AHRQ MCC research network

Multimorbidity and Screening Colonoscopy: A Framework for Patients and Policy

Principal Investigator: Cary P. Gross, MD
Institution/Partners: Yale University
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Description

Colonoscopy is generally viewed as an effective screening tool that should be widely promoted. However, the potential benefits and risks of colonoscopy can vary substantially according to a patient's age and chronic disease burden. The main objectives of this study are to increase understanding about how co-occurring chronic diseases, sex, and age affect the risks and benefits of screening colonoscopy; and to develop a framework for determining the likelihood that elderly patients with varying levels of chronic disease burden would benefit from this screening. The resulting framework can help facilitate individualized clinical decision-making, inform the revision of screening guidelines, and provide guidance for quality of care initiatives.

Specific Aims

1. Estimate the impact of screening colonoscopy on life expectancy and determine the earliest time when the incremental benefits of the procedure exceed the incremental harms (i.e., the payoff time) as a function of age, sex, and chronic disease burden.
2. Employ a modeling approach to develop simple, transportable decision rules for determining the likelihood that an individual patient will benefit from a one-time screening colonoscopy.
3. Analyze Medicare claims to determine the population-level benefit of aligning colorectal cancer screening with these decision rules.
4. Examine the effect of reallocating screening colonoscopies according to calculated decision rules on vulnerable populations, including minority race and those with lower socioeconomic status, in terms of use of screening colonoscopy and overall mortality.

Main Objective

To increase understanding of how co-occurring chronic diseases, sex, and age affect the risks and benefits of screening colonoscopy; and develop a framework for determining which elderly patients are most likely to benefit from this screening.

Chronic Conditions Considered

Focused on burden of chronic disease; chronic conditions not specified

Preventive Services Considered

Colorectal cancer screening

Study Design & Population

Analytic epidemiological study

Patients with (n=68,073) and without (n=226,868) colorectal cancer, aged 67-94 from the linked Surveillance, Epidemiology, and End Results (SEER)-Medicare database.

Strategies Addressed from the National MCC Strategic Framework

3.A. Identify best practices and tools
4.C. Increase clinical health research
4.D. Address disparities

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