

Diagnosis and Treatment of ADHD in Children and Adolescents

Clinician Guide

March 2018

Introduction

This Clinician Guide is based on the 2018 National ADHD guideline and was developed to assist primary care physicians, pediatricians, and other clinicians in the diagnosis and treatment of ADHD in children and adolescents. For the 2018 update, a recommendation on exercise was added to the guideline based on an evidence review of non-pharmacological interventions for ADHD. In addition, the strength of recommendation that suggests cardiac evaluation prior to medication initiation in members with known cardiac abnormalities was increased from conditional to strong. The remainder of the KP National ADHD Guideline primarily adapted the 2011 recommendations developed by the National Institute for Health and Care Excellence (Attention Deficit Hyperactivity Disorder: The NICE Guideline on Diagnosis and Management of ADHD in Children, Young People and Adults) and Scottish Intercollegiate Guidelines Network (Management of Attention Deficit and Hyperkinetic Disorders in Children and Young People) with modifications. The guideline is not intended or designed as a substitute for the reasonable exercise of independent clinical judgment by practitioners.

Clinical Considerations

- ▶ All children and adolescents should receive sufficient exercise (at least 1 hour daily), a balanced and healthy diet, and limited electronic and television time each day.

Key Points

- ▶ In children and adolescents diagnosed with ADHD, promote physical activity as an adjunct to medication unless contraindicated.
- ▶ Evaluate children and adolescents for ADHD when they have signs, symptoms, or impairment suggestive of ADHD.
- ▶ As part of the evaluation and diagnosis of ADHD in children and adolescents, use structured and validated rating scales¹ and refer to and follow the DSM-5 diagnostic criteria.
- ▶ Before initiating pharmacological therapy in children and adolescents with ADHD, conduct a baseline physical assessment, including measurement of pulse, blood pressure, weight and height with the appropriate use of percentile charts.
- ▶ Do not perform psychodiagnostic tests as part of ADHD evaluation in the absence of other indications.
- ▶ In children and adolescents with ADHD with known cardiac abnormalities, conduct or refer for cardiac risk evaluation or consultation before prescribing psychostimulants.
- ▶ For children and adolescents diagnosed with ADHD (with or without comorbid conditions), recommend stimulant medications methylphenidate, amphetamine mixed salts, or dextroamphetamine as first-line pharmacological treatment.

¹ The publicly available Vanderbilt ADHD Rating Scales are recommended as part of the evaluation and diagnosis of ADHD in children and adolescents. The following behavioral rating scales can be used in addition to the initial evaluation: Conners' Rating Scales (revised Conners' Parent Rating Scale [CPRS-R], revised Conners' Teacher Rating Scale [CTRS-R], and Conners'-Wells' Adolescent Self-Report of Symptoms scale [CASS]); Achenbach Scales (CBCL, TRF, YSR); ADHD Rating Scale – IV (ADHD RS-IV, DSM-5 based); and Swan, Nolan, and Pelham Questionnaire (SNAP, DSM-5 based). Achenbach and Vanderbilt behavioral rating scales can be used to assess some comorbid disorders.

- ▶ Collaborate with patients, parents and/or caregivers to select first-line pharmacological treatment based on preferences, side effects and potential harms, pharmacokinetics (rapidity of onset, duration of action), cost, and formulary availability.
- ▶ Provide instructions to patients, parents and/or other caregivers about cardiovascular signs and symptoms² (for any stimulant), or liver dysfunction, and suicidality (for atomoxetine). Patients, parents or caregivers should seek medical attention should any of these signs and symptoms occur.

Recommendations

Screening and Evaluation

- ▶ Do not offer universal ADHD screening to children and adolescents.
- ▶ Evaluate children and adolescents for ADHD when they have signs, symptoms, or impairment suggestive of ADHD.

Diagnosis and Classification

- ▶ As part of the evaluation and diagnosis of ADHD in children and adolescents, use structured, validated rating scales¹ and refer to and follow the DSM-5 diagnostic criteria.
- ▶ Before initiating pharmacological therapy in children and adolescents with ADHD, conduct a baseline physical assessment (including measurement of pulse, blood pressure, weight and height with the appropriate use of percentile charts).
- ▶ For children and adolescents with ADHD with known cardiac abnormalities, conduct or refer for cardiac risk evaluation or consultation prior to prescribing psychostimulants.
- ▶ Do not perform psychodiagnostic tests as part of ADHD evaluation in the absence of other indications.
- ▶ In the absence of signs or symptoms of atopy, consider not referring children and adolescents with ADHD for allergy evaluation, as it is unlikely to change the diagnosis or treatment plan.

First-line Pharmacological Treatment

- ▶ For children and adolescents diagnosed with ADHD with or without comorbid conditions), recommend stimulant medications methylphenidate, amphetamine mixed salts, or dextroamphetamine as first-line pharmacological treatment.
- ▶ Collaborate with patients, parents, and/or caregivers to select first-line pharmacological treatment based on preferences, side effects and potential harms, pharmacokinetics (rapidity of onset, duration of action), cost, and formulary availability.

² Chest pain, fainting, accelerated heart rate, sweating, shortness of breath and dizziness.

Exercise, Educational Services, Therapy, and Diet

- ▶ In children and adolescents diagnosed with ADHD, promote physical activity as an adjunct to medication unless contraindicated.
- ▶ For children and adolescents diagnosed with ADHD, consider offering additional educational services outside of KP, such as through school systems.
- ▶ Consider providing cognitive behavioral therapy (CBT), family therapy, parent training, and social skills training to children or adolescents diagnosed with ADHD, with or without comorbidities, for whom pharmacological treatment is contraindicated, not tolerated, or a decision has been made not to initiate pharmacological therapy.
- ▶ In children and adolescents who are responding adequately to medication management, consider not routinely adding a clinic-based, non-pharmacological intervention³ for treating ADHD.
- ▶ Consider not offering dietary modifications and/or elimination diets⁴ for the treatment of ADHD.

Second-line Pharmacological Treatment Options

- ▶ After assessing for and addressing medication adherence and other conditions that might interfere with response, if not otherwise contraindicated, consider prescribing a different stimulant medication (in the same or different class) for patients who fail to adequately respond to or are intolerant of the initial stimulant.
- ▶ If two or more first-line stimulant formulations are contraindicated, not tolerated, or ineffective, consider offering the following treatment options:
 1. Referral or consultation with a specialist, including child psychiatry behavioral health, a behavioral pediatrician, or ADHD champion
 2. Stimulant treatment augmented with guanfacine or clonidine
 3. Guanfacine or clonidine monotherapy.
 4. Atomoxetine (KP non-formulary medication)

Clinical follow-up for children and adolescents with ADHD who start pharmacologic treatment

- ▶ Consider providing one in-person office visit with a practitioner with prescriptive authority for children and adolescents during the 30-day initiation phase of pharmacological treatment for ADHD.
- ▶ Consider offering a minimum of 2 follow-up visits within 9 months after the 30-day initiation phase visit for children and adolescents continuing pharmacological treatment for ADHD. One of the visits may be a telephone visit with a practitioner. More frequent follow-up visits may be considered on a case-by-case basis.
- ▶ At all follow-up visits, consider assessing patients for adverse effects, adherence to treatment, and response to treatment. Consider monitoring for changes in core symptoms of ADHD (hyperactivity, impulsivity, and inattention), educational function, psychosocial function, and potential side effects, such as headaches, abdominal pain,

³ Examples of clinic-based non-pharmacological interventions are CBT, family therapy, and parent and social skills training.

⁴ Elimination diets were introduced with the 'Feingold theory' and implicated artificial colorings, preservatives, and cross-reacting natural salicylates in a variety of illnesses, including ADHD (BF Feingold, Why Your Child is Hyperactive, 1974).

This clinician guide expires within 2 months of the posted date.

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and changes in height, weight, blood pressure, pulse, or eating and sleeping patterns.

Monitoring for Adverse Events

- ▶ Provide instructions to patients, parents, and/or other caregivers about cardiovascular signs and symptoms (for any stimulant), or liver dysfunction, and suicidality (for atomoxetine). Patients, parents, or caregivers should seek medical attention should any of these signs and symptoms occur.
- ▶ Consider ordering liver function tests for patients prescribed atomoxetine.
- ▶ Consider assessing the continuing benefit and potential risk of pharmacological treatment at least every six months.
- ▶ If the benefits continue to outweigh the risks, consider prescribing pharmacological treatment for ADHD for as long as it remains clinically effective.
- ▶ Consider referring children and adolescents with ADHD and common comorbid conditions (eg, oppositional defiant, conduct, anxiety, and tic disorders) for consultation with a specialist (eg, a child psychiatrist, behavioral health specialist, behavioral pediatrician, or ADHD champion).

Medication Holidays

- ▶ For children and adolescents with ADHD, consider not routinely recommending drug holidays. However, evaluate the viewpoints of patients, parents, and/or other caregivers to identify the best pattern of use, which may include periods without drug treatment.

TERMINOLOGY		
Recommendation Language	Strength*	Action
Start, initiate, prescribe, treat, etc.	Strong affirmative	Provide the intervention. Most individuals should receive the intervention; only a small proportion will not want the intervention.
Consider starting, etc.	Conditional affirmative	Assist each patient in making a management decision consistent with personal values and preferences. The majority of individuals in this situation will want the intervention, but many will not. Different choices will be appropriate for different patients.
Consider stopping, etc.	Conditional negative	Assist each patient in making a management decision consistent with personal values and preferences. The majority of individuals in this situation will not want the intervention, but many will. Different choices will be appropriate for different patients.
Stop, do not start, etc.	Strong negative	Do not provide the intervention. Most individuals should not receive the intervention; only a small proportion will want the intervention.
*Refers to the extent to which one can be confident that the desirable effects of an intervention outweigh its undesirable effects.		

DISCLAIMER

This guideline is informational only. It is not intended or designed as a substitute for the reasonable exercise of independent clinical judgment by practitioners, considering each patient's needs on an individual basis. Guideline recommendations apply to populations of patients. Clinical judgment is necessary to design treatment plans for individual patients.