

Section 5: Evidence

Attachment 4: ADHD Guidelines Review

Aspect of Care	Developer	Guideline Recommendations	Evidence Ranking/Rating*
Screening	American Academy of Child Adolescent Psychiatry	<p>Recommendation 1. Screening for Attention-Deficit/Hyperactivity Disorder (ADHD) Should Be Part of Every Patient's Mental Health Assessment.</p> <p>In any mental health assessment, the clinician should screen for ADHD by specifically asking questions regarding the major symptom domains of ADHD (inattention, impulsivity, and hyperactivity) and asking whether such symptoms cause impairment. These screening questions should be asked regardless of the nature of the chief complaint. Rating scales or specific questionnaires containing the Diagnostic and Statistical Manual (DSM) symptoms of ADHD can also be included in clinic/office registration materials to be completed by parents before visits or in the waiting room before the evaluation. If a parent reports that the patient suffers from any symptoms of ADHD that induce impairment or if the patient scores in the clinical range for ADHD symptoms on a rating scale, then a full evaluation for ADHD as set out in the next recommendation is indicated.</p>	MS
Diagnosis and Evaluation	American Academy of Pediatrics	<p>Action Statement 1: The primary care clinician should evaluate children 4 through 18 years of age for ADHD if they present with academic or behavioral problems and symptoms of inattention, hyperactivity, or impulsivity.</p>	Level B
Diagnosis and Evaluation	American Academy of Pediatrics	<p>Action Statement 2: To make a diagnosis of ADHD, the primary care clinician should determine that Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV) criteria have been met (including documentation of impairment in more than one major setting), with information obtained primarily from reports of parents or guardians, teachers, and other school and mental health clinicians involved in the child's care. The primary care clinician should also rule out any alternative cause and should include assessment for other conditions that might coexist or be comorbid with or consequent to ADHD, including emotional or behavioral (eg anxiety, mood, oppositional defiant, and conduct disorders), and physical (eg tics, sleep apnea) conditions.</p>	Level B

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Diagnosis and Evaluation	American Academy of Child Adolescent Psychiatry	<p>Recommendation 2. Evaluation of the Preschooler, Child, or Adolescent for ADHD Should Consist of Clinical Interviews with the Parent and Patient, Obtaining Information about the Patient's School or Day Care Functioning, Evaluation for Comorbid Psychiatric Disorders, and Review of the Patient's Medical, Social, and Family Histories.</p> <p>Recommendation 3. If the Patient's Medical History Is Unremarkable, Laboratory or Neurological Testing Is Not Indicated.</p> <p>Recommendation 4. Psychological and Neuropsychological Tests Are Not Mandatory for the Diagnosis for ADHD, but Should Be Performed if the Patient's History Suggests Low General Cognitive Ability or Low Achievement in Language or Mathematics Relative to the Patient's Intellectual Ability.</p> <p>Recommendation 5. The Clinician Must Evaluate the Patient with ADHD for the Presence of Comorbid Psychiatric Disorders.</p>	<p>MS</p> <p>NE</p> <p>OP</p> <p>MS</p>
Diagnosis and Evaluation	Scottish Intercollegiate Guidelines Network (SIGN)	<p>Parental report of their children's symptoms is an essential component of the diagnostic assessment.</p> <p>A history should be obtained of obstetric and perinatal complications.</p> <p>A developmental history should be obtained to show a chronological development of difficulties.</p> <p>Laboratory assessments should not be used routinely.</p> <p>An assessment of the child's presentation in their educational placement is important for confirming diagnosis and identifying educational underachievement.</p>	<p>D</p> <p>D</p> <p>C</p> <p>C</p> <p>D</p>
Diagnosis and Evaluation	American Academy of Pediatrics	<p>Action Statement 3: In the evaluation of a child for ADHD, the primary care clinician should include assessment for other conditions that might coexist with ADHD, including emotional or behavioral (eg anxiety, depressive, oppositional defiant, and conduct disorders), developmental (eg, learning and language disorders or other neurodevelopmental disorders), and physical (eg, tics, sleep apnea) conditions.</p> <p>Action Statement 4: The primary care clinician should recognize ADHD as a chronic condition and, therefore, consider children and adolescents with ADHD as children and youth with special health care needs. Management of children and youth with special health care needs should follow the principles of the chronic care model and the medical home.</p>	<p>Level B</p> <p>Level B</p>

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Treatment	American Academy of Pediatrics	<p>Action Statement 5: Recommendations for treatment of children and youth with ADHD varies depending on their age:</p> <p>5a. For <u>preschool aged children (4 through 5 years of age)</u>, the primary care clinician should prescribe evidence-based parent- and/or teacher-administered behavior therapy as the first line of treatment (Quality of Evidence: A/Strong Recommendation) and may prescribe treatment with methylphenidate if behavior interventions have not provided adequate improvement and there is moderate to severe continuing disturbance in the child's function. In areas where evidence-based behavioral treatments are not available, the clinician needs to weigh the risks of starting medication at an early age against the harm of delaying diagnosis and treatment (Quality of Evidence: B/Recommendation).</p> <p>5b. For <u>elementary school-age children (6 through 11 years of age)</u>, the primary care clinician should prescribe FDA-approved medications for ADHD (Quality of Evidence: A/Strong Recommendation) and/or evidence based parent- and/or teacher-administered behavior therapy as treatment for ADHD-preferably both (Quality of Evidence: B/Strong Recommendation). The recommendations are particularly strong for stimulant medications and sufficient but less strong for atomoxetine, extended-release guanfacine, and extended release-clonidine, in that order). The school environment, program, or placement is a part of any treatment plan.</p> <p>5c. For adolescents (12 through 18 years of age), the primary care clinician should prescribe FDA-approved medications for ADHD (Quality of Evidence: A/Strong Recommendation) and may prescribe behavior therapy as treatment for ADHD (Quality of Evidence: C/Recommendation) – preferably both.</p>	<p>A for behavior. B for methylphenidate</p> <p>A for treatment with FDA approved medications; B for behavior therapy.</p> <p>A for medications; C for behavior therapy.</p>

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Treatment	American Academy of Child Adolescent Psychiatry	<p>Recommendation 6. A Well-Thought-Out and Comprehensive Treatment Plan Should Be Developed for the Patient with ADHD</p> <p>Recommendation 7. The Initial Psychopharmacological Treatment of ADHD Should Be a Trial with an Agent Approved by the Food and Drug Administration (FDA) for the Treatment of ADHD.</p> <p>The following medications are approved by the FDA for the treatment of ADHD: dextroamphetamine (DEX), D- and D,L-methylphenidate (MPH), mixed salts amphetamine, and atomoxetine.</p> <p>Recommendation 8. If None of the Above Agents Result in Satisfactory Treatment of the Patient with ADHD, the Clinician Should Undertake a Careful Review of the Diagnosis and Then Consider Behavior Therapy and/or the Use of Medications Not Approved by the FDA for the Treatment of ADHD.</p> <p>Recommendation 9. During a Psychopharmacological Intervention for ADHD, the Patient Should Be Monitored for Treatment-Emergent Side Effects.</p> <p>Recommendation 10. If a Patient With ADHD Has a Robust Response to Psychopharmacological Treatment and Subsequently Shows Normative Functioning in Academic, Family, and Social Functioning, Then Psychopharmacological Treatment of the ADHD Alone Is Satisfactory.</p> <p>Recommendation 11. If a Patient with ADHD Has a Less Than Optimal Response to Medication, Has a Comorbid Disorder, or Experiences Stressors in Family Life, Then Psychosocial Treatment in Conjunction with Medication Treatment Is Often Beneficial.</p> <p>Recommendation 12. Patients Should Be Assessed Periodically to Determine Whether There Is Continued Need for Treatment or If Symptoms Have Remitted. Treatment of ADHD Should Continue as Long as Symptoms Remain Present and Cause Impairment.</p> <p>Recommendation 13. Patients Treated With Medication for ADHD Should Have Their Height and Weight Monitored Throughout Treatment.</p>	<p>MS</p> <p>MS</p> <p>CG</p> <p>MS</p> <p>OP</p> <p>CG</p> <p>MS</p> <p>MS</p>

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Non-pharmacological Treatment	Scottish Intercollegiate Guidelines Network (SIGN)	<p>Behavioural parent training is recommended for parents of pre-school children with symptoms of attention deficit hyperactivity disorder/hyperkinetic disorder (ADHD/HKD). This should be delivered by trained facilitators.</p> <p>In pre-adolescent children with ADHD/HKD and comorbid symptoms of oppositional defiant disorder and/or aggressive behaviour, behavioural programmes are recommended to treat the comorbid problems.</p> <p>In pre-adolescent children with ADHD/HKD and comorbid generalised anxiety, behavioural programmes are recommended to treat the comorbid problems.</p> <p>Children with ADHD/HKD require an individualised school intervention programme including behavioural and educational interventions.</p>	<p>B</p> <p>A</p> <p>B</p> <p>A</p>
Pharmacological Treatment	Scottish Intercollegiate Guidelines Network (SIGN)	<p>For school aged children and young people with hyperkinetic disorder (severe ADHD) medication is recommended.</p> <p>For school aged children and young people with ADHD/HKD and comorbid symptoms of oppositional defiant disorder and/or aggressive behaviour a combination of medication and behavioural treatments is recommended.</p> <p>For school aged children and young people with ADHD/HKD and comorbid generalised anxiety disorders, a combination of medication and behavioural treatments is recommended.</p>	<p>A</p> <p>A</p> <p>B</p>
Pharmacological Treatment	Scottish Intercollegiate Guidelines Network (SIGN)	<p>Psychostimulants are recommended as the first choice medication for the core symptoms of ADHD/HKD in children.</p> <p>Psychostimulants should not be first line medication for children with ADHD/HKD where there are known (or where there is a family history of) cardiac abnormalities.</p> <p>Atomoxetine is recommended as treatment for the core symptoms of ADHD/HKD in children where psychostimulant medication is not appropriate, not tolerated or is ineffective.</p> <p>Clonidine can be considered in children unresponsive to or unable to tolerate treatment with psychostimulants or atomoxetine. It may be used on its own or in combination with methylphenidate on an individual case basis.</p> <p>Tricyclic antidepressants should not be routinely used in treatment of ADHD/HKD in children and should only be considered where children have not responded to licensed medications.</p>	<p>A</p> <p>D</p> <p>A</p> <p>C</p> <p>B</p>

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Table: Evidence Classification/Guidelines Rating Scheme

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American Academy of Pediatrics	<p>A: Well designed RCTs or diagnostic studies on relevant population</p> <p>B: RCTs or diagnostic studies with minor limitations; overwhelmingly consistent evidence from observational studies</p> <p>C: Observational studies (case-control and cohort design)</p> <p>D: Expert opinion, case reports, reasoning from first principles</p> <p>X: Exceptional situations where validating studies cannot be performed and there is a clear preponderance of benefit or harm</p>
American Academy of Child Adolescent Psychiatry	<p>[MS] <i>Minimal standards</i> are recommendations that are based on rigorous empirical evidence (e.g., randomized, controlled trials) and/or overwhelming clinical consensus. Minimal standards are expected to apply >95% of the time (i.e., in almost all cases).</p> <p>[CG] <i>Clinical guidelines</i> are recommendations that are based on empirical evidence and/or strong clinical consensus. Clinical guidelines apply approximately 75% of the time (i.e., in most cases). These practices should almost always be considered by the clinician, but there are significant exceptions to their universal application.</p> <p>[OP] <i>Options</i> are practices that are acceptable, but not required. There may be insufficient empirical evidence and/or clinical consensus to support recommending these practices as minimal standards or clinical guidelines.</p> <p>[NE] <i>Not endorsed</i> refers to practices that are known to be ineffective or contraindicated.</p>
Scottish Intercollegiate Guidelines Network (SIGN).	<p>A: At least one meta-analysis, systematic review, or randomised controlled trial (RCT) rated as 1++ and directly applicable to the target population; or</p> <p>A body of evidence consisting principally of studies rated as 1+, directly applicable to the target population, and demonstrating overall consistency of results</p> <p>B: A body of evidence including studies rated as 2++, directly applicable to the target population, and demonstrating overall consistency of results; or</p> <p>Extrapolated evidence from studies rated as 1++ or 1+</p> <p>C: A body of evidence including studies rated as 2+, directly applicable to the target population and demonstrating overall consistency of results; or</p> <p>Extrapolated evidence from studies rated as 2++</p> <p>D: Evidence level 3 or 4; or Extrapolated evidence from studies rated as 2+</p>

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References

American Academy of Pediatrics, Subcommittee on Attention-Deficit/Hyperactivity Disorder, Steering Committee on Quality Improvement and Management. ADHD: Clinical Practice Guideline for the Diagnosis, Evaluation, and Treatment of Attention-Deficit/Hyperactivity Disorder in Children and Adolescents. *Pediatrics*. 2011;128(5):1007-1022.

Scottish Intercollegiate Guidelines Network (SIGN). Management of attention deficit and hyperkinetic disorders in children and young people. A national clinical guideline. Edinburgh (Scotland): Scottish Intercollegiate Guidelines Network (SIGN); 2009 Oct. 52 p. (SIGN publication; no. 112).

Pliszka S, AACAP Work Group on Quality Issues. Practice parameter for the assessment and treatment of children and adolescents with attention-deficit/hyperactivity disorder. *J Am Acad Child Adolesc Psychiatry* 2007 Jul;46(7):894-921.