



Clinical Practice Guidelines
Attention Deficit Hyperactivity Disorder

INTRODUCTION
Attention Deficit Hyperactivity Disorder (ADHD) is a psychiatric disorder of children, adolescents and adults manifested by a persistent pattern of inattention and/or hyperactivity in excess of that displayed in individuals of comparable levels of development. Symptoms producing impairment must have been present before age seven years, although many cases have delayed diagnosis.
SYMPTOM CLUSTERS
<ul style="list-style-type: none">• Inattention• Hyperactivity• Impulsivity
SUBTYPES OF ADHD
<ul style="list-style-type: none">• Attention-Deficit /Hyperactivity Disorder, Combined Type• Attention-Deficit/Hyperactivity Disorder, Predominantly Inattentive Type• Attention-Deficit/Hyperactivity Disorder, Predominantly Hyperactive-Impulsive Type• Attention-Deficit/Hyperactivity Disorder Not Otherwise Specified
COMORBIDITIES OF ADHD
ADHD comorbidities include learning disabilities, speech and language disorders, depression, bipolar affective disorder, tic disorder, obsessive-compulsive disorder and other anxiety disorders, and disruptive behavior disorders. There is a higher incidence of substance abuse in adolescents and adults with ADHD.



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EVALUATION OF ADHD

Initial history should include birth history, developmental history, family history and behavioral assessment in all settings, as well as history of the present illness. Regular vital signs with height and weight are indicated at first visit and regularly at follow-up. A current/recent physical exam with screening neurological exam is appropriate. Ensure that vision and hearing are normal. Obtain general laboratory studies and/or urine drug screen as indicated. Electrocardiogram and cardiology consults are recommended if cardiac history is known or suspected, including family history of early sudden death of cardiac etiology or family history of cardiac conduction abnormality; routine EKG is not recommended by AACAP.

ADHD rating scales are appropriate at diagnosis and for follow-up to track treatment response. These include the Conners Parent and Teacher Rating Scales or the equivalent and may also include the Continuous Performance Test.



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TREATMENT OF ADHD

For preschool children, the initial treatment for ADHD is an evidence-based parent- or teacher-administered behavior therapy. If the behavior interventions do not provide significant improvement and there is moderate to severe continuing disturbance in the child's function, then a medication trial is appropriate for consideration. In geographic 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. The behavioral intervention should be continued with the medication management.

For school-aged children, stimulants and other medications are first-line treatments. Many children with more complex presentations require some additional behavioral/psychotherapy intervention involving the family. The exact interventions are often strongly influenced by the comorbidities present. The evidence is 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 is part of any treatment plan for ADHD treatment of children.

For adolescents and adults, stimulant medications are first-line treatments. For adolescents (12–18 years of age), medications for ADHD are utilized with the consent of the adolescent, as well as consent of the parent.

Other medications besides stimulants have a less secure evidence base but may be useful in specific patients. Psychosocial interventions may be added, again selected by comorbidity and by presentation. The educational setting and plan remain important considerations in the treatment of ADHD in adolescents. Treatment of psychiatric comorbidities and intervention with family or spouse, educational, and career problems, along with specific medication treatment, can produce significant improvement in functioning.



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SPECIFIC PHARMACOTHERAPY INTERVENTIONS

If a stimulant is indicated (unless allergic, pregnant-lactating or has specific contraindication), select from the short-acting, intermediate or long-acting formulary based on the client's history, response to previous pharmacotherapy and side effects profile for both patient and medication.

Newer options for stimulant treatment include a patch (Daytrana) and a prodrug (Vyvanse). Concerta and Vyvanse are commonly used and often well-tolerated long-acting stimulants. One may also consider Tenex (guanfacine) or Catapres (clonidine (or the newer long-acting products Intuniv or Kapvay)) for augmentation; Intuniv is approved for monotherapy. Other options include Strattera (atomoxetine), Wellbutrin (bupropion) for those over age 8 years and Tofranil (imipramine) as current second-line pharmacotherapy. Selective use of these additional medications may be useful in patients with tics, substance abuse, severe anxiety, persistent hyperactivity, mild aggression or insomnia.

If treating with a long-acting stimulant, it may be appropriate to use a short-acting preparation of the same stimulant in the late afternoon. College students and adults with unusual work hours require careful balancing of dosing duration and sleep schedules.

When using tricyclic antidepressants (eg imipramine), obtain a baseline EKG and an EKG after each dosage increase. A blood level should be obtained at all but the lowest doses.

Information about FDA approval of medications for different age groups with ADHD is available; there is often, additionally, significant clinical data to support off-label use with respect to age. Clinical judgment considering all these factors and the response to treatment, along with side-effect burden, creates a specific treatment plan for the individual patient with ADHD. If none of the FDA-approved agents result in an adequate response, consider using a non-FDA-approved medication for the treatment of ADHD.



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PSYCHOSOCIAL INTERVENTIONS FOR ADHD

Psychoeducation is indicated for all patients/families. Social skills training and parenting training may be utilized as indicated. Coaching by a specific ADHD coach can be very useful for college students and adults. Other co-morbidities may be treated with psychotherapy as indicated.

Academic performance should be accessed at each visit for all students. It is appropriate to encourage an Individualized Educational Plan or to support informal school modifications. Appropriate documentation is required from the health care provider to the school system. Document crucial details.

2012 HEDIS MEASURES FOR ADHD

For children ages 6 to 12 years who received an initial prescription for ADHD medication and:

1. Received at least one follow-up visit with a prescriber within 30 days of initiation of medication treatment
2. Remained on medication for at least 210 days and who, in addition to the visit in the initiation phase, had at least two more follow-up visits between four weeks and nine months.

SUGGESTED REFERRAL TO BEHAVIORAL HEALTH

- Preschool children
- Patient for whom the diagnosis is uncertain (e.g., psychiatric disorder, parent-and-child-interaction problem)
- Patient not responding to treatment or intolerant because of medication side effects
- Patient with psychiatric comorbidities requiring specialized treatment



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PSYCHO-EDUCATION REFERENCES

Identifying and Treating Attention Deficit Hyperactivity Disorder

<http://www2.ed.gov/teachers/needs/speced/adhd/adhd-resource-pt1.pdf>

CHADD P2P Program

<http://www.chadd.org/Content/CHADD/ConferencesTraining/ParenttoParentProgram/P2PResources/default.htm>

Section 504 Plan

<http://www.help4adhd.org/en/education/rights/504>

REFERENCES FOR HEALTH CARE PROVIDERS

American Academy of Pediatrics. (2011). Clinical Guideline for the Diagnosis, Evaluation and Treatment of ADHD in Children and Adolescents. Retrieved from

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All member care and related decisions are the sole responsibility of the provider. This information does not dictate nor control your clinical decisions regarding the appropriate care of members. Guidelines are subject to state regulations, benefits and formularies.