

Diagnosis and Evaluation of the Child with Attention-Deficit/Hyperactivity Disorder Practice Guidelines

This Guideline has been adapted from the American Academy of Pediatrics Clinical Practice Guideline: Diagnosis and Evaluation of the Child with Attention-Deficit/Hyperactivity Disorder (Pediatrics Vol. 105 No. 5, May 2000) to provide treatment guidance to primary care providers in diagnosis of ADHD. This clinical practice guideline is not intended as sole source of guidance in the evaluation of children with ADHD. It is designed to assist primary care clinicians by providing a framework for diagnostic decision making. It is not intended to replace clinical judgment or to establish a protocol for all children with this condition and may not provide the only appropriate approach to this problem.

Diagnostic Measurement 1	<p>In a child 6 to 12 years old who presents with inattention, hyperactivity, impulsivity, academic underachievement, or behavior problems, primary care clinicians should initiate an evaluation for ADHD.</p> <p>The following general questions may be useful at all visits for school-aged children to heighten attention about ADHD and as an initial screening for school performance.</p> <ol style="list-style-type: none"> 1. How is your child doing in school? 2. Are there any problems with learning that you or the teacher has seen? 3. Is your child happy in school? 4. Are you concerned with any behavioral problems in school, at home, or when your child is playing with friends? 5. Is your child having problems completing classwork or homework? 	<p>Strength of Evidence: Good</p> <p>Strength of Recommendation: Strong</p>
Diagnostic Measurement 2	<p>The diagnosis of ADHD requires that a child meet DSM-IV criteria. Establishing a diagnosis of ADHD requires a strategy that minimizes over-identification and under-identification. Pediatricians and other primary care health professionals should apply DSM-IV criteria in the context of their clinical assessment of a child.</p> <p>The DSM-IV criteria define 3 subtypes of ADHD (see Table 1 for specific inattention and hyperactive-impulsive items).</p> <p>The diagnosis comes from a synthesis of information obtained from parents; school reports; mental health care professional, if they have been involved; and an interview/examination of the child.</p> <p>Current DSM-IV criteria require evidence of symptoms before 7 years of age.</p>	<p>Strength of Evidence: Good</p> <p>Strength of Recommendation: Strong</p>
Diagnostic Measurement 3	<p>The assessment of ADHD requires evidence directly obtained from parents or caregivers regarding the core symptoms of ADHD in various settings, the age of onset, duration of symptoms, and degree of functional impairment.</p> <p>Specific questionnaire and rating scales* have been developed to review and quantify the behavior characteristics of ADHD. ADHD-specific rating scales accurately distinguish between children with and without the diagnosis of ADHD. Almost all studies of these scales and checklists have taken place under ideal condition. These instruments may function less well in primary care clinician's offices. Questions on which these rating scales are based are subjective and subject to bias.</p>	<p>Strength of Evidence: Good</p> <p>Strength of Recommendation: Strong</p>
Diagnostic Measurement 3A	<p>Use of these scales is a clinical option when evaluating children for ADHD.</p> <p>Global, nonspecific questionnaires and rating scales that assess a variety of behavioral conditions, in contrast with the ADHD-specific measures, generally have an odds ratio <2.0 (equivalent to sensitivity and specificity <86%) in studies differentiating children referred to</p>	<p>Strength of Evidence: Strong</p> <p>Strength of Recommendation: Strong</p>

Diagnostic Measurement 3B	<p>psychiatric practices from children who were not referred to psychiatric practices. Thus, these broadband scales do not distinguish well between children with and without ADHD.</p> <p>Use of broadband scales is not recommended in the diagnosis of children for ADHD, although they may be useful for other purposes.</p>	Strength of Evidence: Strong Strength of Recommendation: Strong
	<p>More research is needed on the use of the ADHD specific and global rating scales in pediatric practices for the purposes of differentiating children with ADHD from other children with different behavior or school problems.</p>	
Diagnostic Measurement 4	<p>The assessment of ADHD requires evidence directly obtained from the classroom teacher (or other school professional) regarding the core symptoms of ADHD, the duration of symptoms, the degree of functional impairment, and coexisting conditions. A physician should review any reports from a school-based multidisciplinary evaluation where they exist, which will include assessments from the teacher or other school-based professional.</p>	Strength of Evidence: Good Strength of Recommendation: Strong
Diagnostic Measurement 4A	<p>Behavior symptoms may be obtained using 1 or more methods such as verbal narratives, written narratives, questionnaires, or rating scales.</p> <p>Use of these scales is a clinical option when diagnosing children for ADHD.</p>	Strength of Evidence: Strong Strength of Recommendation: Strong
Diagnostic Measurement 4B	<p>Teacher global questionnaires and rating scales that assess a variety of behavioral conditions, in contrast with the ADHD-specific measure, generally have an odds ratio <2.0 (equivalent to sensitivity and specificity <86%) in studies differentiating children referred to psychiatric practices from children who were not referred to psychiatric practices.</p> <p>Use of teacher global questionnaire and rating scales is not recommended in the diagnosing of children for ADHD, although they may be useful for other purposes.</p>	Strength of Evidence: Strong Strength of Recommendation: Strong
Diagnostic Measurement 5	<p>Evaluation of the child with ADHD should include assessment for coexisting conditions.</p>	Strength of Evidence: Strong Strength of Recommendation: Strong
Diagnostic Measurement 6	<p>A variety of other psychological and developmental disorders frequently coexist in children who are being evaluated for ADHD. As many as one third of children with ADHD have 1 or more coexisting conditions.</p> <p>Other diagnostic tests are not routinely indicated to establish the diagnosis of ADHD.</p>	Strength of Evidence: Strong Strength of Recommendation: Strong
	<p>A few older studies have indicated associations between blood lead levels and child behavior symptoms, although most studies have not.</p>	
	<p>Brain imaging studies and electroencephalography do not show reliable differences between children with ADHD and controls.</p>	

*The Conner Childhood Behavior Checklist is the most commonly used rating scale. Information on it can be found at <http://www.help4adhd.org/en/treatment/scales>

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TABLE 1. Diagnostic Criteria for ADHD

A. Either 1 or 2

1) Six (or more) of the following symptoms of **inattention** have persisted for at least 6 months to a degree that is maladaptive and inconsistent with developmental level:

Inattention

- a) Often fails to give close attention to details or makes careless mistakes in schoolwork, work, or other activities
- b) Often has difficulty sustaining attention in tasks or play activities
- c) Often does not seem to listen when spoken to directly
- d) Often does not follow through on instructions and fails to finish schoolwork, chores, or duties in the workplace (not due to oppositional behavior or failure to understand instructions)
- e) Often has difficulty organizing tasks and activities
- f) Often avoids, dislikes, or is reluctant to engage in tasks that require sustained mental effort (such as schoolwork or homework)
- g) Often loses things necessary for tasks or activities (e.g., toys, school assignments, pencils, books, or tools)
- h) Is often easily distracted by extraneous stimuli
- i) Is often forgetful in daily activities

2) Six (or more) of the following symptoms of **hyperactivity-impulsivity** have persisted for at least 6 months to a degree that is maladaptive and inconsistent with developmental level:

Hyperactivity

- a) Often fidgets with hands or feet or squirms in seat
- b) Often leaves seat in classroom or in other situations in which remaining seated is expected
- c) Often runs about or climbs excessively in situations in which it is inappropriate (in adolescents or adults, may be limited to subjective feelings of restlessness)
- d) Often has difficulty playing or engaging in leisure activities quietly
- e) Is often "on the go" or often acts as if "driven by a motor"
- f) Often talks excessively

Impulsivity

- g) Often blurts out answers before questions have been completed
- h) Often has difficulty awaiting turn
- i) Often interrupts or intrudes on others (eg, butts into conversations or games)

B. Some hyperactive-impulsive or inattentive symptoms that caused impairment were present before 7 years of age.

C. Some impairment from the symptoms is present in 2 or more settings (eg, at school [or work] or at home).

D. There must be clear evidence of clinically significant impairment in social, academic, or occupational functioning.

E. The symptoms do not occur exclusively during the course of a pervasive developmental disorder, schizophrenia, or other psychotic disorder and are not better accounted for by another mental disorder (eg, mood disorder, anxiety disorder, dissociative disorder, or personality disorder).

Code based on type:

314.01 Attention-Deficit/Hyperactivity Disorder, Combined Type: if both criteria A1 and A2 are met for the past 6 months

314.00 Attention-Deficit/Hyperactivity Disorder, Predominantly Inattentive Type: if criterion A1 is met but criterion A2 is not met for the past 6 months

314.01 Attention-Deficit/Hyperactivity Disorder, Predominantly Hyperactive, Impulsive Type: if criterion A2 is met but criterion

A1 is not met for the past 6 months

314.9 Attention-Deficit/Hyperactivity Disorder Not Otherwise Specified

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