Not T, Tommasini A, Tonini G et al. Undiagnosed coeliac disease and risk of autoimmune disorders in subjects with Type I diabetes mellitus. *Diabetologia* 2001;44(2):151-155. Not about consequences of testing
- Not T, Ventura A, Peticarari S et al. A new, rapid, noninvasive screening test for celiac disease. *Eur J Pediatr* 1993;123(3):425-427. Not about consequences of testing
- Not Tarcisio, Faleschini Elena, Tommasini Alberto et al. Celiac disease in patients with sporadic and inherited cardiomyopathies and in their relatives. *Eur Heart J* 2003;24(15):1455-1461. Not about consequences of testing
- Nuti R, Martini G, Valenti R et al. Prevalence of undiagnosed coeliac syndrome in osteoporotic women. *J Intern Med* 2001;250(4):361-366. Not about consequences of testing
- Nyren O, Adami H O, Gustavsson S et al. The "epigastric distress syndrome". A possible disease entity identified by history and endoscopy in patients with nonulcer dyspepsia. *J Clin Gastroenterol* 1987;9(3):303-309. Not about consequences of testing
- Oberhuber G, Granditsch G, Vogelsang H. The histopathology of coeliac disease: time for a standardized report scheme for pathologists. *Eur J Gastroenterol Hepatol* 1999;11(10):1185-1194. Not about consequences of testing
- O'Brien C J, Saverymuttu S, Hodgson H J F et al. Coeliac disease, adenocarcinoma of jejunum and in situ squamous carcinoma of oesophagus. *J Clin Pathol* 1983;36(1):62-67. Not about consequences of testing
- O'Farrelly C, Feighery C, O'Briain D S et al. Humoral response to wheat protein in patients with coeliac disease and enteropathy associated T cell lymphoma. *Br Med J (Clin Res Ed)* 1986;293(6552):908-910. Not about consequences of testing
- O'Farrelly C, Kelly J, Hekkens W et al. Alpha gliadin antibody levels: a serological test for coeliac disease. *Br Med J (Clin Res Ed)* 1983;286(6383):2007-2010. Not about consequences of testing
- Olden Kevin W. Diagnosis of irritable bowel syndrome. *Gastroenterology* 2002;122(6):1701-1714. Not about consequences of testing
- O'Leary C, Walsh C H, Wieneke P et al. Coeliac disease and autoimmune Addison's disease: a clinical pitfall. *QJM* 2002;95(2):79-82. Not about consequences of testing
- O'Leary Clare, Quigley Eamonn M M. Small bowel bacterial overgrowth, celiac disease, and IBS: what are the real associations?. *Am J Gastroenterol* 2003;98(4):720-722. Not about consequences of testing
- Olsen W A. A practical approach to diagnosis of disorders of intestinal absorption. *N Engl J Med* 1971;285(24):1358-1361. Not about consequences of testing
- Onstad G R, Zieve L. Carotene absorption. A screening test for steatorrhea. *JAMA* 1972;221(7):677-679. Not about consequences of testing
- Osman A A, Gunnell T, Dietsch A et al. B cell epitopes of gliadin. *Clin Exp Immunol* 2000;121(2):248-254. Not about consequences of testing
- Osman A A, Uhlig H H, Valdes I et al. A monoclonal antibody that recognizes a potential coeliac-toxic repetitive pentapeptide epitope in gliadins. *Eur J Gastroenterol Hepatol* 2001;13(10):1189-1193. Not about consequences of testing
- Osman A A, Uhlig H, Thamm B et al. Use of the phage display technique for detection of epitopes recognized by polyclonal rabbit gliadin antibodies. *FEBS Lett* 1998;433(1-2):103-107. Not about consequences of testing
- Oxentenko Amy S, Grisolano Scott W, Murray Joseph A et al. The insensitivity of endoscopic markers in celiac disease. *Am J Gastroenterol* 2002;97(4):933-938. Not about consequences of testing
- Pacht A, Sinai N, Hornstein L et al. The diagnostic reliability of anti-endomysial antibody in celiac disease: the north Israel experience. *Isr J Med Sci* 1995;31(4):218-220. Not about consequences of testing
- Packer S, Rowlatt R J, Harries J T. Proceedings: Reappraisal of a past diagnosis of "coeliac disease". *Arch Dis Child* 1974;49(10):819. Not about consequences of testing
- Paerregaard A, Vilien M, Krasilnikoff P A et al. Supposed coeliac disease during childhood and its presentation 14-38 years later. *Scand J Gastroenterol* 1988;23(1):65-70. Not about consequences of testing
- Page S R, Lloyd C A, Hill P G et al. The prevalence of coeliac disease in adult diabetes mellitus. *QJM* 1994;87(10):631-637. Not about consequences of testing

- Paimela L, Kurki P, Leirisalo-Repo M et al. Gliadin immune reactivity in patients with rheumatoid arthritis. *Clin Exp Rheumatol* 1995;13(5):603-607. Not about consequences of testing
- Palosuo K, Alenius H, Varjonen E et al. A novel wheat gliadin as a cause of exercise-induced anaphylaxis. *J Allergy Clin Immunol* 1999;103(5 Pt 1):912-917. Not about consequences of testing
- Papadatou B, Crino A, Giannotti A et al. Antiendomysial and antigliadin antibodies in patients with Down syndrome. *Dev Brain Dysfunct* 1996;9(2-3):129-132. Not about consequences of testing
- Pare P, Douville P, Caron D et al. Adult celiac sprue: changes in the pattern of clinical recognition. *J Clin Gastroenterol* 1988;10(4):395-400. Not about consequences of testing
- Parker S L, Sussman G L, Kronld M. Dietary aspects of adverse reactions to foods in adults. *Cmaj - Canadian Medical Association Journal = Journal De L'association Medicale Canadienne* 1988;139(8):711-718. Not about consequences of testing
- Parnell N D, Ciclitira P J. Review article: coeliac disease and its management. *Aliment Pharmacol Ther* 1999;13(1):1-13. Not about consequences of testing
- Parnell N, Ciclitira P J. Celiac disease. *Curr Opin Gastroenterol* 1999;15(2):120-124. Not about consequences of testing
- Partanen J, Milner C, Campbell R D et al. HLA-linked heat-shock protein 70 (HSP70-2) gene polymorphism and celiac disease. *Tissue Antigens* 1993;41(1):15-19. Not about consequences of testing
- Patinen P, Bjorksten F, Malmstrom M et al. Salivary and serum IgA antigliadin antibodies in dermatitis herpetiformis. *Eur J Oral Sci* 1995;103(5):280-284. Not about consequences of testing
- Patterson R N, Johnston S D. Iron deficiency anaemia: are the British Society of Gastroenterology guidelines being adhered to?. *Postgrad Med J* 2003;79(930):226-228. Not about consequences of testing
- Patwari A K, Anand V K, Kapur Gaurav et al. Clinical and nutritional profile of children with celiac disease. *Indian Pediatr* 2003;40(4):337-342. Not about consequences of testing
- Pearce Allum B, Sinclair David, Duncan Hamish D et al. Use of the anti-endomysial antibody test to diagnose coeliac disease in clinical practice. *Clin Lab* 2002;48(5-6):319-325. Not about consequences of testing
- Pecsi G. Genetic associations and immunopathogenesis of coeliac disease. *Acta Physiol Hung* 2000;87(4):339-353. Not about consequences of testing
- Pellecchia M T, Ambrosio G, Salvatore E et al. Possible gluten sensitivity in multiple system atrophy. *Neurology* 2002;59(7):1114-1115. Not about consequences of testing
- Pellecchia M T, Scala R, Filla A et al. Idiopathic cerebellar ataxia associated with celiac disease: lack of distinctive neurological features. *J Neurol Neurosurg Psychiatry* 1999;66(1):32-35. Not about consequences of testing
- Pelli M A, Capodicasa E, De Angelis V et al. Sorbitol Hinf 2-breath test in celiac disease. Importance of early positivity. *Gastroenterol Int* 1998;11(2):65-68. Not about consequences of testing
- Pena A S, Garrote J A, Crusius J B. Advances in the immunogenetics of coeliac disease. Clues for understanding the pathogenesis and disease heterogeneity. *Scand J Gastroenterol* 1998;255(Suppl):56-58. Not about consequences of testing
- Pena A S, Wijmenga C. Genetic factors underlying gluten-sensitive enteropathy. *Curr Allergy Asthma Rep* 2001;1(6):526-533. Not about consequences of testing
- Pengiran Tengah D S N A, Wills A J, Holmes G K T. Neurological complications of coeliac disease. *Postgrad Med J* 2002;78(921):393-398. Not about consequences of testing
- Peracchi Maddalena, Trovato Cristina, Longhi Massimo et al. Tissue transglutaminase antibodies in patients with end-stage heart failure. *Am J Gastroenterol* 2002;97(11):2850-2854. Not about consequences of testing
- Perera D R, Weinstein W M, Rubin C E. Symposium on pathology of the gastrointestinal tract-Part II. Small intestinal biopsy. *Hum Pathol* 1975;6(2):157-217. Not about consequences of testing
- Perri F, Andriulli A. "Mixed" triglyceride breath test: methodological problems and clinical applications. *Rev Med Univ Navarra* 1998;42(2):99-103. Not about consequences of testing
- Peticarari S, Presani G, Trevisan M et al. Serum IgA and IgG antibodies to alpha-gliadin: comparison between two ELISA methods. *Ric Clin Lab* 1987;17(4):323-329. Not about consequences of testing
- Petaros P, Martelossi S, Tommasini A et al. Prevalence of autoimmune disorders in relatives of patients with celiac disease. *Dig Dis Sci*

- 2002;47(7):1427-1431. Not about consequences of testing
- Peters Ulrike, Askling Johan, Gridley Gloria et al. Causes of death in patients with celiac disease in a population-based Swedish cohort. *Arch Intern Med* 2003;163(13):1566-1572. Not about consequences of testing
- Petersen J, Drasche A, Raithel M et al. Analysis of genetic polymorphisms of enzymes involved in histamine metabolism. *Inflamm Res* 2003;52(Suppl 1):S69-S70. Not about consequences of testing
- Pham T H, Barr G D. Coeliac disease in adults. Presentation and management. *Aust Fam Physician* 1996;25(1):62-65. Not about consequences of testing
- Piattella L, Zamponi N, Cardinali C et al. Endocranial calcifications, infantile celiac disease, and epilepsy. *Child's Nervous System - Chns - Official Journal of the International Society for Pediatric Neurosurgery* 1993;9(3):172-175. Not about consequences of testing
- Picarelli A, di Tola M, Sabbatella L et al. Identification of a new coeliac disease subgroup: antiendomysial and anti-transglutaminase antibodies of IgG class in the absence of selective IgA deficiency. *J Intern Med* 2001;249(2):181-188. Not about consequences of testing
- Picarelli A, Sabbatella L, di Tola M et al. Celiac disease diagnosis in misdiagnosed children. *Pediatr Res* 2000;48(5):590-592. Not about consequences of testing
- Picarelli A, Sabbatella L, di Tola M et al. Forty-eight hours of biopsy culture improve the sensitivity of the in vitro gliadin challenge in the diagnosis of celiac disease. *Clin Chem* 2001;47(10):1841-1843. Not about consequences of testing
- Picarelli A, Triglione P, Mariani P et al. Use of a threshold serum level of anti-gliadin antibodies improves diagnostic efficiency of the test in adult coeliac disease but is unreliable as a screening test. *Ital J Gastroenterol* 1996;28(2):70-75. Not about consequences of testing
- Picarelli Antonio, Sabbatella Luigi, Di Tola et al. Antiendomysial antibody detection in fecal supernatants: in vivo proof that small bowel mucosa is the site of antiendomysial antibody production. *Am J Gastroenterol* 2002;97(1):95-98. Not about consequences of testing
- Pittschieler K, Gentili L, Niederhofer H. Onset of coeliac disease: A prospective longitudinal study. *Acta Paediatr* 2003;92(10):1149-1152. Not about consequences of testing
- Pittschieler K, Ladinser B. Coeliac disease: screened by a new strategy. *Acta Paediatr* 1996;412(Suppl):42-45. Not about consequences of testing
- Polvi A, Arranz E, Fernandez-Arquero M et al. HLA-DQ2-negative celiac disease in Finland and Spain. *Hum Immunol* 1998;59(3):169-175. Not about consequences of testing
- Polvi A, Garden O A, Elwood C M et al. Canine major histocompatibility complex genes DQA and DQB in Irish setter dogs. *Tissue Antigens* 1997;49(3 Pt 1):236-243. Not about consequences of testing
- Popat S, Hearle N, Bevan S et al. Mutational analysis of CD28 in coeliac disease. *Scand J Gastroenterol* 2002;37(5):536-539. Not about consequences of testing
- Popat S, Hearle N, Wixey J et al. Analysis of the CTLA4 gene in Swedish coeliac disease patients. *Scand J Gastroenterol* 2002;37(1):28-31. Not about consequences of testing
- Popat S, Hogberg L, McGuire S et al. Germline mutations in TGM2 do not contribute to coeliac disease susceptibility in the Swedish population. *Eur J Gastroenterol Hepatol* 2001;13(12):1477-1479. Not about consequences of testing
- Popper Stephen E, Morris Charles E, Briggs Jeffrey. Human subject screening: A dynamic process. *Aviat Space Environ Med* 1997;68(10):939-942. Not about consequences of testing
- Pozler O, Parizek J, Chylkova V et al. Immunological aspects of diagnosis of celiac sprue in children. *Sb Ved Pr Lek Fak Karlovy Univerzity Hradci Kralove* 1989;32(2):169-233. Not about consequences of testing
- Prasad S, Thomas P, Nicholas D S et al. Adult endomysial antibody-negative coeliac disease and cigarette smoking. *Eur J Gastroenterol Hepatol* 2001;13(6):667-671. Not about consequences of testing
- Pratesi R, Gandolfi L, Garcia S G et al. Prevalence of coeliac disease: Unexplained age-related variation in the same population. *Scand J Gastroenterol* 2003;38(7):747-750. Not about consequences of testing
- Pratesi R, Modelli I C, Martins R C et al. Celiac disease and epilepsy: Favorable outcome in a child with difficult to control seizures. *Acta Neurol Scand* 2003;108(4):290-293. Not about consequences of testing
- Pratesi Riccardo, Gandolfi Lenora, Martins Rita C et al. Is the prevalence of celiac disease increased among epileptic patients?. *Arq Neuropsiquiatr*

- 2003;61(2b):330-334. Not about consequences of testing
- Presani G, Perticarari S, Mangiarotti M A. Flow cytometric detection of anti-gliadin antibodies. *J Immunol Methods* 1989;119(2):197-202. Not about consequences of testing
- Pringle E M, Young W F, Mortimer P E et al. Coeliac syndrome. *Proc R Soc Med* 1968;61(8):775-776. Not about consequences of testing
- Pruessner H T. Detecting celiac disease in your patients. *Am Fam Physician* 1998;57(5):1023-34, 1039. Not about consequences of testing
- Pynnonen P, Isometsa E, Aalberg V et al. Is coeliac disease prevalent among adolescent psychiatric patients?. *Acta Paediatr* 2002;91(6):657-659. Not about consequences of testing
- Quaglino D, Corazza G R. Anaemias and other haematological changes due to disease of the alimentary tract. *Recenti Prog Med* 1993;84(9):624-633. Not about consequences of testing
- Quisel Anna, Gill James M, Westerberg Dyanne. Guideline for diagnosis of celiac disease. *Del Med J* 2002;74(5):229-241. Not about consequences of testing
- Ralston S H, Willocks L, Pitkeathly D A et al. High prevalence of unrecognized osteomalacia in hospital patients with rheumatoid arthritis. *Br J Rheumatol* 1988;27(3):202-205. Not about consequences of testing
- Rampton D S, Kasidas G P, Rose G A et al. Oxalate loading test. A screening test for steatorrhoea. *Gut* 1979;20(5):A456 Not about consequences of testing
- Rampton D S, McCullough A D, Sabbat J S et al. Screening for steatorrhoea with an oxalate loading test. *Br Med J (Clin Res Ed)* 1984;288(6428):1419 Not about consequences of testing
- Ransford Rupert A J, Hayes Mark, Palmer Martin et al. A controlled, prospective screening study of celiac disease presenting as iron deficiency anemia. *J Clin Gastroenterol* 2002;35(3):228-233. Not about consequences of testing
- Rasanen L, Lehto M, Turjanmaa K et al. Allergy to ingested cereals in atopic children. *Allergy* 1994;49(10):871-876. Not about consequences of testing
- Rasmusson C G, Eriksson M A. Celiac disease and mineralisation disturbances of permanent teeth. *International Journal of Paediatric Dentistry / the British Paedodontic Society and the International Association of Dentistry for Children* 2001;11(3):179-183. Not about consequences of testing
- Rastogi A, Malhotra V, Uppal B et al. Aetiology of chronic diarrhoea in tropical children. *Trop Gastroenterol* 1999;20(1):45-49. Not about consequences of testing
- Rautonen J, Rautonen N, Savilahti E. Antibodies to gliadin in children with coeliac disease. *Acta Paediatr Scand* 1991;80(12):1200-1206. Not about consequences of testing
- Ravaglia Giovanni, Forti Paola, Maioli Fabiola et al. Increased prevalence of coeliac disease in autoimmune thyroiditis is restricted to aged patients. *Exp Gerontol* 2003;38(5):589-595. Not about consequences of testing
- Ravelli A M, Tobanelli P, Minelli L et al. Endoscopic features of celiac disease in children. *Gastrointest Endosc* 2001;54(6):736-742. Not about consequences of testing
- Read M, O'Halloran ET, O'Sullivan C. Coeliac disease in adolescents/young adults: difficulties in monitoring. *Br J Biomed Sci* 2000; 57(3):217-221. Not about consequences of testing
- Reeves G E, Burns C, Hall S T et al. The measurement of IgA and IgG transglutaminase antibodies in celiac disease: a comparison with current diagnostic methods. *Pathology* 2000;32(3):181-185. Not about consequences of testing
- Rensch M J, Merenich J A, Lieberman M et al. Gluten-sensitive enteropathy in patients with insulin-dependent diabetes mellitus. *Ann Intern Med* 1996;124(6):564-567. Not about consequences of testing
- Ribes C, Pena A S, Pereda A et al. IGA gliadin antibodies, a useful screening test for coeliac disease in family members of children with coeliac disease. *J Clin Nutr Gastroenterol* 1991;6(4):196-202. Not about consequences of testing
- Ribes-Koninckx C, Alfonso P, Ortigosa L et al. A beta-turn rich oats peptide as an antigen in an ELISA method for the screening of coeliac disease in a paediatric population. *Eur J Clin Invest* 2000;30(8):702-708. Not about consequences of testing
- Riccabona M, Rossipal E. Sonographic findings in celiac disease. *J Pediatr Gastroenterol Nutr* 1993;17(2):198-200. Not about consequences of testing
- Rich E J, Christie D L. Anti-gliadin antibody panel and xylose absorption test in screening for celiac

- disease. *J Pediatr Gastroenterol Nutr* 1990;10(2):174-178. Not about consequences of testing
- Riestra S, Fernandez E, Rodrigo L et al. Prevalence of Coeliac disease in the general population of northern Spain. Strategies of serologic screening. *Scand J Gastroenterol* 2000;35(4):398-402. Not about consequences of testing
- Robert M E, Ament M E, Weinstein W M. The histologic spectrum and clinical outcome of refractory and unclassified sprue. *Am J Surg Pathol* 2000;24(5):676-687. Not about consequences of testing
- Roberts I M, Poturich C, Wald A. Utility of fecal fat concentrations as screening test in pancreatic insufficiency. *Dig Dis Sci* 1986;31(10):1021-1024. Not about consequences of testing
- Roberts R K, Campbell C B, Bryant S J et al. Xylose-1-14C absorption test: the use of urine, serum and breath analysis, and comparison with a colorimetric assay. *Aust N Z J Med* 1976;6(6):532-536. Not about consequences of testing
- Robins Robert S, Post Jerrold M. Choosing a healthy president. *Political Psychology* 1995;16(4):841-860. Not about consequences of testing
- Robinson T J, Nelson S D, Haire M. Jejunal villous changes associated with farmer's lung. *Postgrad Med J* 1981;57(673):697-701. Not about consequences of testing
- Robinson T J. Coeliac disease with farmers' lung. *Br Med J* 1976;1(6012):745-746. Not about consequences of testing
- Rogers A I. Steatorrhea. *Postgrad Med* 1971;50(6):123-129. Not about consequences of testing
- Roizen N J. Down syndrome: Progress in research. *Ment Retard Dev Disabil Res Rev* 2001;7(1):38-44. Not about consequences of testing
- Roizen Nancy J, Patterson David. Down Syndrome. *Lancet* 2003;361(9365):1281-1289. Not about consequences of testing
- Roldan M B, Barrio R, Roy G et al. Diagnostic value of serological markers for celiac disease in diabetic children and adolescents. *J Pediatr Endocrinol Metab* 1998;11(6):751-756. Not about consequences of testing
- Rolles C J, Kendall M J. One hour blood D-xylose as a screening test for malabsorption in infants and young children. *Arch Dis Child* 1972;47(254):673 Not about consequences of testing
- Rolles C J, Nutter S, Kendall M J et al. One-hour blood-xylose screening-test for coeliac disease in infants and young children. *Lancet* 1973;2(7837):1043-1045. Not about consequences of testing
- Rona R J, Tanner J M. Aetiology of idiopathic growth hormone deficiency in England and Wales. *Arch Dis Child* 1977;52(3):197-208. Not about consequences of testing
- Rosa Utiyama S R, Silva Kotze L M, Nishihara R M et al. Spectrum of autoantibodies in celiac patients and relatives. *Dig Dis Sci* 2001;46(12):2624-2630. Not about consequences of testing
- Rosenman Kenneth D, Gardiner Joseph, Swanson G et al. Use of skin-cancer prevention strategies among farmers and their spouses. *Am J Prev Med* 1995;11(5):342-347. Not about consequences of testing
- Rosenthal E, Golan D T, Benderly A. Immunofluorescent antiglutin antibody test. Titer and profile of gluten antibodies in celiac disease. *Am J Dis Child* 1984;138(7):659-662. Not about consequences of testing
- Rossipal E, Mlekusch W. Steatorrhea, a simple and rapid method of diagnosis. *Eur J Pediatr* 1976;122(4):297-302. Not about consequences of testing
- Rostami K, Kerckhaert J P, Tiemessen R et al. The relationship between anti-endomysium antibodies and villous atrophy in coeliac disease using both monkey and human substrate. *Eur J Gastroenterol Hepatol* 1999;11(4):439-442. Not about consequences of testing
- Rostami K, Kerckhaert J, Tiemessen R et al. Sensitivity of antiendomysium and antigliadin antibodies in untreated celiac disease: disappointing in clinical practice. *Am J Gastroenterol* 1999;94(4):888-894. Not about consequences of testing
- Rostami K, Kerckhaert J, von Blomberg B M et al. SAT and serology in adult coeliacs, seronegative coeliac disease seems a reality. *Neth J Med* 1998;53(1):15-19. Not about consequences of testing
- Rostami K, Mulder C J J, Stapell S et al. Autoantibodies and histogenesis of celiac disease. *Rom J Gastroenterol* 2003;12(2):101-106. Not about consequences of testing
- Rostami K, Mulder C J, van Overbeek F M et al. Should relatives of coeliacs with mild clinical complaints undergo a small-bowel biopsy despite negative serology?. *Eur J Gastroenterol Hepatol* 2000;12(1):51-55. Not about consequences of testing

- Rostami K, Mulder C J, Werre J M et al. High prevalence of celiac disease in apparently healthy blood donors suggests a high prevalence of undiagnosed celiac disease in the Dutch population. *Scand J Gastroenterol* 1999;34(3):276-279. Not about consequences of testing
- Rostami K, Steegers E A, Wong W Y et al. Coeliac disease and reproductive disorders: a neglected association. *Eur J Obstet Gynecol Reprod Biol* 2001;96(2):146-149. Not about consequences of testing
- Rubin C E, Brandborg L L, Phelps P C et al. Studies of celiac disease. I. The apparent identical and specific nature of the duodenal and proximal jejunal lesion in celiac disease and idiopathic sprue. *Gastroenterology* 1968;54(4):Suppl:800-802. Not about consequences of testing
- Rubin C E, Eidelman S, Weinstein W M. Sprue by any other name. *Gastroenterology* 1970;58(3):409-413. Not about consequences of testing
- Rude R K, Olerich M. Magnesium deficiency: possible role in osteoporosis associated with gluten-sensitive enteropathy. *Osteoporosis International - a Journal Established as Result of Cooperation Between the European Foundation for Osteoporosis and the National Osteoporosis Foundation of the Usa* 1996;6(6):453-461. Not about consequences of testing
- Rujner J, Brett-Chrusciel J, Piontek E et al. Negative results for serum antiendomysial antibodies do not exclude late developing jejunal mucosal atrophy - A case of latent coeliac disease in a 12-year old boy with type 1 diabetes mellitus. *Pediatr Wspolczesna* 2002;4(3):331-333. Not about consequences of testing
- Rujner J, Socha J, Barra E et al. Serum and salivary antigliadin antibodies and serum IgA anti-endomysium antibodies as a screening test for coeliac disease. *Acta Paediatr* 1996;85(7):814-817. Not about consequences of testing
- Rumbo M, Chirido F G, Ben R et al. Evaluation of coeliac disease serological markers in Down syndrome patients. *Digestive and Liver Disease - Official Journal of the Italian Society of Gastroenterology and the Italian Association for the Study of the Liver* 2002;34(2):116-121. Not about consequences of testing
- Ruokonen J. Reactions in the cytotoxic leucocyte test. *Allergol Immunopathol (Madr)* 1981;9(4):281-288. Not about consequences of testing
- Ruskone-Fourmesttraux A, Rambaud J C. Gastrointestinal lymphoma: prevention and treatment of early lesions. *Baillieres Best Pract Res Clin Gastroenterol* 2001;15(2):337-354. Not about consequences of testing
- Russo P A, Chartrand L J, Seidman E. Comparative analysis of serologic screening tests for the initial diagnosis of celiac disease. *Pediatrics* 1999;104(1 Pt 1):75-78. Not about consequences of testing
- Ryan J. Coeliac disease. Update 2000. *Aust Fam Physician* 2000;29(9):835-838. Not about consequences of testing
- Sacchetti L, Calcagno G, Ferrajolo A et al. Discrimination between celiac and other gastrointestinal disorders in childhood by rapid human lymphocyte antigen typing. *Clin Chem* 1998;44(8 Pt 1):1755-1757. Not about consequences of testing
- Sacchetti L, Ferrajolo A, Salerno G et al. Diagnostic value of various serum antibodies detected by diverse methods in childhood celiac disease. *Clin Chem* 1996;42(11):1838-1842. Not about consequences of testing
- Salmaso C, Ocmant A, Pesce G et al. Comparison of ELISA for tissue transglutaminase autoantibodies with antiendomysium antibodies in pediatric and adult patients with celiac disease. *Allergy* 2001;56(6):544-547. Not about consequences of testing
- Salur L, Uibo O, Talvik I et al. The high frequency of coeliac disease among children with neurological disorders. *European Journal of Neurology - the Official Journal of the European Federation of Neurological Societies* 2000;7(6):707-711. Not about consequences of testing
- Sandberg-Bennich S, Dahlquist G, Kallen B. Coeliac disease is associated with intrauterine growth and neonatal infections. *Acta Paediatr* 2002;91(1):30-33. Not about consequences of testing
- Sanders D S. Coeliac disease. *Br J Surg* 2002;89(6):676-677. Not about consequences of testing
- Sanders David S, Patel Dina, Stephenson Timothy J et al. A primary care cross-sectional study of undiagnosed adult coeliac disease. *Eur J Gastroenterol Hepatol* 2003;15(4):407-413. Not about consequences of testing
- Sardy M, Karpati S, Peterfy F et al. Comparison of a tissue transglutaminase ELISA with the endomysium antibody test in the diagnosis of gluten-sensitive enteropathy. *Z Gastroenterol* 2000;38(5):357-364. Not about consequences of testing
- Sardy M, Odenthal U, Karpati S et al. Recombinant human tissue transglutaminase ELISA for the diagnosis of gluten-sensitive enteropathy. *Clin Chem* 1999;45(12):2142-2149. Not about consequences of testing

- Sategna Guidetti C, Solerio E, Scaglione N et al. Duration of gluten exposure in adult coeliac disease does not correlate with the risk for autoimmune disorders. *Gut* 2001;49(4):502-505. Not about consequences of testing
- Sategna Guidetti, Carla Scaglione, Nadia Martini et al. Red cell distribution width as a marker of coeliac disease: a prospective study. *Eur J Gastroenterol Hepatol* 2002;14(2):177-181. Not about consequences of testing
- Sategna-Guidetti C, Bruno M, Mazza E et al. Autoimmune thyroid diseases and coeliac disease. *Eur J Gastroenterol Hepatol* 1998;10(11):927-931. Not about consequences of testing
- Sategna-Guidetti C, Grosso S B, Bruno M et al. Indirect immunofluorescence for of anti-jejunum antibody detection in celiac disease: comparison among different antigenic substrates. *Panminerva Med* 1998;40(4):261-263. Not about consequences of testing
- Sategna-Guidetti C, Grosso S B, Bruno M et al. Is human umbilical cord the most suitable substrate for the detection of endomysium antibodies in the screening and follow-up of coeliac disease?. *Eur J Gastroenterol Hepatol* 1997;9(7):657-660. Not about consequences of testing
- Sategna-Guidetti C, Grosso S, Bruno M et al. Comparison of serum anti-gliadin, anti-endomysium, and anti-jejunum antibodies in adult celiac sprue. *J Clin Gastroenterol* 1995;20(1):17-21. Not about consequences of testing
- Sategna-Guidetti C, Grosso S, Pulitano R et al. Celiac disease and insulin-dependent diabetes mellitus. Screening in an adult population. *Dig Dis Sci* 1994;39(8):1633-1637. Not about consequences of testing
- Sategna-Guidetti C, Grosso S. Changing pattern in adult coeliac disease: A 24-year survey. *Eur J Gastroenterol Hepatol* 1994;6(1):15-19. Not about consequences of testing
- Sategna-Guidetti C, Pulitano R, Grosso S et al. Serum IgA antiendomysium antibody titers as a marker of intestinal involvement and diet compliance in adult celiac sprue. *J Clin Gastroenterol* 1993;17(2):123-127. Not about consequences of testing
- Saukkonen T, Ilonen J, Akerblom H K et al. Prevalence of coeliac disease in siblings of patients with Type I diabetes is related to the prevalence of DQB1\*02 allele. *Diabetologia* 2001;44(8):1051-1053. Not about consequences of testing
- Saukkonen T, Savilahti E, Reijonen H et al. Coeliac disease: frequent occurrence after clinical onset of insulin-dependent diabetes mellitus. *Childhood Diabetes in Finland Study Group. Diabet Med* 1996;13(5):464-470. Not about consequences of testing
- Saverymattu S H, Sabbat J, Burke M et al. Impact of endoscopic duodenal biopsy on the detection of small intestinal villous atrophy. *Postgrad Med J* 1991;67(783):47-49. Not about consequences of testing
- Sblattero D, Berti I, Trevisiol C et al. Human recombinant tissue transglutaminase ELISA: an innovative diagnostic assay for celiac disease. *Am J Gastroenterol* 2000;95(5):1253-1257. Not about consequences of testing
- Schaad U, Gaze H, Hadorn B. Value of 1-hour blood-xylose test in diagnosis of childhood coeliac disease. *Arch Dis Child* 1978;53(5):420-422. Not about consequences of testing
- Schenk E A, Samloff I M, Klipstein F A. Morphologic characteristics of jejunal biopsy in celiac disease and tropical sprue. *Am J Pathol* 1965;47(5):765-781. Not about consequences of testing
- Schmitz J. Is celiac disease a lifelong disorder?. *Clin Invest Med* 1996;19(5):352-356. Not about consequences of testing
- Schober E, Bittmann B, Granditsch G et al. Screening by anti-endomysium antibody for celiac disease in diabetic children and adolescents in Austria. *J Pediatr Gastroenterol Nutr* 2000;30(4):391-396. Not about consequences of testing
- Schober Edith, Rami Birgit, Granditsch Gerhard et al. Coeliac disease in children and adolescents with type 1 diabetes mellitus: to screen or not, to treat or not?. *Horm Res* 2002;57(Suppl 1):97-100. Not about consequences of testing
- Schuppan D, Hahn E G. IgA anti-tissue transglutaminase: setting the stage for coeliac disease screening. *Eur J Gastroenterol Hepatol* 2001;13(6):635-637. Not about consequences of testing
- Schwartz F C M, Lunat M, Wolfsdorf J. Blood xylose concentrations in protein energy malnutrition. Relationship to serum albumin and jejunal histology. *S Afr Med J* 1974;48(58):2387-2390. Not about consequences of testing
- Scoglio Riccardo, Di Pasquale, Giuseppe Pagano et al. Is intestinal biopsy always needed for diagnosis of celiac disease?. *Am J Gastroenterol* 2003;98(6):1325-1331. Not about consequences of testing
- Scott E M, Scott B B. A strategy for osteoporosis in gastroenterology. *Eur J Gastroenterol Hepatol*

- 1998;10(8):689-696. Not about consequences of testing
- Scott H, Ek J, Havnen J et al. Serum antibodies to dietary antigens: a prospective study of the diagnostic usefulness in celiac disease of children. *J Pediatr Gastroenterol Nutr* 1990;11(2):215-220. Not about consequences of testing
- Scott H, Fausa O, Ek J et al. Measurements of serum IgA and IgG activities to dietary antigens. A prospective study of the diagnostic usefulness in adult coeliac disease. *Scand J Gastroenterol* 1990;25(3):287-292. Not about consequences of testing
- Seah P P, Fry L, Holborow E J et al. Antireticulin antibody: incidence and diagnostic significance. *Gut* 1973;14(4):311-315. Not about consequences of testing
- Sedghizadeh Parish P, Shuler Charles F, Allen Carl M et al. Celiac disease and recurrent aphthous stomatitis: a report and review of the literature. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod* 2002;94(4):474-478. Not about consequences of testing
- Seissler J, Boms S, Wohlrab U et al. Antibodies to human recombinant tissue transglutaminase measured by radioligand assay: evidence for high diagnostic sensitivity for celiac disease. *Horm Metab Res* 1999;31(6):375-379. Not about consequences of testing
- Selby W S, Gallagher N D. Malignancy in a 19-year experience of adult celiac disease. *Dig Dis Sci* 1979;24(9):684-688. Not about consequences of testing
- Selby W S, Painter D, Collins A et al. Persistent mucosal abnormalities in coeliac disease are not related to the ingestion of trace amounts of gluten. *Scand J Gastroenterol* 1999;34(9):909-914. Not about consequences of testing
- Selby W. Gluten enteropathy. *Aust Prescr* 2001;24(2):38-40+47. Not about consequences of testing
- Semrad C E. Bone mass and gastrointestinal disease. *Ann N Y Acad Sci* 2000;904:564-570. Not about consequences of testing
- Seraphin P, Mobarhan S. Mortality in patients with celiac disease. *Nutr Rev* 2002; 60(4):116-118. Not about consequences of testing
- Shafer R B, Onstad G R. Measurement of fat absorption utilizing <sup>131</sup>Iodine-triolein and nonabsorbable radioactive markers. *Am J Med Sci* 1975;269(3):327-331. Not about consequences of testing
- Shahbazkhani Bijan, Malekzadeh Reza, Sotoudeh Masoud et al. High prevalence of coeliac disease in apparently healthy Iranian blood donors. *Eur J Gastroenterol Hepatol* 2003;15(5):475-478. Not about consequences of testing
- Shaker J L, Brickner R C, Findling J W et al. Hypocalcemia and skeletal disease as presenting features of celiac disease. *Arch Intern Med* 1997;157(9):1013-1016. Not about consequences of testing
- Shamir Raanan, Lerner Aaron, Shinar Eilat et al. The use of a single serological marker underestimates the prevalence of celiac disease in Israel: a study of blood donors. *Am J Gastroenterol* 2002;97(10):2589-2594. Not about consequences of testing
- Sheldon W. Prognosis in early adult life of coeliac children treated with a gluten-free diet. *Br Med J* 1969; 2(654):401-404. Unable to obtain article
- Shelley J M, Irwig L M, Simpson J M et al. Evaluation of a mass-media-led campaign to increase Pap smear screening. *Health Educ Res* 1991;6(3):267-277. Not about consequences of testing
- Sher K S, Mayberry J F. Female fertility, obstetric and gynaecological history in coeliac disease. A case control study. *Digestion* 1994;55(4):243-246. Not about consequences of testing
- Sherr H P, Sasaki Y, Newman A et al. Detection of bacterial deconjugation of bile salts by a convenient breath-analysis technic. *N Engl J Med* 1971;285(12):656-661. Not about consequences of testing
- Shidrawi R G, Przemioslo R, Davies D R et al. Pitfalls in diagnosing coeliac disease. *Am J Clin Pathol* 1994;47(8):693-694. Not about consequences of testing
- Shmerling DH, Franckx J. Childhood celiac disease: a long-term analysis of relapses in 91 patients. *J Pediatr Gastroenterol Nutr* 1986; 5(4):565-569. Not about consequences of testing
- Signer E, Burgin-Wolff A, Berger R et al. Antibodies to gliadin as a screening test for coeliac disease. A prospective study. *Helv Paediatr Acta* 1979;34(1):41-52. Not about consequences of testing
- Signore A, Chianelli M, Annovazzi A et al. Imaging active lymphocytic infiltration in coeliac disease with iodine-123-interleukin-2 and the response to diet. *Eur J Nucl Med* 2000;27(1):18-24. Not about consequences of testing
- Sigurs N, Hattevig G, Kjellman B et al. Appearance of atopic disease in relation to serum IgE antibodies in

- children followed up from birth for 4 to 15 years. *J Allergy Clin Immunol* 1994;94(4):757-763. Not about consequences of testing
- Sikora K, Anand B S, Truelove S C et al. Stimulation of lymphocytes from patients with coeliac disease by a subfraction of gluten. *Lancet* 1976;2(7982):389-391. Not about consequences of testing
- Silano M, De Vincenzi M. In vitro screening of food peptides toxic for coeliac and other gluten-sensitive patients: a review. *Toxicology* 1999;132(2-3):99-110. Not about consequences of testing
- Simko V. Fecal fat microscopy. Acceptable predictive value in screening for steatorrhea. *Am J Gastroenterol* 1981;75(3):204-208. Not about consequences of testing
- Sinclair D, Pearce C B, Saas M S L et al. A comparative study of tissue transglutaminase antibodies and endomysium antibody immunofluorescence in routine clinical laboratory practice. *Ann Clin Biochem* 2003;40(4):411-416. Not about consequences of testing
- Sjoberg K, Alm R, Ivarsson S A et al. Prevalence and clinical significance of gliadin antibodies in healthy children and adults. *Scand J Gastroenterol* 1994;29(3):248-254. Not about consequences of testing
- Sjoberg K, Eriksson K F, Bredberg A et al. Screening for coeliac disease in adult insulin-dependent diabetes mellitus. *J Intern Med* 1998;243(2):133-140. Not about consequences of testing
- Sjoberg K, Eriksson S, Tenngart B et al. Factor XIII and tissue transglutaminase antibodies in coeliac and inflammatory bowel disease. *Autoimmunity* 2002;35(5):357-364. Not about consequences of testing
- Sjoberg K, Eriksson S. Regional differences in coeliac disease prevalence in Scandinavia?. *Scand J Gastroenterol* 1999;34(1):41-45. Not about consequences of testing
- Sjoberg K, Lindgren S, Eriksson S. Frequent occurrence of non-specific gliadin antibodies in chronic liver disease. Endomysial but not gliadin antibodies predict coeliac disease in patients with chronic liver disease. *Scand J Gastroenterol* 1997;32(11):1162-1167. Not about consequences of testing
- Sjoberg K, Wassmuth R, Reichstetter S et al. Gliadin antibodies in adult insulin-dependent diabetes--autoimmune and immunogenetic correlates. *Autoimmunity* 2000;32(4):217-228. Not about consequences of testing
- Skala I, Kronl A, Vulterinova M et al. Composition of feces in steatorrhea of different etiology: mutual relationship between the volume of feces, water, dry matter, nitrogen, and fat content. *Am J Dig Dis* 1968;13(3):204-212. Not about consequences of testing
- Skovbjerg H, Sjostrom H, Noren O B. Coeliac disease - A diagnostic and scientific challenge. *Ugeskr Laeg* 2002;164(25):3329-3333. Not about consequences of testing
- Smecuol E, Vazquez H, Sugai E et al. Sugar tests detect celiac disease among first-degree relatives. *Am J Gastroenterol* 1999;94(12):3547-3552. Not about consequences of testing
- Smith S E, Littlewood J M. The two-film barium meal in the exclusion of coeliac disease. *Clin Radiol* 1977;28(6):629-634. Not about consequences of testing
- Smith S. Jejunal biopsy--seeking an alternative. *Paediatr Nurs* 1996;8(4):17-19. Not about consequences of testing
- Sobel Judith, Curtin Ann, Fell Deborah. The Oregon Breast Cancer Detection and Awareness Project: The legacy of a mammogram screening campaign. *Health Values* 1991;15(1):3-8. Not about consequences of testing
- Sollid L M, Scott H. New tool to predict celiac disease on its way to the clinics. *Gastroenterology* 1998;115(6):1584-1586. Not about consequences of testing
- Somech R, Spirer Z. Celiac disease: extraintestinal manifestations, associated diseases, and complications. *Adv Pediatr* 2002; 49:191-201. Not about consequences of testing
- Sorell L, Garrote J A, Acevedo B et al. One-step immunochromatographic assay for screening of coeliac disease. *Lancet* 2002;359(9310):945-946. Not about consequences of testing
- Sorensen H T, Fonager K. Risk estimation of disorders associated with coeliac disease. A 16-year Danish nationwide follow-up study based on hospital discharge data. Implications for screening. *Int J Risk Saf Med* 1996;8(2):137-140. Not about consequences of testing
- Soresi M, Amplo M, Agliastro R et al. Screening for autoantibodies to tissue transglutaminase reveals a low prevalence of celiac disease in blood donors with cryptogenic hypertransaminasemia. *Digestion* 2001;64(2):87-91. Not about consequences of testing
- Spiekerkoetter U, Seissler J, Wendel U. General screening for celiac disease is advisable in children

- with type 1 diabetes. *Horm Metab Res* 2002;34(4):192-195. Not about consequences of testing
- Stahlberg M R, Savilahti E, Viander M. Antibodies to gliadin by ELISA as a screening test for childhood celiac disease. *J Pediatr Gastroenterol Nutr* 1986;5(5):726-729. Not about consequences of testing
- Stazi A V, Mantovani A. A risk factor for female fertility and pregnancy: celiac disease. *Gynecological Endocrinology - the Official Journal of the International Society of Gynecological Endocrinology* 2000;14(6):454-463. Not about consequences of testing
- Stenhammar L, Ascher H, Danielsson L et al. Small bowel biopsy in Swedish paediatric clinics. *Acta Paediatr* 2002;91(10):1126-1129. Not about consequences of testing
- Stenhammar L. Transient gastro-intestinal disorders during infancy and early childhood. A follow-up study with special reference to coeliac disease. *Acta Paediatr Scand* 1981;70(3):383-387. Not about consequences of testing
- Stern M, Ciclitira P J, van Eckert R et al. Analysis and clinical effects of gluten in coeliac disease. *Eur J Gastroenterol Hepatol* 2001;13(6):741-747. Not about consequences of testing
- Stern M, Fischer K, Gruettner R. Gliadin antibodies in coeliac disease. *Acta Paediatr Belg* 1977;30(4):252 Not about consequences of testing
- Stern M, Teuscher M, Wechmann T. Serological screening for coeliac disease: methodological standards and quality control. *Acta Paediatr* 1996;412(Suppl):49-51. Not about consequences of testing
- Stern M. Comparative evaluation of serologic tests for celiac disease: a European initiative toward standardization. *J Pediatr Gastroenterol Nutr* 2000;31(5):513-519. Not about consequences of testing
- Stevens F M, Lloyd R S, Geraghty S M et al. Schizophrenia and coeliac disease--the nature of the relationship. *Psychol Med* 1977;7(2):259-263. Not about consequences of testing
- Stevens F M, Lloyd R, Egan-Mitchell B et al. Reticulin antibodies in patients with coeliac disease and their relatives. *Gut* 1975;16(8):598-602. Not about consequences of testing
- Stewart J. Child coeliacs in adult life. *Ir Med J* 1974;67(15):411-414. Not about consequences of testing
- Stockbrugger R W, Armbrrecht U, Muller E et al. Determination of faecal chymotrypsin concentration and 72-hour faecal chymotrypsin output in the detection of pancreatic steatorrhoea. *Scand J Gastroenterol* 1991;188(Suppl):13-19. Not about consequences of testing
- Stocker W, Otte M, Ulrich S et al. Autoimmunity to pancreatic juice in Crohn's disease. Results of an autoantibody screening in patients with chronic inflammatory bowel disease. *Scand J Gastroenterol* 1987;139(Suppl):41-52. Not about consequences of testing
- Storm W. Celiac disease and alopecia areata in a child with Down Syndrome. *J Intellect Disabil Res* 2000;44(5):621-623. Not about consequences of testing
- Storsrud S, Olsson M, Arvidsson Lenner R et al. Adult coeliac patients do tolerate large amounts of oats. *Eur J Clin Nutr* 2003;57(1):163-169. Not about consequences of testing
- Storsrud Stine, Hulthen Lena R, Lenner Ragnhild A. Beneficial effects of oats in the gluten-free diet of adults with special reference to nutrient status, symptoms and subjective experiences. *Br J Nutr* 2003;90(1):101-107. Not about consequences of testing
- Straughan P T, Seow A. Barriers to mammography among Chinese women in Singapore: A focus group approach. *Health Educ Res* 1995;10(4):431-441. Not about consequences of testing
- Strobel S, Brydon W G, Ferguson A. Cellobiose/mannitol sugar permeability test complements biopsy histopathology in clinical investigation of the jejunum. *Gut* 1984;25(11):1241-1246. Not about consequences of testing
- Stulik J, Hernychova L, Porkertova S et al. Identification of new celiac disease autoantigens using proteomic analysis. *Proteomics* 2003;3(6):951-956. Not about consequences of testing
- Sugai E, Selvaggio G, Vazquez H et al. Tissue transglutaminase antibodies in celiac disease: assessment of a commercial kit. *Am J Gastroenterol* 2000;95(9):2318-2322. Not about consequences of testing
- Sugai E, Srur G, Vazquez H et al. Steatocrit: a reliable semiquantitative method for detection of steatorrhea. *J Clin Gastroenterol* 1994;19(3):206-209. Not about consequences of testing
- Sugai Emilia, Chernavsky Alejandra, Pedreira Silvia et al. Bone-specific antibodies in sera from patients with celiac disease: characterization and implications

- in osteoporosis. *J Clin Immunol* 2002;22(6):353-362. Not about consequences of testing
- Suharjono. Intestinal biopsy and coeliac disease. *Paediatr Indones* 1971;11(3):116-134. Not about consequences of testing
- Sulkanen S, Halttunen T, Laurila K et al. Tissue transglutaminase autoantibody enzyme-linked immunosorbent assay in detecting celiac disease. *Gastroenterology* 1998;115(6):1322-1328. Not about consequences of testing
- Sumnik Z, Kolouskova S, Cinek O et al. HLA-DQA1\*05-DQB1\*0201 positivity predisposes to coeliac disease in Czech diabetic children. *Acta Paediatr* 2000;89(12):1426-1430. Not about consequences of testing
- Swain V A, Young W F, Pringle E M. Hypertrophy of the appendices epiploicae and lipomatous polyposis of the colon. *Gut* 1969;10(7):587-589. Not about consequences of testing
- Swinson C M, Slavin G, Coles E C et al. Coeliac disease and malignancy. *Lancet* 1983;1(8316):111-115. Not about consequences of testing
- Szaflarska-Szczepanik A, Czerwionka-Szaflarska M. The frequency of occurrence and clinical picture of celiac disease in the parents of children with the disease. *Medical Science Monitor - International Medical Journal of Experimental and Clinical Research* 2001;7(5):971-976. Not about consequences of testing
- Tai V, Crowe M, O'Keefe S. Celiac disease in older people. *J Am Geriatr Soc* 2000;48(12):1690-1696. Not about consequences of testing
- Talal A H, Murray J A, Goeken J A et al. Celiac disease in an adult population with insulin-dependent diabetes mellitus: use of endomysial antibody testing. *Am J Gastroenterol* 1997;92(8):1280-1284. Not about consequences of testing
- Talstad I, Fretheim B, Myren J et al. Graded gastrectomy for duodenal ulcer -- a five-year prospective study. *Scand J Gastroenterol* 1975;33(Suppl):1-27. Not about consequences of testing
- Tandon B N, Iyenger K P, Deo M G et al. A study of "sprue syndrome in adults" in northern India. *J Assoc Physicians India* 1966;14(4):197-202. Not about consequences of testing
- Tandon B N, Tandon R K, Satpathy B K et al. Mechanism of malabsorption in giardiasis: a study of bacterial flora and bile salt deconjugation in upper jejunum. *Gut* 1977;18(3):176-181. Not about consequences of testing
- Tarmure Simina, Grigorescu Mircea, Cristea Anca et al. Antiendomysial and antitissue transglutaminase antibodies in gluten-induced enteropathy. *Rom J Gastroenterol* 2002;11(2):91-95. Not about consequences of testing
- Taylor C J. Predictive value of intraepithelial lymphocyte counts in childhood coeliac disease. *J Pediatr Gastroenterol Nutr* 1988;7(4):532-536. Not about consequences of testing
- Tesei N, Sugai E, Vazquez H et al. Antibodies to human recombinant tissue transglutaminase may detect coeliac disease patients undiagnosed by endomysial antibodies. *Aliment Pharmacol Ther* 2003;17(11):1415-1423. Not about consequences of testing
- Thapa B R. Celiac disease in India. *Indian J Pediatr* 1999;66(1 Suppl):S16-S20. Not about consequences of testing
- Thomas A G, Phillips A D, Walker-Smith J A. The value of proximal small intestinal biopsy in the differential diagnosis of chronic diarrhoea. *Arch Dis Child* 1992;67(6):741-743. Not about consequences of testing
- Thomas D W, Sinatra F R, Merritt R J. Random fecal alpha-1-antitrypsin concentration in children with gastrointestinal disease. *Gastroenterology* 1981;80(4):776-782. Not about consequences of testing
- Thomas P D, Forbes A, Green J et al. Guidelines for the investigation of chronic diarrhoea, 2nd edition. *Gut* 2003;52(Suppl 5):v1-v15. Not about consequences of testing
- Thompson H. Necropsy studies on adult coeliac disease. *Am J Clin Pathol* 1974;27(9):710-721. Not about consequences of testing
- Thompson J B, Su C K, Ringrose R E et al. Fecal triglycerides. II. Digestive versus absorptive steatorrhea. *J Lab Clin Med* 1969;73(3):521-530. Not about consequences of testing
- Thornquist H, Jacobsen GS, Dahl LB et al. Coeliac disease and gluten-free diet: a following-up study of fifteen young adults. *Ann Nutr Metab* 1993; 37(6):295-301. Not about consequences of testing
- Tonutti E, Visentini D, Bizzaro N et al. The role of antitissue transglutaminase assay for the diagnosis and monitoring of coeliac disease: a French-Italian multicentre study. *Am J Clin Pathol* 2003;56(5):389-393. Not about consequences of testing
- Tovey F I, Godfrey J E, Lewin M R. A gastrectomy population: 25-30 years on. *Postgrad Med J*

- 1990;66(776):450-456. Not about consequences of testing
- Townley R R, Anderson C M. Coeliac disease. A review. *Ergeb Inn Med Kinderheilkd* 1967;261-44. Not about consequences of testing
- Tran M, Forget P, Van den et al. Improved steatocrit results obtained by acidification of fecal homogenates are due to improved fat extraction. *J Pediatr Gastroenterol Nutr* 1996;22(2):157-160. Not about consequences of testing
- Tran M, Forget P, Van den et al. The acid steatocrit: a much improved method. *J Pediatr Gastroenterol Nutr* 1994;19(3):299-303. Not about consequences of testing
- Trevisiol C, Not T, Berti I et al. Screening for coeliac disease in healthy blood donors at two immunotransfusion centres in north-east Italy. *Ital J Gastroenterol Hepatol* 1999;31(7):584-586. Not about consequences of testing
- Trevisiol C, Ventura A, Baldas V et al. A reliable screening procedure for coeliac disease in clinical practice. *Scand J Gastroenterol* 2002;37(6):679-684. Not about consequences of testing
- Trewby P N, Chipping P M, Palmer S J et al. Splenic atrophy in adult coeliac disease: is it reversible?. *Gut* 1981;22(8):628-632. Not about consequences of testing
- Trier J S. Diagnostic value of peroral biopsy of the proximal small intestine. *N Engl J Med* 1971;285(26):1470-1473. Not about consequences of testing
- Troncone R, Greco L, Auricchio S. Gluten-sensitive enteropathy. *Pediatr Clin North Am* 1996;43(2):355-373. Not about consequences of testing
- Troncone R, Maurano F, Rossi M et al. IgA antibodies to tissue transglutaminase: An effective diagnostic test for celiac disease. *Eur J Pediatr* 1999;134(2):166-171. Not about consequences of testing
- Troncone R, Starita A, Coletta S et al. Antigliadin antibody, D-xylose, and cellobiose/mannitol permeability tests as indicators of mucosal damage in children with coeliac disease. *Scand J Gastroenterol* 1992;27(8):703-706. Not about consequences of testing
- Tucker N T, Barghuthy F S, Prihoda T J et al. Antigliadin antibodies detected by enzyme-linked immunosorbent assay as a marker of childhood celiac disease. *Eur J Pediatr* 1988;113(2):286-289. Not about consequences of testing
- Tumer L, Hasanoglu A, Aybay C. Endomysium antibodies in the diagnosis of celiac disease in short-statured children with no gastrointestinal symptoms. *Pediatr Int* 2001;43(1):71-73. Not about consequences of testing
- Tursi A, Brandimarte G, Giorgetti G et al. Low prevalence of antigliadin and anti-endomysium antibodies in subclinical/silent celiac disease. *Am J Gastroenterol* 2001;96(5):1507-1510. Not about consequences of testing
- Tursi A, Brandimarte G, Giorgetti G M et al. Effectiveness of the sorbitol HSUB2 breath test in detecting histological damage among relatives of coeliacs. *Scand J Gastroenterol* 2003;38(7):727-731. Not about consequences of testing
- Tursi A, Brandimarte G, Giorgetti G M. Sorbitol H2-breath test versus anti-endomysium antibodies for the diagnosis of subclinical/silent coeliac disease. *Scand J Gastroenterol* 2001;36(11):1170-1172. Not about consequences of testing
- Tursi A, Giorgetti G, Brandimarte G et al. Prevalence and clinical presentation of subclinical/silent celiac disease in adults: an analysis on a 12-year observation. *Hepatogastroenterology* 2001;48(38):462-464. Not about consequences of testing
- Tursi Antonio, Brandimarte Giovanni, Giorgetti Gian et al. Prevalence of antitissue transglutaminase antibodies in different degrees of intestinal damage in celiac disease. *J Clin Gastroenterol* 2003;36(3):219-221. Not about consequences of testing
- Tursi Antonio, Brandimarte Giovanni. The symptomatic and histologic response to a gluten-free diet in patients with borderline enteropathy. *J Clin Gastroenterol* 2003;36(1):13-17. Not about consequences of testing
- Uibo O, Lambrechts A, Mascart-Lemone F. Human oesophagus: a convenient antigenic substrate for the determination of anti-endomysium antibodies in the serological diagnosis of coeliac disease. *Eur J Gastroenterol Hepatol* 1995;7(1):37-40. Not about consequences of testing
- Uibo O, Maaros H I. Hospital screening of coeliac disease in Estonian children by anti-gliadin antibodies of IgA class. *Acta Paediatr* 1993;82(3):233-234. Not about consequences of testing
- Uibo O, Metskula K, Kukk T et al. Results of coeliac disease screening in Estonia in 1990-1994. *Acta Paediatr* 1996;412(Suppl):39-41. Not about consequences of testing
- Uibo O, Uibo R, Kleimola V et al. Serum IgA anti-gliadin antibodies in an adult population sample. High prevalence without celiac disease. *Dig Dis Sci*

- 1993;38(11):2034-2037. Not about consequences of testing
- Uibo O. Childhood celiac disease in Estonia: efficacy of the IgA-class antigliadin antibody test in the search for new cases. *J Pediatr Gastroenterol Nutr* 1994;18(1):53-55. Not about consequences of testing
- Uil J J, van Elburg R M, Janssens P M et al. Sensitivity of a hyperosmolar or "low"-osmolar test solution for sugar absorption in recognizing small intestinal mucosal damage in coeliac disease. *Digestive and Liver Disease - Official Journal of the Italian Society of Gastroenterology and the Italian Association for the Study of the Liver* 2000;32(3):195-200. Not about consequences of testing
- Uil J J, van Elburg R M, van Overbeek F M et al. Clinical implications of the sugar absorption test: intestinal permeability test to assess mucosal barrier function. *Scand J Gastroenterol* 1997;233(Suppl):70-78. Not about consequences of testing
- Uil J J, van Elburg R M, van Overbeek F M et al. Follow-up of treated coeliac patients: sugar absorption test and intestinal biopsies compared. *Eur J Gastroenterol Hepatol* 1996;8(3):219-223. Not about consequences of testing
- Unsworth D J, Brown D L. Serological screening suggests that adult coeliac disease is underdiagnosed in the UK and increases the incidence by up to 12%. *Gut* 1994;35(1):61-64. Not about consequences of testing
- Unsworth D J, Johnson G D, Haffenden G et al. Binding of wheat gliadin in vitro to reticulum in normal and dermatitis herpetiformis skin. *J Invest Dermatol* 1981;76(2):88-93. Not about consequences of testing
- Unsworth D J, Lock R J, Harvey R F. Improving the diagnosis of coeliac disease in anaemic women. *Br J Haematol* 2000;111(3):898-901. Not about consequences of testing
- Usai P, Boi M F, Piga M et al. Adult celiac disease is frequently associated with sacroiliitis. *Dig Dis Sci* 1995;40(9):1906-1908. Not about consequences of testing
- Usai P, Minerba L, Marini B et al. Case control study on health-related quality of life in adult coeliac disease. *Digestive and Liver Disease - Official Journal of the Italian Society of Gastroenterology and the Italian Association for the Study of the Liver* 2002;34(8):547-552. Not about consequences of testing
- Usselmann B, Loft D E. An easy test for coeliac disease using human umbilical vein endothelial cells. *Eur J Gastroenterol Hepatol* 1996;8(10):947-950. Not about consequences of testing
- Ussher R, Yeong M L, Stace N. Coeliac disease: incidence and prevalence in Wellington 1985-92. *N Z Med J* 1994;107(978):195-197. Not about consequences of testing
- Vahedi Kouroche, Mascart Françoise, Mary Jean et al. Reliability of antitransglutaminase antibodies as predictors of gluten-free diet compliance in adult celiac disease. *Am J Gastroenterol* 2003;98(5):1079-1087. Not about consequences of testing
- Valdimarsson T, Franzen L, Grodzinsky E et al. Is small bowel biopsy necessary in adults with suspected celiac disease and IgA anti-endomysium antibodies? 100% positive predictive value for celiac disease in adults. *Dig Dis Sci* 1996;41(1):83-87. Not about consequences of testing
- Valdimarsson T, Toss G, Ross I et al. Bone mineral density in coeliac disease. *Scand J Gastroenterol* 1994;29(5):457-461. Not about consequences of testing
- Valentini R A, Andreani M L, Corazza G R et al. IgA endomysium antibody: a valuable tool in the screening of coeliac disease but not its follow-up. *Ital J Gastroenterol* 1994;26(6):279-282. Not about consequences of testing
- Valentino R, Savastano S, Tommaselli A P et al. Prevalence of coeliac disease in patients with thyroid autoimmunity. *Horm Res* 1999;51(3):124-127. Not about consequences of testing
- Valletta E A, Trevisiol D, Mastella G. IgA anti-gliadin antibodies in the monitoring of gluten challenge in celiac disease. *J Pediatr Gastroenterol Nutr* 1990;10(2):169-173. Not about consequences of testing
- Van Belzen M J, Meijer J W R, Sandkuijl L A et al. A major non-HLA locus in celiac disease maps to chromosome 19. *Gastroenterology* 2003;125(4):1032-1041. Not about consequences of testing
- van den, Bosch H C, Tham R T et al. Celiac disease: small-bowel enteroclysis findings in adult patients treated with a gluten-free diet. *Radiology* 1996;201(3):803-808. Not about consequences of testing
- Van den, Neucker A M, Kerkvliet E M et al. Acid steatocrit: a reliable screening tool for steatorrhea. *Acta Paediatr* 2001;90(8):873-875. Not about consequences of testing
- Van den, Neucker A, Pestel N et al. Clinical use of acid steatocrit. *Acta Paediatr* 1997;86(5):466-469. Not about consequences of testing

van Lith, Marcel van, Ham Marieke et al. Novel polymorphisms in HLA-DOA and HLA-DOB in B-cell malignancies. *Immunogenetics* 2002;54(8):591-595. Not about consequences of testing

van Overbeek F M, Uil-Dieterman I G, Mol I W et al. The daily gluten intake in relatives of patients with coeliac disease compared with that of the general Dutch population. *Eur J Gastroenterol Hepatol* 1997;9(11):1097-1099. Not about consequences of testing

Van Wouwe J P. Clinical and laboratory diagnosis of acrodermatitis enteropathica. *Eur J Pediatr* 1989;149(1):2-8. Not about consequences of testing

Vancikova Z, Chlumecky V, Sokol D et al. The serologic screening for celiac disease in the general population (blood donors) and in some high-risk groups of adults (patients with autoimmune diseases, osteoporosis and infertility) in the Czech republic. *Folia Microbiol (Praha)* 2002;47(6):753-758. Not about consequences of testing

Vanderschueren-Lodeweyckx M, Wolter R, Malvaux P et al. The glucagon stimulation test: effect of plasma growth hormone and on immunoreactive insulin, cortisol, and glucose in children. *Eur J Pediatr* 1974;85(2):182-187. Not about consequences of testing

Varjonen E, Vainio E, Kalimo K. Antigliadin IgE--indicator of wheat allergy in atopic dermatitis. *Allergy* 2000;55(4):386-391. Not about consequences of testing

Varkonyi A, Boda M, Endreffy E et al. Coeliac disease: always something to discover. *Scand J Gastroenterol* 1998;228(Suppl):122-129. Not about consequences of testing

Varma S, Malhotra P, Kochhar R et al. Celiac disease presenting as iron-deficiency anemia in northern India. *Indian Journal of Gastroenterology - Official Journal of the Indian Society of Gastroenterology* 2001;20(6):234-236. Not about consequences of testing

Vazquez H, Cabanne A, Sugai E et al. Serological markers identify histologically latent coeliac disease among first-degree relatives. *Eur J Gastroenterol Hepatol* 1996;8(1):15-21. Not about consequences of testing

Vazquez H, Sugai E, Pedreira S et al. Screening for asymptomatic celiac sprue in families. *J Clin Gastroenterol* 1995;21(2):130-133. Not about consequences of testing

Ventrucci M, Cipolla A, Di Stefano M et al. Determination of fecal fat concentration by near

infrared spectrometry for the screening of pancreatic steatorrhea. *International Journal of Pancreatology - Official Journal of the International Association of Pancreatology* 1998;23(1):17-23. Not about consequences of testing

Ventura A, Magazzu G, Greco L. Duration of exposure to gluten and risk for autoimmune disorders in patients with celiac disease. *SIGEP Study Group for Autoimmune Disorders in Celiac Disease. Gastroenterology* 1999;117(2):297-303. Not about consequences of testing

Ventura A, Martellosi S. The old and new coeliac disease. *Eur J Pediatr Dermatol* 1995;5(2):87-94. Not about consequences of testing

Verhulst M L, Dur A H M, Driessen W M M. Two sisters with coeliac disease and jejunal cancer: Just a coincidence?. *Neth J Med* 1993;42(1):16-20. Not about consequences of testing

Vermeer B J, Lindeman J, Harst-Oostveen C J et al. The immunoglobulin-bearing cells in the lamina propria and the clinical response to a gluten-free diet in dermatitis herpetiformis. *Arch Dermatol Res* 1977;258(3):223-230. Not about consequences of testing

Vesny C J, Greenson J K, Papp A C et al. Evaluation of celiac disease biopsies for adenovirus 12 DNA using a multiplex polymerase chain reaction. *Modern Pathology - an Official Journal of the United States and Canadian Academy of Pathology, Inc* 1993;6(1):61-64. Not about consequences of testing

Viner Mark W, Waite John, Thienhaus Ole J. Comorbidity and the need for physical examinations among patients seen in the psychiatric emergency service. *Psychiatr Serv* 1996;47(9):947-948. Not about consequences of testing

Visakorpi J K, Kuitunen P, Pelkonen P. Intestinal malabsorption: a clinical study of 22 children over 2 years of age. *Acta Paediatr Scand* 1970;59(3):273-280. Not about consequences of testing

Visakorpi J K, Kuitunen P, Savilahti E. Frequency and nature of relapses in children suffering from the malabsorption syndrome with gluten intolerance. *Acta Paediatr Scand* 1970;59(5):481-486. Not about consequences of testing

Visakorpi J K, Maki M. Changing clinical features of coeliac disease. *Acta Paediatr Suppl* 1994;83(395):10-13. Not about consequences of testing

Vitoria J C, Arrieta A, Arranz C et al. Antibodies to gliadin, endomysium, and tissue transglutaminase for the diagnosis of celiac disease. *J Pediatr Gastroenterol*

- Nutr 1999;29(5):571-574. Not about consequences of testing
- Vitoria J C, Arrieta A, Astigarraga I et al. Use of serological markers as a screening test in family members of patients with celiac disease. *J Pediatr Gastroenterol Nutr* 1994;19(3):304-309. Not about consequences of testing
- Vitoria J C, Arrieta A, Ortiz L et al. Antibodies to human tissue transglutaminase for the diagnosis of celiac disease. *J Pediatr Gastroenterol Nutr* 2001;33(3):349-350. Not about consequences of testing
- Vitoria J C, Castano L, Rica I et al. Association of insulin-dependent diabetes mellitus and celiac disease: a study based on serologic markers. *J Pediatr Gastroenterol Nutr* 1998;27(1):47-52. Not about consequences of testing
- Vivas Santiago, Ruiz de, Morales Jose M et al. Human recombinant anti-transglutaminase antibody testing is useful in the diagnosis of silent coeliac disease in a selected group of at-risk patients. *Eur J Gastroenterol Hepatol* 2003;15(5):479-483. Not about consequences of testing
- Vjero Katerina, Martucci Susi, Alvisi Costanza et al. Defining a proper setting for endoscopy in coeliac disease. *Eur J Gastroenterol Hepatol* 2003;15(6):675-678. Not about consequences of testing
- Vogelsang H, Genser D, Wyatt J et al. Screening for celiac disease: a prospective study on the value of noninvasive tests. *Am J Gastroenterol* 1995;90(3):394-398. Not about consequences of testing
- Vogelsang H, Schwarzenhofer M, Oberhuber G. Changes in gastrointestinal permeability in celiac disease. *Dig Dis* 1998;16(6):333-336. Not about consequences of testing
- Vogelsang H, Wyatt J, Penner E et al. Screening for celiac disease in first-degree relatives of patients with celiac disease by lactulose/mannitol test. *Am J Gastroenterol* 1995;90(10):1838-1842. Not about consequences of testing
- Vogelsang H. The changing features of celiac disease. Preface. *Dig Dis* 1998;16(6):328-329. Not about consequences of testing
- Volta U, De Franceschi L, Lari F et al. Coeliac disease hidden by cryptogenic hypertransaminasaemia. *Lancet* 1998;352(9121):26-29. Not about consequences of testing
- Volta U, De Franceschi L, Molinaro N et al. Frequency and significance of anti-gliadin and anti-endomysial antibodies in autoimmune hepatitis. *Dig Dis Sci* 1998;43(10):2190-2195. Not about consequences of testing
- Volta U, Granito A, De Franceschi L et al. Anti tissue transglutaminase antibodies as predictors of silent coeliac disease in patients with hypertransaminasaemia of unknown origin. *Digestive and Liver Disease - Official Journal of the Italian Society of Gastroenterology and the Italian Association for the Study of the Liver* 2001;33(5):420-425. Not about consequences of testing
- Volta U, Lazzari R, Guidetti C S et al. Multicenter study on the reproducibility of antigliadin (AGA) and antiendomysial antibodies (EmA) in celiac sprue screening. The Tenue Club Group. *J Clin Gastroenterol* 1994;19(1):81-82. Not about consequences of testing
- Volta U, Lenzi M, Lazzari R et al. Antibodies to gliadin detected by immunofluorescence and a micro-ELISA method: markers of active childhood and adult coeliac disease. *Gut* 1985;26(7):667-671. Not about consequences of testing
- Volta U, Molinaro N, De Franceschi L et al. Human umbilical cord as substrate for IgA antiendomysial antibodies allows large scale screening for celiac sprue. *J Clin Gastroenterol* 1996;23(1):18-20. Not about consequences of testing
- Volta U, Molinaro N, De Franceschi L et al. IgA anti-endomysial antibodies on human umbilical cord tissue for celiac disease screening. Save both money and monkeys. *Dig Dis Sci* 1995;40(9):1902-1905. Not about consequences of testing
- Volta U, Molinaro N, De Franchis R et al. Correlation between IgA antiendomysial antibodies and subtotal villous atrophy in dermatitis herpetiformis. *J Clin Gastroenterol* 1992;14(4):298-301. Not about consequences of testing
- Volta U, Molinaro N, Fratangelo D et al. IgA antibodies to jejunum. Specific immunity directed against target organ of gluten-sensitive enteropathy. *Dig Dis Sci* 1994;39(9):1924-1929. Not about consequences of testing
- Volta U, Molinaro N, Fusconi M et al. IgA antiendomysial antibody test. A step forward in celiac disease screening. *Dig Dis Sci* 1991;36(6):752-756. Not about consequences of testing
- Volta U, Ravaglia G, Granito A et al. Coeliac disease in patients with autoimmune thyroiditis. *Digestion* 2001;64(1):61-65. Not about consequences of testing
- Volta Umberto, Rodrigo Luis, Granito Alessandro et al. Celiac disease in autoimmune cholestatic liver disorders. *Am J Gastroenterol* 2002;97(10):2609-2613. Not about consequences of testing

- Vuoristo M, Tilvis R, Miettinen T A. Serum plant sterols and lathosterol related to cholesterol absorption in coeliac disease. *Clin Chim Acta* 1988;174(2):213-224. Not about consequences of testing
- Wagner Mary H, Bowser Ellen K, Sherman James M et al. Comparison of steatocrit and fat absorption in persons with cystic fibrosis. *J Pediatr Gastroenterol Nutr* 2002;35(2):202-205. Not about consequences of testing
- Wahab P J, Meijer J W R, Goerres M S et al. Coeliac disease: changing views on gluten-sensitive enteropathy. *Scand J Gastroenterol* 2002;236(Suppl):60-65. Not about consequences of testing
- Wahab P J, Meijer Jos W R, Dumitra D et al. Coeliac disease: more than villous atrophy. *Rom J Gastroenterol* 2002;11(2):121-127. Not about consequences of testing
- Wahab PJ, Meijer Jos WR, Mulder CJJ. Histologic follow-up of people with celiac disease on a gluten-free diet: slow and incomplete recovery. *Am J Clin Pathol* 2002; 118(3):459-463. Not about consequences of testing
- Walker-Smith J A. Celiac disease and Down syndrome. *Eur J Pediatr* 2000;137(6):743-744. Not about consequences of testing
- Walker-Smith J A. Diabetes and coeliac disease. *Lancet* 1969;2(7634):1366 Not about consequences of testing
- Walker-Smith J A. Transient gluten intolerance. *Arch Dis Child* 1972;47(251):155 Not about consequences of testing
- Walker-Smith J. Cow's milk protein intolerance. Transient food intolerance of infancy. *Arch Dis Child* 1975;50(5):347-350. Not about consequences of testing
- Walker-Smith J. Transient gluten intolerance. *Arch Dis Child* 1970;45(242):523-526. Not about consequences of testing
- Walkowiak J, Herzig K H. Fecal elastase-1 is decreased in villous atrophy regardless of the underlying disease. *Eur J Clin Invest* 2001;31(5):425-430. Not about consequences of testing
- Walkowiak Jaroslaw, Herzig Karl, Strzykala Krystyna et al. Fecal elastase-1 is superior to fecal chymotrypsin in the assessment of pancreatic involvement in cystic fibrosis. *Pediatrics* 2002;110(1 Pt 1):E7 Not about consequences of testing
- Waller S L, Mottaleb A, Wiggins H S et al. Further observations on the Lundh test meal in the diagnosis of pancreatic disease. *Gut* 1971;12(10):869 Not about consequences of testing
- Ward Jeanette E, Boyle Kate, Redman Selina et al. Increasing women's compliance with opportunistic cervical cancer screening: A randomized trial. *Am J Prev Med* 1991;7(5):285-291. Not about consequences of testing
- Watson R G, McMillan S A, Dickey W et al. Detection of undiagnosed coeliac disease with atypical features using antireticulin and antigliadin antibodies. *Q J Med* 1992;84(305):713-718. Not about consequences of testing
- Wauters E A, Jansen J, Houwen R H et al. Serum IgG and IgA anti-gliadin antibodies as markers of mucosal damage in children with suspected celiac disease upon gluten challenge. *J Pediatr Gastroenterol Nutr* 1991;13(2):192-196. Not about consequences of testing
- Weile B, Grodzinsky E, Skogh T et al. Screening Danish blood donors for antigliadin and antiendomysium antibodies. *Acta Paediatr* 1996;412(Suppl):46 Not about consequences of testing
- Weile B. Aspects of classic symptomatic childhood coeliac disease in Denmark: Retrospectively illustrated by local, regional, and national studies. *APMIS Suppl* 2003;111(113):5-46. Not about consequences of testing
- Weile I, Grodzinsky E, Skogh T et al. High prevalence rates of adult silent coeliac disease, as seen in Sweden, must be expected in Denmark. *APMIS* 2001;109(11):745-750. Not about consequences of testing
- Weinstein W M, Brow J R, Parker F et al. The small intestinal mucosa in dermatitis herpetiformis. II. Relationship of the small intestinal lesion to gluten. *Gastroenterology* 1971;60(3):362-369. Not about consequences of testing
- Weinstein W M. Latent celiac sprue. *Gastroenterology* 1974;66(4):489-493. Not about consequences of testing
- Weir D G, Hourihane D O. Coeliac disease during the teenage period: the value of serial serum folate estimations. *Gut* 1974;15(6):450-457. Not about consequences of testing
- Weizman Z, Forstner G G, Gaskin K J et al. Bentriomide test for assessing pancreatic dysfunction using analysis of para-aminobenzoic acid in plasma and urine. Studies in cystic fibrosis and Shwachman's syndrome. *Gastroenterology* 1985;89(3):596-604. Not about consequences of testing
- Weizman Z, Hamilton J R, Kopelman H R et al. Treatment failure in celiac disease due to coexistent

- exocrine pancreatic insufficiency. *Pediatrics* 1987;80(6):924-926. Not about consequences of testing
- West J, Lloyd C A, Hill P G et al. IgA-antitissue transglutaminase: validation of a commercial assay for diagnosing coeliac disease. *Clin Lab* 2002;48(5-6):241-246. Not about consequences of testing
- Whitfield C R. Obstetric sprue. *J Obstet Gynaecol Br Commonw* 1970;77(7):577-586. Not about consequences of testing
- Whorwell P J, Alderson M R, Foster K J et al. Death from ischaemic heart-disease and malignancy in adult patients with coeliac disease. *Lancet* 1976;2(7977):113-114. Not about consequences of testing
- Williams A J, Annis P, Lock R J et al. Evaluation of a high-throughput second antibody radiobinding assay for measuring IgA antibodies to human tissue transglutaminase. *J Immunol Methods* 1999;228(1-2):81-85. Not about consequences of testing
- Williams A J, Norcross A J, Lock R J et al. The high prevalence of autoantibodies to tissue transglutaminase in first-degree relatives of patients with type 1 diabetes is not associated with islet autoimmunity. *Diabetes Care* 2001;24(3):504-509. Not about consequences of testing
- Wills A J, Turner B, Lock R J et al. Dermatitis herpetiformis and neurological dysfunction. *J Neurol Neurosurg Psychiatry* 2002;72(2):259-261. Not about consequences of testing
- Wills A J. The neurology and neuropathology of coeliac disease. *Neuropathol Appl Neurobiol* 2000;26(6):493-496. Not about consequences of testing
- Wilson C, Eade O E, Elstein M et al. Subclinical coeliac disease and infertility. *Br Med J* 1976;2(6029):215-216. Not about consequences of testing
- Wilson F A, Dietschy J M. Differential diagnostic approach to clinical problems of malabsorption. *Gastroenterology* 1971;61(6):911-931. Not about consequences of testing
- Winston A P. Physical assessment of the eating disordered patient. *European Eating Disorders Review* 2000;8(2):188-191. Not about consequences of testing
- Wolford George L, Rosenberg Stanley D, Drake Robert E et al. Evaluation of methods for detecting substance use disorder in persons with severe mental illness. *Psychol Addict Behav* 1999;13(4):313-326. Not about consequences of testing
- Wolters Victorien, Vooijs-Moulaert Anne, Burger Huib et al. Human tissue transglutaminase enzyme linked immunosorbent assay outperforms both the guinea pig based tissue transglutaminase assay and anti-endomysium antibodies when screening for coeliac disease. *Eur J Pediatr* 2002;161(5):284-287. Not about consequences of testing
- Wong R C W, Wilson R J, Steele R H et al. A comparison of 13 guinea pig and human anti-tissue transglutaminase antibody ELISA kits. *Am J Clin Pathol* 2002;55(7):488-494. Not about consequences of testing
- Woolley Niina, Holopainen Paivi, Ollikainen Vesa et al. A new locus for coeliac disease mapped to chromosome 15 in a population isolate. *Hum Genet* 2002;111(1):40-45. Not about consequences of testing
- Worden John K, Mickey Ruth M, Flynn Brian S et al. Development of a community breast screening promotion program using baseline data. *Am J Prev Med* 1994;23(3):267-275. Not about consequences of testing
- Wray D, Ferguson M M, Mason D K et al. Recurrent aphthae: treatment with vitamin B12, folic acid, and iron. *Br Med J* 1975;2(5969):490-493. Not about consequences of testing
- Yeboah F A, White D. AlphaB-crystallin expression in celiac disease - a preliminary study. *Croat Med J* 2001;42(5):523-526. Not about consequences of testing
- Yiannakou J Y, Dell'Olio D, Saaka M et al. Detection and characterisation of anti-endomysial antibody in coeliac disease using human umbilical cord. *Int Arch Allergy Immunol* 1997;112(2):140-144. Not about consequences of testing
- Young G P, Hebbard G S. Diagnostic techniques for small intestinal disease. *Curr Opin Gastroenterol* 1992;8(2):232-238. Not about consequences of testing
- Zachor D A, Mroczek-Musulman E, Brown P. Prevalence of coeliac disease in Down syndrome in the United States. *J Pediatr Gastroenterol Nutr* 2000;31(3):275-279. Not about consequences of testing
- Zadik Z, Kowarski A. Incidence of neurosecretory dysfunction among children aged 6-14 years in Rehovot, Israel. *Acta Paediatr Scand Suppl* 1989;34977-83. Not about consequences of testing
- Zalev A H, Gardiner G W, Warren R E. NSAID injury to the small intestine. *Abdom Imaging* 1998;23(1):40-44. Not about consequences of testing
- Zauli D, Grassi A, Granito A et al. Prevalence of silent coeliac disease in atopics. *Digestive and Liver Disease - Official Journal of the Italian Society of*

Gastroenterology and the Italian Association for the Study of the Liver 2000;32(9):775-779. Not about consequences of testing

Zhong F, McCombs C C, Olson J M et al. An autosomal screen for genes that predispose to celiac disease in the western counties of Ireland. *Nat Genet* 1996;14(3):329-333. Not about consequences of testing

Zipser Robert D, Patel Sunil, Yahya Kareem Z et al. Presentations of adult celiac disease in a nationwide patient support group. *Dig Dis Sci* 2003;48(4):761-764. Not about consequences of testing

Zouganelis S, Priest M. Impact of dietary compliance on nutritional status in adult coeliac disease. *Gut* 2001; 48(Suppl 1):A42. Unable to obtain article

Zwolak R M. Can duplex ultrasound replace arteriography in screening for mesenteric ischemia?. *Semin Vasc Surg* 1999;12(4):252-260. Not about consequences of testing

## Objective 5 – Promoting or Monitoring Adherence to a GFD

Abdulkarim A S, Murray J A. Celiac disease. *Curr Treat Options Gastroenterol.* 2002;5(1):27-38. Not relevant to adherence

Addolorato G, Capristo E, Ghittoni G et al. Anxiety but not depression decreases in coeliac patients after one-year gluten-free diet: a longitudinal study. *Scand J Gastroenterol* 2001;36(5):502-506. Not relevant to adherence

Addolorato G, Stefanini G F, Capristo E et al. Anxiety and depression in adult untreated celiac subjects and in patients affected by inflammatory bowel disease: A personality 'trait' or a reactive illness?. *Hepatogastroenterology* 1996;43(12):1513-1517. Not relevant to adherence

Al Bayaty HF, Aldred MJ, Walker DM et al. Salivary and serum antibodies to gliadin in the diagnosis of celiac disease. *J Oral Pathol Med* 1989; 18(10):578-581. No correlations with other measures

Amari A, Grace N C, Fisher W W. Achieving and Maintaining Compliance With the Ketogenic Diet. *J Appl Behav Anal* 1995;28(3):341-342. Not relevant to adherence

Amin Rakesh, Murphy Nuala, Edge Julie et al. A longitudinal study of the effects of a gluten-free diet on glycemic control and weight gain in subjects with type 1 diabetes and celiac disease. *Diabetes Care* 2002;25(7):1117-1122. Not relevant to adherence

Anderson R P, Degano P, Godkin A J et al. In vivo antigen challenge in celiac disease identifies a single transglutaminase-modified peptide as the dominant A-gliadin T-cell epitope. *Nat Med* 2000;6(3):337-342. Not relevant to adherence

Andersson H, Bjorkman A C, Gillberg R et al. Influence of the amount of dietary gluten on gastrointestinal morphology and function in dermatitis herpetiformis. *Human Nutrition.Clinical Nutrition* 1984;38(4):279-285. Not relevant to adherence

Andersson H, Mobacken H. Dietary treatment of dermatitis herpetiformis. *Eur J Clin Nutr* 1992;46(5):309-315. Not relevant to adherence

Andre F, Andre C, Colin L et al. Role of new allergens and of allergens consumption in the increased incidence of food sensitizations in France. *Toxicology* 1994;93(1):77-83. Not relevant to adherence

Andrews A. Coeliac disease: new aspects. *BNF Nutrition Bulletin* 1999;24(87):66-70. Not relevant to adherence

Annibale B, Severi C, Chistolini A et al. Efficacy of gluten-free diet alone on recovery from iron deficiency anemia in adult celiac patients. *Am J Gastroenterol* 2001;96(1):132-137. Not relevant to adherence

Anonymous. A long-term survey of coeliac disease. *Med J Aust* 1971;2(20):992Not relevant to adherence

Anonymous. Catch-up growth in celiac disease. *Nutr Rev* 1973;31(1):13-14. Not relevant to adherence

Anonymous. Celiac disease and how to live with it. *Harvard Women's Health Watch* 2001;8(9):3-4. Not relevant to adherence

Anonymous. Celiac disease. *Am Fam Phys* 1998;57(5):1039-1041. Not relevant to adherence

Anonymous. Growing up with coeliac disease. *Lancet* 1988;2(8622):1231-1232. Not relevant to adherence

Anonymous. Oats safe for coeliac disease patients. *Pharm J* 2002;268(7185):200Not relevant to adherence

Ansaldi N, Dell'Olio D, Tavassoli K et al. Dietary habits and social aspects of patients with coeliac disease. *Minerva Med* 1992;83(7-8):439-443. Not relevant to adherence

Ansaldi-Balocco N, Malorgio E, Faussonne D et al. Hydrogen breath-test in coeliac disease. *Hydrogen*

- excretion is related to jejunal histological changes. *Minerva Pediatr* 1994;46(12):569-574. No monitoring measure of interest
- Ascher H. Paediatric aspects of coeliac disease: old challenges and new ones... *Digestive and Liver Disease - Official Journal of the Italian Society of Gastroenterology and the Italian Association for the Study of the Liver* 2002;34(3):216-224. Not relevant to adherence
- Ashkenazi A, Levin S, Idar D et al. Cellular immunity in children with coeliac disease. *Eur J Pediatr* 1982;138(3):250-253. Not relevant to adherence
- Ashkenazi A. Living with celiac disease. *Child Hosp Q* 1989;1(3):265-271. Not relevant to adherence
- Asquith P. Adult coeliac disease and malignancy. *Ir Med J* 1974;67(15):417-420. Not relevant to adherence
- Atkinson K, Tokmakajian S, Watson W et al. Evaluation of the endomysial antibody for celiac disease: operating properties and associated cost implications in clinical practice. *Can J Gastroenterol* 1997;11(8):673-677. Not relevant to adherence
- Auricchio S, Greco L, Troncone R. Gluten-sensitive enteropathy in childhood. *Pediatr Clin North Am* 1988;35(1):157-187. Not relevant to adherence
- Auricchio S, Troncone R. Effects of small amounts of gluten in the diet of coeliac patients. *Panminerva Med* 1991;33(2):83-85. Not relevant to adherence
- Austin A S, Logan R F A, Thomason K et al. Cigarette smoking and adult coeliac disease. *Scand J Gastroenterol* 2002;37(8):978-982. Not relevant to adherence
- Bachle T, Ruhl U, Ott G et al. Enteropathy-associated T-cell lymphoma, presenting as diet-refractory coeliac disease. *Dtsch Med Wochenschr* 2001;126(51-52):1460-1463. Not relevant to adherence
- Bai J C, Gonzalez D, Mautalen C et al. Long-term effect of gluten restriction on bone mineral density of patients with coeliac disease. *Aliment Pharmacol Ther* 1997;11(1):157-164. Not relevant to adherence
- Bai J, Moran C, Martinez C et al. Celiac sprue after surgery of the upper gastrointestinal tract. Report of 10 patients with special attention to diagnosis, clinical behavior, and follow-up. *J Clin Gastroenterol* 1991;13(5):521-524. Not relevant to adherence
- Bardella M T, Fraquelli M, Quatrini M et al. Prevalence of hypertransaminasemia in adult celiac patients and effect of gluten-free diet. *J Gastroenterol Hepatol* 1995;22(3):833-836. Not relevant to adherence
- Bardella M T, Fredella C, Prampolini L et al. Body composition and dietary intakes in adult celiac disease patients consuming a strict gluten-free diet. *Am J Clin Nutr* 2000;72(4):937-939. Not relevant to adherence
- Bardella M T, Molteni N, Prampolini L et al. Need for follow up in coeliac disease. *Arch Dis Child* 1994;70(3):211-213. Not relevant to adherence
- Bardella M T, Molteni N, Quatrini M et al. Clinical, biochemical and histological abnormalities in adult celiac patients on gluten-free diet. *Gastroenterol Clin Biol* 1985;9(11):787-789. Not relevant to adherence
- Barera G, Mora S, Brambilla P et al. Body composition in children with celiac disease and the effects of a gluten-free diet: a prospective case-control study. *Am J Clin Nutr* 2000;72(1):71-75. Not relevant to adherence
- Barna M, Pinter E. Anti-gliadin and anti-endomysium antibodies in children with celiac disease consuming a gluten free diet. *Z Ernahrungswiss* 1998;37(Suppl 1):103-105. Monitoring not serology, EMA, tTG or biopsy based, or not promoting GFD adherence
- Bentley A C. A survey of celiac-sprue patients: effect of dietary restrictions on religious practices. *J Gen Psychol* 1988;115(1):7-14. Not relevant to adherence
- Berger R, Schmidt G. Evaluation of six anti-gliadin antibody assays. *J Immunol Methods* 1996; 191(1):77-86. Not relevant to adherence
- Bhatia K P, Brown P, Gregory R et al. Progressive myoclonic ataxia associated with coeliac disease: The myoclonus is of cortical origin, but the pathology is in the cerebellum. *Brain Dev* 1995;118(5):1087-1093. Not relevant to adherence
- Biagi F, Corazza G R. A review on ulcerative jejunoileitis: LA JEJUNO-ILEITE ULCEREUSE: REVUE DE LA LITTERATURE. *Acta Endoscopica* 2001;31(3):265-269. Not relevant to adherence
- Biagi F, Parnell N D, Ellis H J et al. Endomysial antibody production is not related to histological damage after in vitro gluten challenge. *Eur J Gastroenterol Hepatol* 2000;12(1):57-60. Not relevant to adherence
- Bjornsson E, Janson C, Plaschke P et al. Prevalence of sensitization to food allergens in adult Swedes. *Ann Allergy Asthma Immunol* 1996;77(4):327-332. Not relevant to adherence
- Blazer S, Naveh Y, Berant M et al. Serum IgG antibodies to gliadin in children with celiac disease as measured by an immunofluorescence method. *J Pediatr Gastroenterol Nutr* 1984; 3(2):205-209. Not relevant to adherence
- Boersma B, Houwen R H J, Blum W F et al. Catch-up growth and endocrine changes in childhood celiac disease. Endocrine changes during catch-up growth. *Horm Res* 2002;58(Suppl 1):57-65. Not relevant to adherence

- Bonamico M, Mariani P, Mazzilli M C et al. Frequency and clinical pattern of celiac disease among siblings of celiac children. *J Pediatr Gastroenterol Nutr* 1996;23(2):159-163. Not relevant to adherence
- Bonamico M, Morellini M, Mariani P et al. HLA antigens and antigliadin antibodies in coeliac disease. *Dis Markers* 1991;9(6):313-317. Not relevant to adherence
- Booth I W. The nutritional consequences of gastrointestinal disease in adolescence. *Acta Paediatrica Scandinavica. Supplement*; 1991;37391-102. Not relevant to adherence
- Bottaro G, Failla P, Rotolo N et al. Changes in coeliac disease behaviour over the years. *Acta Paediatr* 1993;82(6-7):566-568. Not relevant to adherence
- Brink S J. Pediatric, adolescent, and young-adult nutrition issues in IDDM. *Diabetes Care* 1988;11(2):192-200. Not relevant to adherence
- Broberg A, Engstrom I, Kalimo K et al. Elimination diet in young children with atopic dermatitis. *Acta Derm-Venereol* 1992;72(5):365-369. Not relevant to adherence
- Burrows R, Leiva L, Burgueno M et al. Bone mineral density (BMD) in children with celiac disease (CD): Its relation to puberty and calcium intake. *Nutr Res* 1999;19(4):493-499. Not relevant to adherence
- Butterfield J H, Murray J A. Eosinophilic gastroenteritis and gluten-sensitive enteropathy in the same patient. *J Clin Gastroenterol* 2002;34(5):552-553. Not relevant to adherence
- Butterworth JR, Banfield L, Iqbal TH et al. What factors influence compliance with a gluten-free diet? A comparison of white caucasian and South Asian coeliac patients. *Gut* 2002; 50(Suppl 2):A18. No correlations with other measures
- Byrne M F, Razak A R A, Leader M B et al. Disabling osteomalacic myopathy as the only presenting feature of coeliac disease. *Eur J Gastroenterol Hepatol* 2002;14(11):1271-1274. Not relevant to adherence
- Campbell J A, Molloy M K, Davidson A G F et al. Dietary aspects from national survey of persons with celiac disease and dermatitis herpetiformis. *J Can Diet Assoc* 1991;52(3):161-165. Not relevant to adherence
- Campbell J A. Diet therapy of celiac disease and dermatitis herpetiformis. *World Rev Nutr Diet* 1987;51:189-233. Not relevant to adherence
- Campbell J A. Dietary management of celiac disease: variations in the gluten-free diet. *J Can Diet Assoc* 1992;53(1):15-18. Not relevant to adherence
- Capristo E, Addolorato G, Mingrone G et al. Changes in body composition, substrate oxidation, and resting metabolic rate in adult celiac disease patients after a 1-y gluten-free diet treatment. *Am J Clin Nutr* 2000;72(1):76-81. Not relevant to adherence
- Capristo E, Mingrone G, Addolorato G et al. Differences in metabolic variables between adult coeliac patients at diagnosis and patients on a gluten-free diet. *Scand J Gastroenterol* 1997;32(12):1222-1229. Not relevant to adherence
- Cardenas A, Kelly C P. Celiac sprue. *Semin Gastrointest Dis* 2002;13(4):232-244. Not relevant to adherence
- Carpino F, Ceccamea A, Magliocca FM et al. Scanning electron microscopy of jejunal biopsies in patients with untreated and treated coeliac disease. *Acta Paediatr Scand* 1985; 74(5):775-781. Not relevant to adherence
- Carroccio A, Iacono G, Montalto G et al. Pancreatic enzyme therapy in childhood celiac disease. A double-blind prospective randomized study. *Dig Dis Sci* 1995;40(12):2555-2560. Not relevant to adherence
- Casellas F, De Torres I, Malagelada J-R. Follow-up of celiac disease with D-xylose breath test. *Dig Dis Sci* 1996;41(10):2106-2111. Not relevant to adherence
- Cataldo F, Lio D, Marino V et al. IgG(1) antiendomysium and IgG antitissue transglutaminase (anti-tTG) antibodies in coeliac patients with selective IgA deficiency. Working Groups on Celiac Disease of SIGEP and Club del Tenue. *Gut* 2000;47(3):366-369. Not relevant to adherence
- Catassi C, Doloretta Macis M, Ratsch I-M et al. The distribution of DQ genes in the Saharawi population provides only a partial explanation for the high celiac disease prevalence. *Tissue Antigens* 2001;58(6):402-406. Not relevant to adherence
- Catassi C, Rossini M, Ratsch I M et al. Dose dependent effects of protracted ingestion of small amounts of gliadin in coeliac disease children: a clinical and jejunal morphometric study. *Gut* 1993;34(11):1515-1519. Not relevant to adherence
- Catassi C. Intestinal permeability tests: Research or diagnosis?. *Pediatric Reviews and Communications* 1993;7(3):202-205. Not relevant to adherence
- Cellier C, Cervoni J P, Patey N et al. Gluten-free diet induces regression of T-cell activation in the rectal mucosa of patients with celiac disease. *Am J Gastroenterol* 1998;93(9):1527-1530. Not relevant to adherence
- Chapman BL, Henry K, Paice F et al. Measuring the response of the jejunal mucosa in adult coeliac disease to treatment with a gluten-free diet. *Gut* 1974; 15(11):870-874. Not relevant to adherence
- Chartrand L J, Russo P A, Duhaime A G et al. Wheat starch intolerance in patients with celiac disease. *J Am Diet Assoc* 1997;97(6):612-618. Not relevant to adherence

Ciacci C, Cirillo M, Mellone M et al. Hypocalciuria in overt and subclinical celiac disease. *Am J Gastroenterol* 1995;90(9):1480-1484. Not relevant to adherence

Ciacci C, De Rosa A, de Michele G et al. Sexual behaviour in untreated and treated coeliac patients. *Eur J Gastroenterol Hepatol* 1998;10(8):649-651. Not relevant to adherence

Ciacci C, Di Vizio D, Seth R et al. Selective reduction of intestinal trefoil factor in untreated coeliac disease. *Clin Exp Immunol* 2002;130(3):526-531. Not relevant to adherence

Ciacci C, Iavarone A, Mazzacca G et al. Depressive symptoms in adult coeliac disease. *Scand J Gastroenterol* 1998;33(3):247-250. Not relevant to adherence

Ciacci C, Maurelli L, Klain M et al. Effects of dietary treatment on bone mineral density in adults with celiac disease: factors predicting response. *Am J Gastroenterol* 1997;92(6):992-996. Not relevant to adherence

Ciacci Carolina, Iavarone Alessandro, Siniscalchi Monica et al. Psychological dimensions of celiac disease: toward an integrated approach. *Dig Dis Sci* 2002;47(9):2082-2087. Not relevant to adherence

Ciampolini M, Bini S. Serum lipids in celiac children. *J Pediatr Gastroenterol Nutr* 1991; 12(4):459-460. No correlations with other measures

Ciclitira P J, Ellis H J, Evans D J et al. A radioimmunoassay for wheat gliadin to assess the suitability of gluten free foods for patients with coeliac disease. *Clin Exp Immunol* 1985;59(3):703-708. Not relevant to adherence

Ciclitira P J. Recent advances in coeliac disease. *Clin Med* 2003;3(2):166-169. Not relevant to adherence

Cinquetti M, Trabucchi C, Menegazzi N et al. Psychological problems connected to the dietary restrictions in the adolescent with coeliac disease. *La Pediatria Medica E Chirurgica - Medical and Surgical Pediatrics* 1999;21(6):279-283. Not relevant to adherence

Cocchi Renato. Toilet habits in drugs treated downs: A survey on 209 subjects. *Italian Journal of Intellectual Impairment* 1997;10(1):13-17. Not relevant to adherence

Colaco J, Egan-Mitchell B, Stevens FM et al. Compliance with gluten free diet in coeliac disease. *Arch Dis Child* 1987; 62(7):706-708. Not relevant to adherence

Collin P, Hallstrom O, Maki M et al. Atypical coeliac disease found with serologic screening. *Scand J Gastroenterol* 1990;25(3):245-250. Not relevant to adherence

Collin P, Pirttilae T, Nurmikko T et al. Celiac Disease, Brain Atrophy, and Dementia. *Neurology* 1991;41(3):372-375. Not relevant to adherence

Collin P, Reunala T. Recognition and management of the cutaneous manifestations of celiac disease: A guide for dermatologists. *Am J Clin Dermatol* 2003;4(1):13-20. Not relevant to adherence

Collins B J, Bell P M, Boyd S et al. Endocrine and exocrine pancreatic function in treated coeliac disease. *Pancreas* 1986;1(2):143-147. Not relevant to adherence

Collins B J, Bell P M, Thomson J M et al. Dietary history and nutritional state in treated coeliac patients. *J R Soc Med* 1986;79(4):206-209. Not relevant to adherence

Congdon P, Mason MK, Smith S et al. Small-bowel mucosa in asymptomatic children with celiac disease. Mucosal changes with gluten-free diets. *Am J Dis Child* 1981; 135(2):118-121. Not relevant to adherence

Corazza G R, Di Sario A, Sacco G et al. Subclinical coeliac disease: an anthropometric assessment. *J Intern Med* 1994;236(2):183-187. No monitoring measure of interest

Corazza G R, Di Stefano M, Jorizzo R A et al. Propeptide of type I procollagen is predictive of posttreatment bone mass gain in adult celiac disease. *Gastroenterology* 1997;113(1):67-71. Not relevant to adherence

Corrao G, Corazza G R, Bagnardi V et al. Mortality in patients with coeliac disease and their relatives: a cohort study. *Lancet* 2001;358(9279):356-361. Not relevant to adherence

Corvaglia L, Catamo R, Pepe G et al. Depression in adult untreated celiac subjects: Diagnosis by the pediatrician. *Am J Gastroenterol* 1999;94(3):839-843. Not relevant to adherence

Crofton R W, Glover S C, Ewen S W et al. Zinc absorption in celiac disease and dermatitis herpetiformis: a test of small intestinal function. *Am J Clin Nutr* 1983;38(5):706-712. No monitoring measure of interest

Cronin C C, Feighery A, Ferriss J B et al. High prevalence of celiac disease among patients with insulin-dependent (type I) diabetes mellitus. *Am J Gastroenterol* 1997;92(12):2210-2212. Not relevant to adherence

Cronin Cornelius C, Shanahan Fergus. Exploring the iceberg--the spectrum of celiac disease. *Am J Gastroenterol* 2003;98(3):518-520. Not relevant to adherence

Cummins A G, Thompson F M, Butler R N et al. Improvement in intestinal permeability precedes morphometric recovery of the small intestine in coeliac disease. *Clinical Science (London, England - 1979)* 2001;100(4):379-386. Not relevant to adherence

- Cuoco L, Cammarota G, Tursi A et al. Disappearance of gastric mucosa-associated lymphoid tissue in coeliac patients after gluten withdrawal. *Scand J Gastroenterol* 1998;33(4):401-405. Not relevant to adherence
- Cuomo A, Romano M, Rocco A et al. Reflux oesophagitis in adult coeliac disease: beneficial effect of a gluten free diet. *Gut* 2003;52(4):514-517. Not relevant to adherence
- Curione M, Barbato M, Viola F et al. Idiopathic dilated cardiomyopathy associated with coeliac disease: The effect of a gluten-free diet on cardiac performance. *Dig Dis Sci* 2002;34(12):866-869. Not relevant to adherence
- Dahele A, V, Aldhous MC, Humphreys K et al. Serum IgA tissue transglutaminase antibodies in coeliac disease and other gastrointestinal diseases. *Q J Med* 2001; 94(4):195-205. Not relevant to adherence
- Damen G M, Boersma B, Wit J M et al. Catch-up growth in 60 children with celiac disease. *J Pediatr Gastroenterol Nutr* 1994;19(4):394-400. Not relevant to adherence
- Damoiseaux J G M C, Tervaert J W C. Celiac disease: the role of (auto)antibody detection in diagnosis and follow-up. *Neth J Med* 2002;60(7):303-304. Review article
- Daniels D E, Rene A A, Daniels V R. Race: an Explanation of Patient Compliance: Fact or Fiction?. *J Natl Med Assoc* 1994;86(1):20-25. Not relevant to adherence
- Davis M K. Breastfeeding and chronic disease in childhood and adolescence. *Pediatr Clin North Am* 2001;48(1):125-141. Not relevant to adherence
- De Lorenzo A, Di Campli C, Andreoli A et al. Assessment of body composition by bioelectrical impedance in adolescent patients with celiac disease. *Am J Gastroenterol* 1999;94(10):2951-2955. Not relevant to adherence
- de Vries T W, Wierdsma N, van Ede J et al. Dieting in children referred to the paediatric outpatient clinic. *Eur J Pediatr* 2001;160(10):595-598. Not relevant to adherence
- Denman A M. Nature and diagnosis of food allergy. *Proc Nutr Soc* 1979;38(3):391-402. Not relevant to adherence
- Devine PL, Birrell GW, Golder JP et al. Screening and monitoring coeliac disease: multicentre trial of a new serum antibody test kit. *Dis Markers* 1994; 12(1):71-80. Not relevant to adherence
- Di Sabatino A, Bertrandi E, Casadei Maldini M et al. Phenotyping of peripheral blood lymphocytes in adult coeliac disease. *Immunology* 1998;95(4):572-576. Not relevant to adherence
- Di Stefano M, Veneto G, Corrao G et al. Role of lifestyle factors in the pathogenesis of osteopenia in adult coeliac disease: A multivariate analysis. *Eur J Gastroenterol Hepatol* 2000;12(11):1195-1199. Not relevant to adherence
- Diamanti A, Maino C, Niveloni S et al. Characterization of gastric mucosal lesions in patients with celiac disease: a prospective controlled study. *Am J Gastroenterol* 1999;94(5):1313-1319. Not relevant to adherence
- Dickey W, Bodkin S. Prospective study of body mass index in patients with coeliac disease. *BMJ* 1998;317(7168):1290. Not relevant to adherence
- Dimatteo M R, Giordani P J, Lepper H S et al. Patient Adherence and Medical Treatment Outcomes - a Meta-Analysis. *Med Care* 2002;40(9):794-811. Not relevant to adherence
- Dimatteo M R, Lepper H S, Croghan T W. Depression Is a Risk Factor for Noncompliance With Medical Treatment - Meta-Analysis of the Effects of Anxiety and Depression on Patient Adherence. *Arch Intern Med* 2000;160(14):2101-2107. Not relevant to adherence
- Dinari G, Rosenbach Y, Marcus H et al. IgA antigliadin antibodies in childhood celiac disease. *Isr J Med Sci* 1988;24(6):286-290. Not relevant to adherence
- Dissanayake AS, Truelove SC, Whitehead R. Jejunal mucosal recovery in coeliac disease in relation to the degree of adherence to a gluten-free diet. *Q J Med* 1974; 43(170):161-185. Not relevant to adherence
- Dohan F C. Is celiac disease a clue to the pathogenesis of schizophrenia?. *Ment Hyg* 1969;53(4):525-529. Not relevant to adherence
- Donat Aliaga E, Polo Miquel B, Ribes-Koninckx C. Serological markers of celiac disease. *Acta Pediatr Esp* 2003;61(1):24-32. Not relevant to adherence
- Dubel L, Absalon Y B, Baudon J J et al. Screening of coeliac disease: Optimal technique and serological marker. *Ann Biol Clin (Paris)* 1996;54(7):303-306. Not relevant to adherence
- Elsborg L, Mosbech J. Sprue: a follow-up study of an old series. *Dan Med Bull* 1978;25(5):205-206. Not relevant to adherence
- Erdman John W. Factors that limit or enhance bioavailability of minerals from food. *Nutrition & the Md* 1983;9(2):1-2. Not relevant to adherence
- Falth-Magnusson K, Franzen L, Jansson G et al. Infant feeding history shows distinct differences between Swedish celiac and reference children. *Pediatric Allergy and Immunology - Official Publication of the European Society of Pediatric Allergy and Immunology* 1996;7(1):1-5. Not relevant to adherence
- Falzon L. Topic: Gluten-free diet of coeliac disease. *J Clin Excellence* 2001;3(4):209-211. Not relevant to adherence
- Fasano A, Catassi C. Current approaches to diagnosis and treatment of celiac disease: an evolving spectrum.

- Gastroenterology 2001;120(3):636-651. Not relevant to adherence
- Fasano Alessio. Celiac disease--how to handle a clinical chameleon. *N Engl J Med* 2003;348(25):2568-2570. Not relevant to adherence
- Faulkner-Hogg K B, Selby W S, Loblay R H. Dietary analysis in symptomatic patients with coeliac disease on a gluten-free diet: the role of trace amounts of gluten and non-gluten food intolerances. *Scand J Gastroenterol* 1999;34(8):784-789. Not relevant to adherence
- Feighery C F. Coeliac disease: How much of what is toxic to whom?. *Gut* 1998;43(2):164-165. Not relevant to adherence
- Ferfaglia G, Pulitano R, Sategna-Guidetti C. Do dietary antibodies still play a role in the diagnosis and follow-up of coeliac disease? A comparison among different serological tests. *Panminerva Med* 1995; 37(2):55-59. Not relevant to adherence
- Ferguson A, Denton-Miller P, Lai C L. Coeliac disease--objectives of life-long follow-up. *Health Bull (Edinb)* 1977;35(2):78-80. Not relevant to adherence
- Ferguson A. Symptoms and manifestations of food allergy, with particular relevance to the gut. *Environ Toxicol Pharmacol* 1997;4(1-2):33-38. Not relevant to adherence
- Fernandez-Calle P, Codoceo R, Polanco I et al. Is an intestinal permeability test a valid marker for slight dietary transgressions in adolescents with coeliac disease?. *Gut* 1993;34(6):774-777. No monitoring measure of interest
- Fine K D, Meyer R L, Lee E L. The prevalence and causes of chronic diarrhea in patients with celiac sprue treated with a gluten-free diet. *Gastroenterology* 1997;112(6):1830-1838. Not relevant to adherence
- Finkel M, Gelb A M, Cohen N et al. Long-term follow-up study in idiopathic steatorrhea. *Am J Gastroenterol* 1967;47(1):35-40. Not relevant to adherence
- Finn R. Food allergy - fact or fiction: A review. *J R Soc Med* 1992;85(9):560-564. Not relevant to adherence
- Flanagan D A, Wagner H L. Expressed Emotion and Panic<sup>^</sup>Fear in the Prediction of Diet Treatment Compliance. *Br J Clin Psychol* 1991;30(3):231-240. Not relevant to adherence
- Fois A, Vascotto M, Di Bartolo R M et al. Celiac disease and epilepsy in pediatric patients. *Child's Nerv Syst* 1994;10(7):450-454. Not relevant to adherence
- Fox L A. Diabetes therapy in children: Setting age-appropriate goals. *Drug Benefit Trends* 2002;14(Suppl D):30-35+44. Not relevant to adherence
- Francesco Stefanini G, Resta F, Marsigli L et al. Prurigo nodularis (Hyde's prurigo) disclosing celiac disease. *Hepatogastroenterology* 1999;46(28):2281-2284. Not relevant to adherence
- Francis Dorothy E M. Inborn errors of metabolism: The need for sugar. *J Hum Nutr* 1979;33(2):146-154. Not relevant to adherence
- Freeman H J. Free perforation due to intestinal lymphoma in biopsy-defined or suspected celiac disease. *J Clin Gastroenterol* 2003;37(4):299-302. Not relevant to adherence
- Fried M W. Side effects of therapy of hepatitis C and their management. *J Gastroenterol Hepatol* 2002;36(5 I):S237-S244. Not relevant to adherence
- Friis S U. Enzyme-linked immunosorbent assay for quantitation of cereal proteins toxic in coeliac disease. *Clin Chim Acta* 1988;178(3):261-270. Not relevant to adherence
- Fry L, Seah P P, Riches D J et al. Clearance of skin lesions in dermatitis herpetiformis after gluten withdrawal. *Lancet* 1973;1(7798):288-291. Not relevant to adherence
- Fuhrmann A, Kuhl J. Maintaining a Healthy Diet: Effects of Personality and Self-Reward Versus Self-Punishment on Commitment to and Enactment of Self-Chosen and Assigned Goals. *Psychol Health* 1998;13(4):651-686. Not relevant to adherence
- Gabel L L, Latanick M R. Nutrition-related prevention: An interdisciplinary strategy. *J Fam Pract* 1993;37(4):396-398. Not relevant to adherence
- Galli-Tsinopoulou A, Nousia-Arvanitakis S, Dracoulacos D et al. Autoantibodies predicting diabetes mellitus type I in celiac disease. *Horm Res* 1999;52(3):119-124. Not relevant to adherence
- Garioch J J, Lewis H M, Sargent S A et al. 25 years' experience of a gluten-free diet in the treatment of dermatitis herpetiformis. *Br J Dermatol* 1994;131(4):541-545. Not relevant to adherence
- Gawkrodger D J, Vestey J P, O'Mahony S et al. Dermatitis herpetiformis and established coeliac disease. *Br J Dermatol* 1993;129(6):694-695. Not relevant to adherence
- Gemme G, Vignolo M, Naselli A et al. Linear growth and skeletal maturation in subjects with treated celiac disease. *J Pediatr Gastroenterol Nutr* 1999;29(3):339-342. Not relevant to adherence
- Gillberg R, Ahren C. Coeliac disease diagnosed by means of duodenoscopy and endoscopic duodenal biopsy. *Scand J Gastroenterol* 1977; 12(8):911-916. Not relevant to adherence
- Gillett H R, Arnott I D R, McIntyre M et al. Successful infliximab treatment for steroid-refractory celiac disease: A

- case report. *Gastroenterology* 2002;122(3):800-805. Not relevant to adherence
- Gillett PM, Gillett HR, Israel DM et al. High prevalence of celiac disease in patients with type 1 diabetes detected by antibodies to endomysium and tissue transglutaminase. *Can J Gastroenterol* 2001; 15(5):297-301. Not relevant to adherence
- Giomi B, Cardinali C, Caproni M et al. Immunological markers in dermatitis herpetiformis: Anti-endomysium and anti-transglutaminase in association with increased myeloperoxidase and eosinophil cationic protein serum levels. *Int J Med Biol Environ* 2001;29(2):149-153. Not relevant to adherence
- Gonczy J, Skerritt JH, Mitchell JD. A reliable screening test for coeliac disease: enzyme-linked immunosorbent assay to detect anti-gliadin antibodies in serum. *Aust N Z J Med* 1991; 21(5):723-731. Not relevant to adherence
- Greco L, Mayer M, Ciccarelli G et al. Compliance to a gluten-free diet in adolescents, or "what do 300 coeliac adolescents eat every day?". *Ital J Gastroenterol Hepatol* 1997;29(4):305-310. Not relevant to adherence
- Greco L, Mayer M, Grimaldi M et al. The Effects of early feeding on the onset of Symptoms in celiac disease. *J Pediatr Gastroenterol Nutr* 1985;4(1):52-59. Not relevant to adherence
- Greco L, Percopo S. The coeliac disease task force "Free from Gluten," "Improved knowledge to cure coeliac disease". *Acta Paediatr. Supplement* 1996;4225-28. Not relevant to adherence
- Greco L, Tipo V, Di Donato F et al. Pulsatile growth pattern during catch-up growth in childhood coeliac disease. *Acta Paediatr* 1994;83(7):724-729. Not relevant to adherence
- Green P H R, Fleischauer A T, Bhagat G et al. Risk of malignancy in patients with celiac disease. *Am J Med* 2003;115(3):191-195. Not relevant to adherence
- Green P H R, Stavropoulos S N, Panagi S G et al. Characteristics of adult celiac disease in the USA: results of a national survey. *Am J Gastroenterol* 2001;96(1):126-131. Not relevant to adherence
- Grefte J M, Bouman J G, Grond J et al. Slow and incomplete histological and functional recovery in adult gluten sensitive enteropathy. *J Clin Pathol* 1988;41(8):886-891. Not relevant to adherence
- Grehn S, Fridell K, Lilliecreutz M et al. Dietary habits of Swedish adult coeliac patients treated by a gluten-free diet for 10 years. *Scand J Nutr Naringsforsk* 2001;45(4):178-182. Not relevant to adherence
- Gryboski J. False security of a gluten-free diet. *Am J Dis Child* 1981; 135(2):110-111. Not relevant to adherence
- Guandalini S, Ventura A, Ansaldi N et al. Diagnosis of coeliac disease: time for a change?. *Arch Dis Child* 1989;64(9):1320-1325. Not relevant to adherence
- Guandalini S. Celiac disease in the new world. *J Pediatr Gastroenterol Nutr* 2000;31(4):362-364. Not relevant to adherence
- Hadjivassiliou M, Davies-Jones G A B, Sanders D S et al. Dietary treatment of gluten ataxia. *J Neurol Neurosurg Psychiatry* 2003;74(9):1221-1224. Not relevant to adherence
- Hallert C, Granno C, Grant C et al. Quality of life of adult coeliac patients treated for 10 years. *Scand J Gastroenterol* 1998;33(9):933-938. Not relevant to adherence
- Hallert C, Granno C, Hulten S et al. Living with coeliac disease: controlled study of the burden of illness. *Scand J Gastroenterol* 2002;37(1):39-42. Not relevant to adherence
- Hallert C, Grant C, Grehn S et al. Evidence of poor vitamin status in coeliac patients on a gluten-free diet for 10 years. *Aliment Pharmacol Ther* 2002;16(7):1333-1339. Not relevant to adherence
- Hallert C, Lohiniemi S. Quality of life of celiac patients living on a gluten-free diet. *Nutrition* 1999;15(10):795-797. Not relevant to adherence
- Hallert C, Tobiasson P, Walan A. Serum folate determinations in tracing adult coeliacs. *Scand J Gastroenterol* 1981;16(2):263-267. Not relevant to adherence
- Hallstrom O, Reunala T. IgA class reticulin antibodies in dermatitis herpetiformis: a good indicator of jejunal damage. *Acta Derm Venereol* 1985;65(4):330-332. Not relevant to adherence
- Hamilton J R, McNeill L K. Childhood celiac disease: response of treated patients to a small uniform daily dose of wheat gluten. *Eur J Pediatr* 1972;81(5):885-893. Not relevant to adherence
- Hankey G L, Holmes G K. Coeliac disease in the elderly. *Gut* 1994;35(1):65-67. Not relevant to adherence
- Hansson T, Dahlbom I, Rogberg S et al. Recombinant human tissue transglutaminase for diagnosis and follow-up of childhood coeliac disease. *Pediatr Res* 2002; 51(6):700-705. Not relevant to adherence
- Hansson T, Dannaeus A, Kraaz W et al. Production of antibodies to gliadin by peripheral blood lymphocytes in children with celiac disease: the use of an enzyme-linked immunospot technique for screening and follow-up. *Pediatr Res* 1997; 41(4 Pt 1):554-559. Not relevant to adherence

- Harris O D, Warner M, Cooke W T. Serum alkaline phosphatase in adult coeliac disease. *Gut* 1969;10(11):951. Not relevant to adherence
- Hawkes N D, Swift G L, Smith P M et al. Incidence and presentation of coeliac disease in South Glamorgan. *Eur J Gastroenterol Hepatol* 2000;12(3):345-349. Not relevant to adherence
- Henry C L. Patients' view of a gluten-free diet. *J Hum Nutr* 1980;34(1):50-51. Not relevant to adherence
- Hernandez M A, Colina G, Ortigosa L. Epilepsy, cerebral calcifications and clinical or subclinical coeliac disease. Course and follow up with gluten-free diet. *Seizure - the Journal of the British Epilepsy Association* 1998;7(1):49-54. Not relevant to adherence
- Hetzel P A S, Labrooy J T, Bellon M. The sup 5sup 1Cr EDTA absorption test in coeliac patients treated with a gluten free diet. *Ircs Med Sci* 1986;14(12):1183-1184. Not relevant to adherence
- Hill PG, Thompson SP, Holmes GK. IgA anti-gliadin antibodies in adult coeliac disease. *Clin Chem* 1991; 37(5):647-650. Not relevant to adherence
- Hjelt K, Krasilnikoff P A. The impact of gluten on haematological status, dietary intakes of haemopoietic nutrients and vitamin B12 and folic acid absorption in children with coeliac disease. *Acta Paediatr Scand* 1990;79(10):911-919. Not relevant to adherence
- Holmes G K T. Coeliac disease and malignancy. *Dig Dis Sci* 2002;34(3):229-237. Not relevant to adherence
- Holmes G K, Asquith P, Stokes P L et al. Cellular infiltrate of jejunal biopsies in adult coeliac disease (ACD) in relation to gluten withdrawal. *Gut* 1973;14(5):429. Not relevant to adherence
- Holmes G K, Asquith P, Stokes P L et al. Cellular infiltrate of jejunal biopsies in adult coeliac disease in relation to gluten withdrawal. *Gut* 1974;15(4):278-283. Not relevant to adherence
- Holmes G K, Prior P, Lane M R et al. Malignancy in coeliac disease--effect of a gluten free diet. *Gut* 1989;30(3):333-338. Not relevant to adherence
- Holmes G K, Stokes P L, Sorahan T M et al. Coeliac disease, gluten-free diet, and malignancy. *Gut* 1976;17(8):612-619. Not relevant to adherence
- Holmes G K. Non-malignant complications of coeliac disease. *Acta Paediatrica. Supplement* 1996;412:68-75. Not relevant to adherence
- Horvath K, Horn G. Tardyferon therapy in hyposiderosis of infancy and childhood. *Ther Hung* 1992;40(1):40-43. Not relevant to adherence
- Horvath-Stolarczyk A, Sidor K, Dziechciarz P et al. Assessment of emotional status, selected personality traits and depression in young adults with celiac disease. *Pediatr Wspolczesna* 2002;4(3):241-246. Not relevant to adherence
- Huff C. Celiac disease: helping families adapt. *Gastroenterology Nursing - the Official Journal of the Society of Gastroenterology Nurses and Associates* 1997;20(3):79-81. Not relevant to adherence
- Hussain G, Ali S, Iqbal M M et al. Study of coeliac disease in children. *J Coll Phys Surg Pak* 1999;9(2):81-84. Not relevant to adherence
- Ibbotson M. Gluten-free diets--helping patients to cope. *Prof Nurse* 1986;1(8):219-220. Not relevant to adherence
- Ibbotson M. Living with a gluten-free diet. *Prof Nurse* 1986;1(8):221-222. Not relevant to adherence
- Iliffe G D, Owen D A. An association between primary biliary cirrhosis and jejunal villous atrophy resembling celiac disease. *Dig Dis Sci* 1979;24(10):802-806. Not relevant to adherence
- Iovino P, Ciacci C, Sabbatini F et al. Esophageal impairment in adult celiac disease with steatorrhea. *Am J Gastroenterol* 1998;93(8):1243-1249. Not relevant to adherence
- Ivarsson A, Persson L A, Hernell O. Does breast-feeding affect the risk for coeliac disease?. *Adv Exp Med Biol* 2000;478:139-149. Not relevant to adherence
- Ivarsson A, Persson L A, Nystrom L et al. The Swedish coeliac disease epidemic with a prevailing twofold higher risk in girls compared to boys may reflect gender specific risk factors. *Eur J Epidemiol* 2003;18(7):677-684. Not relevant to adherence
- Janatuinen E K, Kempainen T A, Julkunen R J K et al. No harm from five year ingestion of oats in coeliac disease. *Gut* 2002;50(3):332-335. Not relevant to adherence
- Janatuinen E K, Kempainen T A, Pikkarainen P H et al. Lack of cellular and humoral immunological responses to oats in adults with coeliac disease. *Gut* 2000;46(3):327-331. Not relevant to adherence
- Janatuinen E K, Pikkarainen P H, Kempainen T A et al. A comparison of diets with and without oats in adults with celiac disease. *N Engl J Med* 1995;333(16):1033-1037. Not relevant to adherence
- Jansson U H, Gudjonsdottir A H, Ryd W et al. Two different doses of gluten show a dose-dependent response of enteropathy but not of serological markers during gluten challenge in children with coeliac disease. *Acta Paediatr* 2001;90(3):255-259. Not relevant to adherence

- Jarvinen T T, Kaukinen K, Laurila K et al. Intraepithelial lymphocytes in celiac disease. *Am J Gastroenterol* 2003;98(6):1332-1337. Not relevant to adherence
- Jessernigg G, Goriup U, Deutsch J et al. The importance of antibodies in the guidance of coeliac patients. *Jpgn* 2000; 31(Suppl 2):S65-S66. No correlations with other measures
- Jewell D P. Celiac disease. *Can J Gastroenterol* 2000;14(8):665-666. Not relevant to adherence
- Jodl J, Stepan J, Lojda Z. Diagnostic significance of determination of serum alkaline phosphatase intestinal isoenzyme activity in coeliac sprue in childhood. *Acta Universitatis Carolinae.Medica.Monographia* 1977;(78 Pt 2):65-70. Not relevant to adherence
- Johnston S D, Peter Watson R G, McMillan S A. Soda bread provocation test for subjects with transient serology for coeliac disease 3 years after a population screening survey. *Eur J Gastroenterol Hepatol* 2000;12(9):1013-1015. Not relevant to adherence
- Johnston S D, Smye M, Watson R P. Intestinal permeability tests in coeliac disease. *Clin Lab* 2001;47(3-4):143-150. Not relevant to adherence
- Johnston S D, Watson R G, McMillan S A et al. Coeliac disease detected by screening is not silent--simply unrecognized. *Q J Med* 1998;91(12):853-860. Not relevant to adherence
- Johnston S D, Watson R G, Middleton D et al. Genetic, morphometric and immunohistochemical markers of latent coeliac disease. *Eur J Gastroenterol Hepatol* 1999;11(11):1283-1288. Not relevant to adherence
- Jones P E, Peters T J. DNA synthesis by jejunal mucosa in responsive and non-responsive coeliac disease. *Br Med J* 1977;1(6069):1130-1131. Not relevant to adherence
- Joshi Preeti, Mofidi Shideh, Sicherer Scott H. Interpretation of commercial food ingredient labels by parents of food-allergic children. *J Allergy Clin Immunol* 2002;109(6):1019-1021. Not relevant to adherence
- Junqueira JC, Calcado AC, Percupe S. Compliance of coeliac pediatric patients in Rio De Janeiro Brazil. *J Pediatr Gastroenterol Nutr* 2000; 31(Suppl 2). No correlations with other measures
- Juto P, Fredrikzon B, Hernell O. Gliadin-specific serum immunoglobulins A, E, G, and M in childhood: Relation of small intestine mucosal morphology. *J Pediatr Gastroenterol Nutr* 1985;4(5):723-729. Monitoring not serology, EMA, tTG or biopsy based, or not promoting GFD adherence
- Kalayci A G, Kansu A, Girgin N et al. Bone mineral density and importance of a gluten-free diet in patients with celiac disease in childhood. *Pediatrics* 2001;108(5):E89 Not relevant to adherence
- Kalra K K, Jain N, Mittal S K. Management of celiac disease. *Indian J Pediatr* 1999;66(1 Suppl):S32-S36. Not relevant to adherence
- Kapuscinska A, Zalewski T, Chorzelski TP et al. Disease specificity and dynamics of changes in IgA class anti-endomysial antibodies in celiac disease. *J Pediatr Gastroenterol Nutr* 1987; 6(4):529-534. Not relevant to adherence
- Kastrup W, Andersson H, Gillberg R et al. Influence of gluten-free diet on the gastric condition in dermatitis herpetiformis. *Scand J Gastroenterol* 1985;20(1):39-45. Not relevant to adherence
- Katz K D. Celiac Disease - Current Clinical Considerations in Treatment and Avoidance of Nutritional Deficiencies. *Today's Ther Trends* 2003;21(4):379-389. Not relevant to adherence
- Kaukinen K, Collin P, Holm K et al. Wheat starch-containing gluten-free flour products in the treatment of coeliac disease and dermatitis herpetiformis. A long-term follow-up study. *Scand J Gastroenterol* 1999;34(2):163-169. Not relevant to adherence
- Kaukinen K, Salmi J, Lahtela J et al. No effect of gluten-free diet on the metabolic control of type 1 diabetes in patients with diabetes and celiac disease. *Diabetes Care* 1999;22(10):1747-1748. Not relevant to adherence
- Kelly CP, Feighery CF, Gallagher RB et al. Mucosal and systemic IgA anti-gliadin antibody in celiac disease. Contrasting patterns of response in serum, saliva, and intestinal secretions. *Dig Dis Sci* 1991; 36(6):743-751. Not relevant to adherence
- Kemppainen T A, Kosma V M, Janatuinen E K et al. Nutritional status of newly diagnosed celiac disease patients before and after the institution of a celiac disease diet--association with the grade of mucosal villous atrophy. *Am J Clin Nutr* 1998;67(3):482-487. Not relevant to adherence
- Kemppainen T, Kroger H, Janatuinen E et al. Bone recovery after a gluten-free diet: a 5-year follow-up study. *Bone* 1999;25(3):355-360. Not relevant to adherence
- Kemppainen T, Kroger H, Janatuinen E et al. Osteoporosis in adult patients with celiac disease. *Bone* 1999;24(3):249-255. Not relevant to adherence
- Kemppainen T, Uusitupa M, Janatuinen E et al. Intakes of nutrients and nutritional status in coeliac patients. *Scand J Gastroenterol* 1995;30(6):575-579. Not relevant to adherence
- Kennedy N P, Feighery C. Clinical features of coeliac disease today. *Biomed Pharmacother* 2000;54(7):373-380. Not relevant to adherence

- Khoshoo V, Bhan M K, Puri S et al. Serum anti-gliadin antibody profile in childhood protracted diarrhoea due to coeliac disease and other causes in a developing country. *Scand J Gastroenterol* 1989;24(10):1212-1216. Not relevant to adherence
- Khuffash F A, Barakat M H, Shaltout A A et al. Coeliac disease among children in Kuwait: difficulties in diagnosis and management. *Gut* 1987;28(12):1595-1599. Not relevant to adherence
- Kieffer M, Barnetson RS, Blackwell JN. Sequential studies of gliadin antibodies in patients with dermatitis herpetiformis. *Arch Dermatol Res* 1984; 276(2):74-77. No correlations with other measures
- Kieffer M. Serum antibodies to gliadin and other cereal proteins in patients with coeliac disease and dermatitis herpetiformis. *Dan Med Bull* 1985;32(5):251-262. Not relevant to adherence
- Kieslich M, Errazuriz G, Posselt H G et al. Brain white-matter lesions in celiac disease: a prospective study of 75 diet-treated patients. *Pediatrics* 2001;108(2):E21. Not relevant to adherence
- Kilander A F, Nilsson L A, Gillberg R. Serum antibodies to gliadin in coeliac disease after gluten withdrawal. *Scand J Gastroenterol* 1987;22(1):29-34. Monitoring not serology, EMA, tTG or biopsy based, or not promoting GFD adherence
- King David S. Psychological and behavioral effects of food and chemical exposure in sensitive individuals. *Nutr Health* 1984;3(3):137-151. Not relevant to adherence
- Kitts D, Yuan Y, Joneja J et al. Adverse reactions to food constituents: allergy, intolerance, and autoimmunity. *Can J Physiol Pharmacol* 1997;75(4):241-254. Not relevant to adherence
- Kjeldsen-Kragh J. Rheumatoid arthritis treated with vegetarian diets. *Am J Clin Nutr* 1999;70(3 Suppl):594S-600S. Not relevant to adherence
- Kleiner S M. Sense and food sensitivity: Coping with allergies and food intolerance. *Phys Sportsmed* 1998;26(5):105-106. Not relevant to adherence
- Kluge F, Koch HK, Grosse-Wilde H et al. Follow-up of treated adult celiac disease: clinical and morphological studies. *HepatoGastroenterology* 1982; 29(1):17-23. Not relevant to adherence
- Kohout P. Small bowel permeability in diagnosis of celiac disease and monitoring of compliance of a gluten-free diet (gut permeability in celiac disease). *Acta Medica (Hradec Kralove)* 2001;44(3):101-104. No monitoring measure of interest
- Kokkonen J, Viitanen A, Simila S. Coping with a coeliac diet after adolescence. *Helv Paediatr Acta* 1989;43(4):261-265. Not relevant to adherence
- Kolsteren M M, Koopman H M, Schalekamp G et al. Health-related quality of life in children with celiac disease. *Eur J Pediatr* 2001;138(4):593-595. Not relevant to adherence
- Korponay-Szabo I R, Kovacs J B, Lorincz M et al. Prospective significance of antiendomysium antibody positivity in subsequently verified celiac disease. *J Pediatr Gastroenterol Nutr* 1997;25(1):56-63. Not relevant to adherence
- Kuitunen M, Savilahti E. Gut permeability to human alpha-lactalbumin, beta-lactoglobulin, mannitol, and lactulose in celiac disease. *J Pediatr Gastroenterol Nutr* 1996;22(2):197-204. Not relevant to adherence
- Kumar P J, Walker-Smith J, Milla P et al. The teenage coeliac: follow up study of 102 patients. *Arch Dis Child* 1988;63(8):916-920. Not relevant to adherence
- Kumar P J. Commentary: are patients any better at adhering to a gluten-free diet?. *Ital J Gastroenterol Hepatol* 1997;29(4):310-311. Not relevant to adherence
- Kumar V, Jarzabek-Chorzelska M, Sulej J et al. Celiac disease and immunoglobulin A deficiency: How effective are the serological methods of diagnosis? *Clin Diagn Lab Immunol* 2002; 9(6):1295-1300. Not relevant to adherence
- Kumar V, Lerner A, Valeski J E et al. Endomysial antibodies in the diagnosis of celiac disease and the effect of gluten on antibody titers. *Immunol Invest* 1989;18(1-4):533-544. Not relevant to adherence
- Kutlu T, Brousse N, Rambaud C et al. Numbers of T cell receptor (TCR) alpha beta+ but not of TcR gamma delta+ intraepithelial lymphocytes correlate with the grade of villous atrophy in coeliac patients on a long term normal diet. *Gut* 1993;34(2):208-214. Not relevant to adherence
- Labrooy JT, Hohmann AW, Davidson GP et al. Intestinal and serum antibody in coeliac disease: a comparison using ELISA. *Clinical and Experimental Immunology* 1986; 66(3):661-668. Not relevant to adherence
- Lahteenoja H, Toivanen A, Viander M et al. Increase in T-cell subsets of oral mucosa: a late immune response in patients with treated coeliac disease?. *Scand J Immunol* 2000;52(6):602-608. Not relevant to adherence
- Lahteenoja H, Toivanen A, Viander M et al. Oral mucosal changes in coeliac patients on a gluten-free diet. *Eur J Oral Sci* 1998;106(5):899-906. Not relevant to adherence
- Lancaster-Smith M, Joyce S, Kumar P. Immunoglobulins in the jejunal mucosa in adult coeliac disease and dermatitis herpetiformis after the reintroduction of dietary gluten. *Gut* 1977;18(11):887-891. Not relevant to adherence

- Lancaster-Smith M, Kumar P, Clark M L et al. Antireticulin antibodies in dermatitis herpetiformis and adult coeliac disease. Their relationship to a gluten free diet and jejunal histology. *Br J Dermatol* 1975;92(1):37-42. Not relevant to adherence
- Lancaster-Smith M, Packer S, Kumar P J et al. Immunological phenomena in the jejunum and serum after reintroduction of dietary gluten in children with treated coeliac disease. *J Clin Pathol* 1976;29(7):592-597. Not relevant to adherence
- Langman M J. Can epidemiology help us prevent celiac disease?. *Gastroenterology* 1986;90(2):489-491. Not relevant to adherence
- Lankisch P G, Martinez Schramm A, Petersen F et al. Diagnostic intervals for recognizing celiac disease. *Z Gastroenterol* 1996;34(8):473-477. Not relevant to adherence
- Laurin P, Falth-Magnusson K, Sundqvist T. Increase in nitric oxide urinary products during gluten challenge in children with coeliac disease. *Scand J Gastroenterol* 2003;38(1):55-60. Not relevant to adherence
- Laurin P, Wolving M, Falth-Magnusson K. Even small amounts of gluten cause relapse in children with celiac disease. *J Pediatr Gastroenterol Nutr* 2002; 34(1):26-30. Not relevant to adherence
- Layer P, Keller J. Lipase supplementation therapy: Standards, alternatives, and perspectives. *Pancreas* 2003;26(1):1-7. Not relevant to adherence
- Le Quellec A, Clapie M, Callamand P et al. Circulating oxymodulin-like immunoreactivity in healthy children and children with celiac disease. *J Pediatr Gastroenterol Nutr* 1998;27(5):513-518. Not relevant to adherence
- Lehmann F G, Hillert U. Fecal intestinal alkaline phosphatase in coeliac disease. *Z Gastroenterol* 1980;18(7):381-388. Not relevant to adherence
- Lemieux B, Boivin M, Brossard J H et al. Normal parathyroid function with decreased bone mineral density in treated celiac disease. *Can J Gastroenterol* 2001;15(5):302-307. Not relevant to adherence
- Leonard S. No grain, no pain. *Nurs Times* 1999;95(8):69-70. Not relevant to adherence
- Levi S, Bjarnason I, Swinson C M et al. Malignant pancreatic somatostatinoma in a patient with dermatitis herpetiformis and coeliac disease. *Digestion* 1988;39(1):1-6. Not relevant to adherence
- Lewis C, Book L, Black J et al. Celiac disease and human leukocyte antigen genotype: Accuracy of diagnosis in self-diagnosed individuals, dosage effect, and sibling risk. *J Pediatr Gastroenterol Nutr* 2000;31(1):22-27. Not relevant to adherence
- Lifschitz C H, Polanco I, Lobb K. The urinary excretion of polyethylene glycol as a test for mucosal integrity in children with celiac disease: comparison with other noninvasive tests. *J Pediatr Gastroenterol Nutr* 1989;9(1):49-57. No monitoring measure of interest
- Lindberg T, Nilsson LA, Borulf S et al. Serum IgA and IgG gliadin antibodies and small intestinal mucosal damage in children. *J Pediatr Gastroenterol Nutr* 1985; 4(6):917-922. Not relevant to adherence
- Littlewood J M. Coeliac disease in childhood. *Bailliere's Clinical Gastroenterology* 1995;9(2):295-327. Not relevant to adherence
- Lloyd-Still J D. Chronic diarrhea of childhood and the misuse of elimination diets. *Eur J Pediatr* 1979;95(1):10-13. Not relevant to adherence
- Lohiniemi S, Maki M, Kaukinen K et al. Gastrointestinal symptoms rating scale in coeliac disease patients on wheat starch-based gluten-free diets. *Scand J Gastroenterol* 2000;35(9):947-949. Not relevant to adherence
- Lohiniemi S. Coeliac disease. Tricky to find, hard to treat, impossible to cure. *Lancet* 2001;358(Suppl):14. Not relevant to adherence
- Londei M, Quarantino S, Maiuri L. Celiac disease: A model autoimmune disease with gene therapy applications. *Hum Gene Ther* 2003;10(10):835-843. Not relevant to adherence
- Lorini R, Scotta M S, Cortona L et al. Celiac disease and type I (insulin-dependent) diabetes mellitus in childhood: follow-up study. *J Diabetes Complications* 1996;10(3):154-159. Not relevant to adherence
- Lovik A, Fluge Holsdal E R, Ek J et al. Dietary Treatment of Coeliac Disease. *Tidsskr Nor Laegeforen* 1999;119(13):1888-1891. Not relevant to adherence
- Lynch D A, Thornton J R, Axon A T. Acute fatty liver complicating coeliac disease. *Eur J Gastroenterol Hepatol* 1994;6(8):745-747. Not relevant to adherence
- Mackner L M, McGrath A M, Stark L J. Dietary recommendations to prevent and manage chronic pediatric health conditions: Adherence, intervention, and future directions. *J Dev Behav Pediatr* 2001;22(2):130-143. Not relevant to adherence
- Maffei H V, Kingston D, Hill I D et al. Histopathologic changes and the immune response within the jejunal mucosa in infants and children. *Pediatr Res* 1979;13(6):733-736. Not relevant to adherence
- Magliocca F M, Bonamico M, Petrozza V et al. A new morphological classification during follow-up in patients with celiac disease: a three-dimensional observation by

- scanning electron microscopy. *Histol Histopathol* 1996;11(2):343-350. Not relevant to adherence
- Magrath G, Hartland B V. Dietary recommendations for children and adolescents with diabetes: An implementation paper. *J Hum Nutr Diet* 1993;6(6):491-507. Not relevant to adherence
- Mainardi E, Montanelli A, Dotti M et al. Thyroid-related autoantibodies and celiac disease: A role for a gluten-free diet?. *J Clin Gastroenterol* 2002;35(3):245-248. Not relevant to adherence
- Maki M, Lahdeaho ML, Hallstrom O et al. Postpubertal gluten challenge in coeliac disease. *Arch Dis Child* 1989;64(11):1604-1607. Not relevant to adherence
- Maki M, Sulkanen S, Collin P. Antibodies in relation to gluten intake. *Dig Dis* 1998;16(6):330-332. Review article
- Mariani P, Viti M G, Montuori M et al. The gluten-free diet: a nutritional risk factor for adolescents with celiac disease?. *J Pediatr Gastroenterol Nutr* 1998;27(5):519-523. Not relevant to adherence
- Matek Z, Jungvirth-Hegedus M, Kolacek S. Epidemiology of coeliac disease in children in one Croatian county: possible factors that could affect the incidence of coeliac disease and adherence to a gluten-free diet (Part II). *Coll Antropol* 2000;24(2):397-404. Not relevant to adherence
- Mauro A, Orsi L, Mortara P et al. Cerebellar Syndrome in Adult Celiac Disease With Vitamin E Deficiency. *Acta Neurol Scand* 1991;84(2):167-170. Not relevant to adherence
- Mautalen C, Gonzalez D, Mazure R et al. Effect of treatment on bone mass, mineral metabolism, and body composition in untreated celiac disease patients. *Am J Gastroenterol* 1997;92(2):313-318. Not relevant to adherence
- McCarthy D M, Coleman M. Response of intestinal mucosa to gluten challenge in autistic subjects. *Lancet* 1979;2(8148):877-878. Not relevant to adherence
- McCrae W M, Eastwood M A, Martin M R et al. Neglected coeliac disease. *Lancet* 1975;1(7900):187-190. Not relevant to adherence
- McElvaney NG, Duignan R, Fielding JF. Coeliac disease: clinical presentations, correlations of dietary compliance, symptomatic response and repeat biopsy findings. *Ulster Med J* 1992; 61(2):134-138. No correlations with other measures
- McFarlane X A, Bhalla A K, Robertson D A. Effect of a gluten free diet on osteopenia in adults with newly diagnosed coeliac disease. *Gut* 1996;39(2):180-184. Not relevant to adherence
- McLoughlin R, Sebastian S S, Qasim A et al. Coeliac disease in Europe. *Aliment Pharmacol Ther Suppl* 2003;18(3):45-48. Not relevant to adherence
- McMillan SA, Dickey W, Douglas JP et al. Transthyretin values correlate with mucosal recovery in patients with coeliac disease taking a gluten free diet. *J Clin Pathol* 2001; 54(10):783-786. Not relevant to adherence
- McNeish A S, Harms H K, Rey J et al. The diagnosis of coeliac disease. A commentary on the current practices of members of the European Society for Paediatric Gastroenterology and Nutrition (ESPGAN). *Arch Dis Child* 1979;54(10):783-786. Not relevant to adherence
- McNeish A S. Coeliac disease: Duration of gluten-free diet. *Arch Dis Child* 1980;55(2):110-111. Not relevant to adherence
- McNicholl B. Coeliac disease: ecology, life history and management. *Human Nutrition.Applied Nutrition* 1986;40(Suppl 1):55-60. Not relevant to adherence
- McNicholl B. Management of coeliac disease. *Midwife Health Visit Community Nurse* 1986;22(10):361-364. Not relevant to adherence
- McPhillips J. Understanding coeliac disease: symptoms and long-term risks. *Br J Nurs* 2000;9(8):479-483. Not relevant to adherence
- Mearin M L, Koninckx C R, Biemond I et al. Influence of genetic factors on the serum levels of antigliadin antibodies in celiac disease. *J Pediatr Gastroenterol Nutr* 1984;3(3):373-377. Not relevant to adherence
- Meyer D, Stavropolous S, Diamond B et al. Osteoporosis in a north american adult population with celiac disease. *Am J Gastroenterol* 2001;96(1):112-119. Not relevant to adherence
- Michalski J P, McCombs C C. Celiac disease: Clinical features and pathogenesis. *Am J Med Sci* 1994;307(3):204-211. Not relevant to adherence
- Mitchell R M S, Robinson T J. Monitoring dietary compliance in coeliac disease using red cell distribution width. *Int J Clin Pract* 2002;56(4):249-250. No monitoring measure of interest
- Mitchison H C, al Mardini H, Gillespie S et al. A pilot study of fluticasone propionate in untreated coeliac disease. *Gut* 1991;32(3):260-265. Not relevant to adherence
- Mitt K, Uibo O. Low cereal intake in Estonian infants: The possible explanation for the low frequency of coeliac disease in Estonia. *Eur J Clin Nutr* 1998;52(2):85-88. Not relevant to adherence
- Mobacken H, Andersson H, Gillberg R. Gluten-free diet in clinical practice: a Scandinavian perspective. *Clin Dermatol* 1991;9(3):415-419. Not relevant to adherence

Mokhallalaty M, Debek A, Naja Z et al. Celiac disease at Makassed General Hospital (8 years of experience). *Revue Medicale Libanaise* 2002;14(2-3):49-53. Not relevant to adherence

Moll-Kotowski M, Stern M. Dietary attitude and follow-up in coeliac patients diagnosed 1964-1986. *Monatsschr Kinderheilkd* 1995; 143(2):142-148. Not relevant to adherence

Molteni N, Bardella M T, Vezzoli G et al. Intestinal calcium absorption as shown by stable strontium test in celiac disease before and after gluten-free diet. *Am J Gastroenterol* 1995;90(11):2025-2028. Not relevant to adherence

Monteiro E, Menezes M L, Magalhaes Ramalho P. Anti-reticulon antibodies: a diagnostic and monitoring test for childhood coeliac disease. *Scand J Gastroenterol* 1986;21(8):955-957. Monitoring not serology, EMA, tTG or biopsy based, or not promoting GFD adherence

Mora S, Barera G, Beccio S et al. A prospective, longitudinal study of the long-term effect of treatment on bone density in children with celiac disease. *Eur J Pediatr* 2001;139(4):516-521. Not relevant to adherence

Mora S, Barera G, Beccio S et al. Bone density and bone metabolism are normal after long-term gluten-free diet in young celiac patients. *Am J Gastroenterol* 1999;94(2):398-403. Not relevant to adherence

Mora S, Barera G, Ricotti A et al. Reversal of low bone density with a gluten-free diet in children and adolescents with celiac disease. *Am J Clin Nutr* 1998;67(3):477-481. Not relevant to adherence

Mora S, Weber G, Barera G et al. Effect of gluten-free diet on bone mineral content in growing patients with celiac disease. *Am J Clin Nutr* 1993;57(2):224-228. Not relevant to adherence

Morley J E. Pathophysiology of anorexia. *Clin Geriatr Med* 2002;18(4):661-673. Not relevant to adherence

Morris M A, Ciclitira P J. Coeliac disease. *J R Coll Physicians Lond* 1997;31(6):614-618. Not relevant to adherence

Morrioni M, Sbarbati A, D'Angelo G et al. Scanning electron microscopy of the small intestine mucosa in children with celiac disease after long-term dietary treatment. *Scanning Microsc* 1989;3(4):1161-1166. Not relevant to adherence

Mortimer P E, Stewart J S, Norman A P et al. Follow-up study of coeliac disease. *Br Med J* 1968;3(609):7-9. Not relevant to adherence

Mowat A M. Coeliac disease - A future for peptide therapy?. *Lancet* 2000;356(9226):270-271. Not relevant to adherence

Mulder C J J, Wahab P J, Moshaver B et al. Refractory coeliac disease: A window between coeliac disease and enteropathy associated T cell lymphoma. *Scandinavian Journal of Gastroenterology, Supplement* 2000;35(232):32-37. Not relevant to adherence

Murphy D. Celiac sprue. *Gastroenterology Nursing - the Official Journal of the Society of Gastroenterology Nurses and Associates* 1995;18(4):133-137. Not relevant to adherence

Murphy M S, Sood M, Johnson T. Use of the lactose H2 breath test to monitor mucosal healing in coeliac disease. *Acta Paediatr* 2002;91(2):141-144. No monitoring measure of interest

Murray J A. The widening spectrum of celiac disease. *Am J Clin Nutr* 1999;69(3):354-365. Not relevant to adherence

Mustalahti Kirsii, Lohiniemi Susanna, Collin Pekka et al. Gluten-free diet and quality of life in patients with screen-detected celiac disease. *Effective Clinical Practice - Ecp* 2002;5(3):105-113. Not relevant to adherence

Muzzo S, Burrows R, Burgueno M et al. Effect of calcium and vitamin D supplementation on bone mineral density of celiac children. *Nutr Res* 2000;20(9):1241-1247. Not relevant to adherence

Naeslund G K, Fredrikson M, Hellenius M L et al. Determinants of Compliance in Men Enrolled in a Diet and Exercise Intervention Trial: a Randomized, Controlled Study. *Patient Education & Counseling* 1996;29(3):247-256. Not relevant to adherence

Nash Samantha. Does exclusive breast-feeding reduce the risk of coeliac disease in children?. *Br J Community Nurs* 2003;8(3):127-132. Not relevant to adherence

Naveh Y, Ken-Dror A, Zinder O et al. Comparative reliability of D-xylose absorption and serum beta-carotene measurements in small intestinal disease. *J Pediatr Gastroenterol Nutr* 1986;5(2):210-213. Not relevant to adherence

Nehra V. New clinical issues in celiac disease. *Gastroenterol Clin North Am* 1998;27(2):453-465. Not relevant to adherence

Nieminen U, Kahri A, Savilahti E et al. Duodenal disaccharidase activities in the follow-up of villous atrophy in coeliac disease. *Scand J Gastroenterol* 2001;36(5):507-510. Not relevant to adherence

Norgard B, Fonager K, Sorensen H T et al. Birth outcomes of women with celiac disease: A nationwide historical cohort study. *Am J Gastroenterol* 1999;94(9):2435-2440. Not relevant to adherence

not found, in reference. Nutritional problems and controversies in gastrointestinal diseases. *Nutrition in Practice* 1982;2(1):3-32. Not relevant to adherence

Not relevant to adherence

Not T, Tommasini A, Tonini G et al. Undiagnosed coeliac disease and risk of autoimmune disorders in subjects with type I diabetes mellitus. *Diabetologia* 2001;44(2):151-155. Not relevant to adherence

Novacek G, Miehsler W, Wrba F et al. Prevalence and clinical importance of hypertransaminasaemia in coeliac disease. *Eur J Gastroenterol Hepatol* 1999;11(3):283-288. Not relevant to adherence

Nowowiejska B, Kaczmarek M, Dabrowska E J. A long-term study in children with a recognized gluten intolerance. *Rocz Akad Med Bialymst* 1995;40(3):580-587. No monitoring measure of interest

Ogborn A D. Pregnancy in patients with coeliac disease. *Br J Obstet Gynaecol* 1975;82(4):293-296. Not relevant to adherence

O'Halloran E T, Read M, Morrissey-Walsh E M. Coeliac disease in children: Problems in diagnosis and management. *Ir Med J* 1985;78(7):188-191. Not relevant to adherence

O'Leary Clare, Wieneke Peter, Buckley Sarah et al. Celiac disease and irritable bowel-type symptoms. *Am J Gastroenterol* 2002;97(6):1463-1467. Not relevant to adherence

Olives PrJ. Coeliac disease and gluten intolerance: New data for a new method of treatment. *Rev Med Liban* 2000;12(3):127-128. Not relevant to adherence

O'Mahony S, Nawroz I M, Ferguson A. Coeliac disease and collagenous colitis. *Postgrad Med J* 1990;66(773):238-241. Not relevant to adherence

Ott D J. Celiac disease: biopsy or enteroclysis better for evaluating response to a gluten-free diet?. *Am J Gastroenterol* 1997;92(4):715-716. Review article

Packer S, Rowlatt R J, Harries J T. Proceedings: Reappraisal of a past diagnosis of "coeliac disease". *Arch Dis Child* 1974;49(10):819. Not relevant to adherence

Paerregaard A, Vilien M, Krasilnikoff P A et al. Supposed coeliac disease during childhood and its presentation 14-38 years later. *Scand J Gastroenterol* 1988;23(1):65-70. Not relevant to adherence

Page S R, Lloyd C A, Hill P G et al. The prevalence of coeliac disease in adult diabetes mellitus. *Q J Med* 1994;87(10):631-637. Not relevant to adherence

Parker S L, Sussman G L, Kronld M. Dietary aspects of adverse reactions to foods in adults. *Cmaj - Canadian Medical Association Journal = Journal De L'association Medicale Canadienne* 1988;139(8):711-718. Not relevant to adherence

Paterson Heather. Plant foods for coeliacs. *Food Nutr Notes Rev* 1975;32(11-12):205-209. Not relevant to adherence

Patin NM, Johnson F, Kirks BA. Promoting dietary compliance in gluten-intolerant children. *J Nutr Educ* 1989; 21(2):100D. Not relevant to adherence

Patwari A K, Anand V K, Kapur Gaurav et al. Clinical and nutritional profile of children with celiac disease. *Indian Pediatr* 2003;40(4):337-342. Not relevant to adherence

Peraaho M, Kaukinen K, Paasikivi K et al. Wheat-starch-based gluten-free products in the treatment of newly detected coeliac disease: prospective and randomized study. *Aliment Pharmacol Ther* 2003;17(4):587-594. Not relevant to adherence

Peters Ulrike, Askling Johan, Gridley Gloria et al. Causes of death in patients with celiac disease in a population-based Swedish cohort. *Arch Intern Med* 2003;163(13):1566-1572. Not relevant to adherence

Pistorius L R, Sweidan W H, Purdie D W et al. Coeliac disease and bone mineral density in adult female patients. *Gut* 1995;37(5):639-642. Not relevant to adherence

Polito C, Olivieri A N, Marchese L et al. Weight overgrowth of coeliac children on gluten-free diet. *Nutr Res* 1992;12(3):353-358. Not relevant to adherence

Pruessner H T. Detecting celiac disease in your patients. *Am Fam Physician* 1998;57(5):1023-1034. Not relevant to adherence

Pueschel S M. Gastrointestinal concerns and nutritional issues in persons with Down syndrome. *Down Syndrome Quarterly* 1999;4(4):1-11. Not relevant to adherence

Pynnoenen P, Isometsae E T, Verkasalo M A et al. Untreated Celiac Disease and Development of Mental Disorders in Children and Adolescents. *Psychosomatics: Journal of Consultation Liaison Psychiatry* 2002;43(4):331-334. Not relevant to adherence

Radzikowski A, Kulus M, Krauze A et al. Growth, bone age and nutritional status in neglected coeliac disease. *Materia Medica Polona. Polish Journal of Medicine and Pharmacy* 1991;23(2):146-150. Not relevant to adherence

Rautonen J, Rautonen N, Savilahti E. Antibodies to gliadin in children with coeliac disease. *Acta Paediatr Scand* 1991;80(12):1200-1206. Monitoring not serology, EMA, tTG or biopsy based, or not promoting GFD adherence

Rea F, Polito C, Marotta A et al. Restoration of body composition in celiac children after one year of gluten-free

- diet. *J Pediatr Gastroenterol Nutr* 1996;23(4):408-412. Not relevant to adherence
- Read M, O'Halloran ET, O'Sullivan C. Coeliac disease in adolescents/young adults: difficulties in monitoring. *Br J Biomed Sci* 2000; 57(3):217-221. No correlations with other measures
- Reeves G E M, Burns C, Hall S T et al. The measurement of IgA and IgG transglutaminase antibodies in celiac disease: A comparison with current diagnostic methods. *Pathology* 2000;32(3):181-185. Monitoring not serology, EMA, tTG or biopsy based, or not promoting GFD adherence
- Reifen R, Reif S, Buskila D et al. Transthyretin: a marker for celiac disease activity. *J Med* 1998;29(1-2):30-36. No monitoring measure of interest
- Reunala T, Chorzelski T P, Viander M et al. IgA anti-endomysial antibodies in dermatitis herpetiformis: correlation with jejunal morphology, gluten-free diet and anti-gliadin antibodies. *Br J Dermatol* 1987;117(2):185-191. Not relevant to adherence
- Ricart E, Bouma G, Salvador Pen et al. The therapeutic spectrum of infliximab and tumor necrosis factor immunomodulation in chronic inflammatory diseases. *Drugs Today* 2002;38(11):725-744. Not relevant to adherence
- Robert M E, Ament M E, Weinstein W M. The histologic spectrum and clinical outcome of refractory and unclassified sprue. *Am J Surg Pathol* 2000;24(5):676-687. Not relevant to adherence
- Roizen N J, Patterson D. Down Syndrome. *Lancet* 2003;361(9365):1281-1289. Not relevant to adherence
- Rolles C J, Anderson M, McNeish A S. Confirming persistence of gluten intolerance in children diagnosed as having coeliac disease in infancy. *Arch Dis Child* 1975;50(4):259-263. Not relevant to adherence
- Rolles C J. Proceedings: Usefulness of a modified D-xylose absorption test in the preliminary diagnosis of coeliac disease and its later confirmation. *Arch Dis Child* 1973;48(10):825 Not relevant to adherence
- Romaldini Ceres C, Barbieri Dorina, Okay Thelma S et al. Serum soluble interleukin-2 receptor, interleukin-6, and tumor necrosis factor-alpha levels in children with celiac disease: response to treatment. *J Pediatr Gastroenterol Nutr* 2002;35(4):513-517. Monitoring not serology, EMA, tTG or biopsy based, or not promoting GFD adherence
- Rosekrans P C, Meijer C J, Polanco I et al. Long-term morphological and immunohistochemical observations on biopsy specimens of small intestine from children with gluten-sensitive enteropathy. *J Clin Pathol* 1981;34(2):138-144. Not relevant to adherence
- Roter D L, Hall J A, Merisca R et al. Effectiveness of Interventions to Improve Patient Compliance - a Meta-Analysis. *Med Care* 1998;36(8):1138-1161. Not relevant to adherence
- Russell J A. Osteomalacic myopathy. *Muscle Nerve* 1994;17(6):578-580. Not relevant to adherence
- Ryan J. Coeliac disease. Update 2000. *Aust Fam Physician* 2000;29(9):835-838. Not relevant to adherence
- Sampson H A. 9. Food allergy. *J Allergy Clin Immunol* 2003;111(2 Suppl 2):S540-S547. Not relevant to adherence
- Sanders S W, Zone J J. The relationship between dapsone dose, serum concentration and disease severity in dermatitis herpetiformis. *Arzneim-Forsch Drug Res* 1986;36(1):146-149. Not relevant to adherence
- Sategna Guidetti C, Solerio E, Scaglione N et al. Duration of gluten exposure in adult coeliac disease does not correlate with the risk for autoimmune disorders. *Gut* 2001;49(4):502-505. Not relevant to adherence
- Sategna Guidetti, Carla Scaglione, Nadia Martini et al. Red cell distribution width as a marker of coeliac disease: a prospective study. *Eur J Gastroenterol Hepatol* 2002;14(2):177-181. Not relevant to adherence
- Sategna-Guidetti C, Grosso SB, Bruno M et al. Is human umbilical cord the most suitable substrate for the detection of endomysium antibodies in the screening and follow-up of coeliac disease? *Eur J Gastroenterol Hepatol* 1997; 9(7):657-660. Not relevant to adherence
- Sategna-Guidetti C, Grosso SB, Grosso S et al. The effects of 1-year gluten withdrawal on bone mass, bone metabolism and nutritional status in newly-diagnosed adult coeliac disease patients. *Alimentary Pharmacology & Therapeutics* 2000; 14(1):35-43. No correlations with other measures
- Sategna-Guidetti C, Volta U, Ciacci C et al. Prevalence of thyroid disorders in untreated adult celiac disease patients and effect of gluten withdrawal: an Italian multicenter study. *Am J Gastroenterol* 2001;96(3):751-757. Not relevant to adherence
- Scalici C, Manzoni D, Licastro G et al. Celiac disease in the pediatric age, psychological difficulties experienced on the gluten-free diet. A preliminary investigation at the Clinic for Celiac Disease of the "G. Di Cristina" Hospital ARNAS, Palermo, Italy. *Arch Mediterr Med* 2003;19(1):63-66. Not relevant to adherence
- Schenk E A, Samloff I M. Clinical and morphologic changes following gluten administration to patients with treated celiac disease. *Am J Pathol* 1968;52(3):579-593. Not relevant to adherence
- Schmitz J. Is celiac disease a lifelong disorder?. *Clinical and Investigative Medicine. Medecine Clinique Et*

- Experimentale 1996;19(5):352-356. Not relevant to adherence
- Schutz S M, Stroebel J, Schutz E M et al. Celiac sprue. Diagnosis and diet: keys to recovery. *N C Med J* 1994;55(1):32-36. Not relevant to adherence
- Schwartz M K, Sleisenger M H, Pert J H et al. The effect of a gluten-free diet on fat, nitrogen, and mineral metabolism in patients with sprue. *Gastroenterology* 1968;54(4):Suppl Not relevant to adherence
- Scott E M, Gaywood I, Scott B B. Guidelines for osteoporosis in coeliac disease and inflammatory bowel disease. *British Society of Gastroenterology. Gut* 2000;46(Suppl 1):-1. Not relevant to adherence
- Scott H, Brandtzaeg P. Pathogenesis of food protein intolerance. *Acta Paediatr Scand* 1989;(Suppl 351):48-52. Not relevant to adherence
- Sdepanian V L, Morais M B, Scaletsky I C A et al. Evaluation of theoretical knowledge of celiac disease and practical knowledge in preparing gluten-free foods by celiac patients. *Pediatrics* 2001;21(8):39-44. Not relevant to adherence
- Secker-Walker R H, Morrow AL, Kresnow M J, Flynn B S. Family Physician's Attitudes About Dietary Advice. *Fam Pract Res J* 1991;11(2):161-170. Not relevant to adherence
- Seraphin P, Mobarhan S. Mortality in patients with celiac disease. *Nutr Rev* 2002;60(4):116-118. Not relevant to adherence
- Shamir R, Levine A, Yalon-Hacohen M et al. Faecal occult blood in children with coeliac disease. *Eur J Pediatr* 2000;159(11):832-834. Not relevant to adherence
- Sheldon W. Prognosis in early adult life of coeliac children treated with a gluten-free diet. *Br Med J* 1969;2(654):401-404. Not relevant to adherence
- Sher K S, Mayberry J F. Female fertility, obstetric and gynaecological history in coeliac disease: a case control study. *Acta Paediatrica. Supplement* 1996;41276-77. Not relevant to adherence
- Shmerling DH, Franckx J. Childhood celiac disease: a long-term analysis of relapses in 91 patients. *J Pediatr Gastroenterol Nutr* 1986; 5(4):565-569. Not relevant to adherence
- Sicherer S H, Sampson H A. Food hypersensitivity and atopic dermatitis: Pathophysiology, epidemiology, diagnosis, and management. *J Allergy Clin Immunol* 1999;104(3 II):S114-S122. Not relevant to adherence
- Signore A, Chianelli M, Annovazzi A et al. Imaging active lymphocytic infiltration in coeliac disease with iodine-123-interleukin-2 and the response to diet. *European Journal of Nuclear Medicine* 2000; 27(1):18-24. No correlations with other measures
- Silink M. How should we manage celiac disease in childhood diabetes?. *Pediatr Diabetes* 2001;2(3):95-97. Not relevant to adherence
- Sklar M, Kirsner J B. Assessing and interviewing the elderly: Interpretation of signs and symptoms. *Bailliere's Best Pract Res Clin Gastroenterol* 2001;15(6):851-867. Not relevant to adherence
- Smecul E, Gonzalez D, Mautalen C et al. Longitudinal study on the effect of treatment on body composition and anthropometry of celiac disease patients. *Am J Gastroenterol* 1997;92(4):639-643. Not relevant to adherence
- Spiller R C. Postinfectious irritable bowel syndrome. *Gastroenterology* 2003;124(6):1662-1671. Not relevant to adherence
- Spollett G R. Nutritional management of common gastrointestinal problems. *Nurse Pract Forum* 1994;5(1):24-27. Not relevant to adherence
- Srinivasan U, Jones E, Weir D G et al. Lactase enzyme, detected immunohistochemically, is lost in active celiac disease, but unaffected by oats challenge. *Am J Gastroenterol* 1999;94(10):2936-2941. Not relevant to adherence
- Stahlberg MR, Savilahti E, Siimes MA. Iron deficiency in coeliac disease is mild and it is detected and corrected by gluten-free diet. *Acta Paediatr Scand* 1991; 80(2):190-193. Not relevant to adherence
- Stenhammar L, Brandt A, Wagermark J. A family study of coeliac disease. *Acta Paediatr Scand* 1982;71(4):625-628. Not relevant to adherence
- Stenhammar L, Kilander A F, Nilsson L A et al. Serum gliadin antibodies for detection and control of childhood coeliac disease. *Acta Paediatr Scand* 1984;73(5):657-663. Monitoring not serology, EMA, tTG or biopsy based, or not promoting GFD adherence
- Stenhammar L, Stromberg L, Kilander A F et al. Plasma enteroglucagon in the control of childhood celiac disease. *J Pediatr Gastroenterol Nutr* 1985;4(2):325-330. Not relevant to adherence
- Stenhammar L. Transient gastro-intestinal disorders during infancy and early childhood. A follow-up study with special reference to coeliac disease. *Acta Paediatr Scand* 1981;70(3):383-387. Not relevant to adherence
- Stern M, Ciclitira P J, van Eckert R et al. Analysis and clinical effects of gluten in coeliac disease. *Eur J Gastroenterol Hepatol* 2001;13(6):741-747. Not relevant to adherence

- Stern M, Fischer K, Gruettner R. Gliadin antibodies in coeliac disease. *Acta Paediatr Belg* 1977;30(4):252. Monitoring not serology, EMA, tTG or biopsy based, or not promoting GFD adherence
- Stewart J S. Clinical and morphologic response to gluten withdrawal. *Clin Gastroenterol* 1974;3(1):109-126. Not relevant to adherence
- Stewart Truswell A. Therapeutic diets. *Br Med J* 1985;291(6498):807-811. Not relevant to adherence
- Storsrud S, Olsson M, Arvidsson Lenner R et al. Adult coeliac patients do tolerate large amounts of oats. *Eur J Clin Nutr* 2003;57(1):163-169. Not relevant to adherence
- Storsrud Stine, Hulthen Lena R, Lenner Ragnhild A. Beneficial effects of oats in the gluten-free diet of adults with special reference to nutrient status, symptoms and subjective experiences. *Br J Nutr* 2003;90(1):101-107. Not relevant to adherence
- Sullivan A. Coeliac disease. *Nursing Standard (Royal College of Nursing (Great Britain) - 1987)* 1999;14(11):48-52. Not relevant to adherence
- Sutton G. Coeliac disease: Testing the New Zealand iceberg. *N Z J Med Lab Sci* 2000; 54(2):46-48. No correlations with other measures
- Szathmari M, Tulassay T, Arato A et al. Bone mineral content and density in asymptomatic children with coeliac disease on a gluten-free diet. *Eur J Gastroenterol Hepatol* 2001;13(4):419-424. Not relevant to adherence
- Tai V, Crowe M, O'Keefe S. Celiac disease in older people. *J Am Geriatr Soc* 2000;48(12):1690-1696. Not relevant to adherence
- Taylor S L, Hefle S L. Ingredient and labeling issues associated with allergenic foods. *Allergy* 2001;56(Suppl 67):64-69. Not relevant to adherence
- Teeffelen-Heithoff A. Dietetic treatment of celiac disease. *Monatsschr Kinderheilkd* 2003;151(7):719-725. Not relevant to adherence
- Thalayasingam B. Coeliac disease as a cause of osteomalacia and rickets in the Asian immigrant population. *Br Med J* 1985;290(6475):1146-1147. Not relevant to adherence
- Thomas T. Helping coeliac disease patients adapt to a gluten-free diet. *Community Nurse* 2000;6(6):19-22. Not relevant to adherence
- Thompson T. Do oats belong in a gluten-free diet?. *J Am Diet Assoc* 1997;97(12):1413-1416. Not relevant to adherence
- Thompson T. Questionable foods and the gluten-free diet: survey of current recommendations. *J Am Diet Assoc* 2000;100(4):463-465. Not relevant to adherence
- Thompson T. Wheat starch, gliadin, and the gluten-free diet. *J Am Diet Assoc* 2001;101(12):1456-1459. Not relevant to adherence
- Thornquist H, Jacobsen GS, Dahl LB et al. Coeliac disease and gluten-free diet: a following-up study of fifteen young adults. *Ann Nutr Metab* 1993; 37(6):295-301. Not relevant to adherence
- Tonder M, Sorlie D, Kearney M S. Adult coeliac disease: a case with ulceration, dermatitis herpetiformis and reticulosarcoma. *Scand J Gastroenterol* 1976;11(1):107-111. Not relevant to adherence
- Tonutti E, Visentini D, Bizzaro N et al. The role of antitissue transglutaminase assay for the diagnosis and monitoring of coeliac disease: a French-Italian multicentre study. *J Clin Pathol* 2003;56(5):389-393. Not relevant to adherence
- Trewby P N, Chipping P M, Palmer S J et al. Splenic atrophy in adult coeliac disease: is it reversible?. *Gut* 1981;22(8):628-632. Not relevant to adherence
- Troncone R, Caputo N, Micillo M et al. Immunologic and intestinal permeability tests as predictors of relapse during gluten challenge in childhood coeliac disease. *Scand J Gastroenterol* 1994;29(2):144-147. Not relevant to adherence
- Troncone R, Greco L, Mayer M et al. In siblings of celiac children, rectal gluten challenge reveals gluten sensitization not restricted to celiac HLA. *Gastroenterology* 1996;111(2):318-324. Not relevant to adherence
- Troncone R, Starita A, Coletta S et al. Antigliadin antibody, D-xylose, and cellobiose/mannitol permeability tests as indicators of mucosal damage in children with coeliac disease. *Scand J Gastroenterol* 1992;27(8):703-706. No monitoring measure of interest
- Troncone Riccardo, Franzese Adriana, Mazzarella Giuseppe et al. Gluten sensitivity in a subset of children with insulin dependent diabetes mellitus. *Am J Gastroenterol* 2003;98(3):590-595. Not relevant to adherence
- Tursi A, Brandimarte G, Giorgetti GM. Sorbitol H2-breath test versus anti-endomysium antibodies to assess histological recovery after gluten-free diet in coeliac disease. *Digestive and Liver Disease - Official Journal of the Italian Society of Gastroenterology and the Italian Association for the Study of the Liver* 2002; 34(12):846-850. No correlations with other measures
- Tursi Antonio, Brandimarte Giovanni, Giorgetti GianMarco. High prevalence of small intestinal bacterial overgrowth in celiac patients with persistence of

- gastrointestinal symptoms after gluten withdrawal. *Am J Gastroenterol* 2003;98(4):839-843. Not relevant to adherence
- Tursi Antonio, Brandimarte Giovanni. The symptomatic and histologic response to a gluten-free diet in patients with borderline enteropathy. *J Clin Gastroenterol* 2003;36(1):13-17. Not relevant to adherence
- Twist S R, Hackett A F. An investigation of some implications of coeliac disease. *J Hum Nutr Diet* 1992;5(6):343-350. Not relevant to adherence
- Uil J J, van Elburg R M, van Overbeek F M et al. Follow-up of treated coeliac patients: sugar absorption test and intestinal biopsies compared. *Eur J Gastroenterol Hepatol* 1996;8(3):219-223. No monitoring measure of interest
- Usai P, Minerba L, Marini B et al. Case control study on health-related quality of life in adult coeliac disease. *Digestive and Liver Disease - Official Journal of the Italian Society of Gastroenterology and the Italian Association for the Study of the Liver* 2002;34(8):547-552. Not relevant to adherence
- Vainio E, Kosnai I, Hallstrom O et al. Antigliadin and antireticulin antibodies in children with dermatitis herpetiformis. *J Pediatr Gastroenterol Nutr* 1986;5(5):735-739. Not relevant to adherence
- Valdimarsson T, Lofman O, Toss G et al. Reversal of osteopenia with diet in adult coeliac disease. *Gut* 1996;38(3):322-327. Not relevant to adherence
- Valdimarsson T, Toss G, Lofman O et al. Three years' follow-up of bone density in adult coeliac disease: significance of secondary hyperparathyroidism. *Scand J Gastroenterol* 2000;35(3):274-280. Not relevant to adherence
- van den, Bosch H C, Tham R T et al. Celiac disease: small-bowel enteroclysis findings in adult patients treated with a gluten-free diet. *Radiology* 1996;201(3):803-808. Not relevant to adherence
- Varkonyi A, Boda M, Endreffy E et al. Coeliac disease: always something to discover. *Scandinavian Journal of Gastroenterology. Supplement* 1998;228:122-129. Not relevant to adherence
- Vazquez H, Smecul E, Flores D et al. Relation between cigarette smoking and celiac disease: evidence from a case-control study. *Am J Gastroenterol* 2001;96(3):798-802. Not relevant to adherence
- Vermeer B J, Lindeman J, Harst-Oostveen C J et al. The immunoglobulin-bearing cells in the lamina propria and the clinical response to a gluten-free diet in dermatitis herpetiformis. *Archives for Dermatological Research. Archiv Fur Dermatologische Forschung* 1977;258(3):223-230. Not relevant to adherence
- Vermeire E, Hearnshaw H, Van Royen P et al. Patient Adherence to Treatment: Three Decades of Research. A Comprehensive Review. *J Clin Pharm Ther* 2001;26(5):331-342. Not relevant to adherence
- Visakorpi J K, Kuitunen P, Savilahti E. Frequency and nature of relapses in children suffering from the malabsorption syndrome with gluten intolerance. *Acta Paediatr Scand* 1970;59(5):481-486. Not relevant to adherence
- Vogelsang H, Propst A, Dragosics B et al. Diagnosis and therapy of celiac disease in adolescence and adulthood. *Z Gastroenterol* 2002;40(7):1-7. Not relevant to adherence
- Vogelsang H, Schwarzenhofer M, Oberhuber G. Changes in gastrointestinal permeability in celiac disease. *Dig Dis* 1998;16(6):333-336. Review article
- Volta U, Cassani F, De Franchis R et al. Antibodies to gliadin in adult coeliac disease and dermatitis herpetiformis. *Digestion* 1984;30(4):263-270. Monitoring not serology, EMA, tTG or biopsy based, or not promoting GFD adherence
- Volta U, De Giorgio R, Petrolini N et al. Clinical findings and anti-neuronal antibodies in coeliac disease with neurological disorders. *Scand J Gastroenterol* 2002;37(11):1276-1281. Not relevant to adherence
- Vuoristo M, Tilvis R, Miettinen T A. Serum plant sterols and lathosterol related to cholesterol absorption in coeliac disease. *Clinica Chimica Acta - International Journal of Clinical Chemistry* 1988;174(2):213-224. No monitoring measure of interest
- Wahab PJ, Meijer Jos WR, Mulder Chris JJ. Histologic follow-up of people with celiac disease on a gluten-free diet: slow and incomplete recovery. *American Journal of Clinical Pathology* 2002; 118(3):459-463. No correlations with other measures
- Walton C, Walton S. Primary biliary cirrhosis in a diabetic male with dermatitis herpetiformis. *Clin Exp Dermatol* 1987;12(1):46-47. Not relevant to adherence
- Wauters E A, Jansen J, Houwen R H et al. Serum IgG and IgA anti-gliadin antibodies as markers of mucosal damage in children with suspected celiac disease upon gluten challenge. *J Pediatr Gastroenterol Nutr* 1991;13(2):192-196. Not relevant to adherence
- Weile B. Aspects of classic symptomatic childhood coeliac disease in Denmark: Retrospectively illustrated by local, regional, and national studies. *APMIS Suppl* 2003;111(113):5-46. Not relevant to adherence
- Weir D G, Hourihane D O. Coeliac disease during the teenage period: the value of serial serum folate estimations. *Gut* 1974;15(6):450-457. Not relevant to adherence

Weizman Z, Ben Zion Y Z, Binsztok M et al. Correlation of clinical characteristics and small bowel histopathology in celiac disease. *J Pediatr Gastroenterol Nutr* 1997;24(5):555-558. Not relevant to adherence

Westman E, Ambler G R, Royle M et al. Children with coeliac disease and insulin dependent diabetes mellitus-- growth, diabetes control and dietary intake. *Journal of Pediatric Endocrinology & Metabolism - Jpem* 1999;12(3):433-442. Not relevant to adherence

Wharton B, Wharton P. Nutrition in adolescence. *Nutr Health* 1987;4(4):195-203. Not relevant to adherence

Willis J. Coeliac disease: maintaining a gluten-free diet. *Nurs Times* 1996;92(17):44, 46 Not relevant to adherence

Young W F, Pringle E M. 110 children with coeliac disease, 1950-1969. *Arch Dis Child* 1971;46(248):421-436. Not relevant to adherence

Ziegler Anette, Schmid Sandra, Huber Doris et al. Early Infant Feeding and Risk of Developing Type 1 Diabetes-Associated Autoantibodies. *JAMA* 2003;290(13):1721-1728. Not relevant to adherence

Zouganelis S, Priest M. Impact of dietary compliance on nutritional status in adult coeliac disease. *Gut* 2001; 48(Suppl 1):A42. No correlations with other measur

