

Client	HEALTH BENCHMARKS, INC. STANDARD ALGORITHM <i>Implemented for Blue Cross Blue Shield of Illinois</i>		
Measure Title	FOLLOW-UP CARE FOR CHILDREN PRESCRIBED ADHD MEDICATION THERAPY: INITIATION PHASE		
Disease State	Attention Deficit Hyperactivity Disorder	Indicator Classification¹	Disease Management
Strength of Recommendation²	C		
Clinical Intent	To ensure that members who are initiated on medication for ADHD receive monitoring at a clinically appropriate frequency.		
Physician Specialties	Family Practice, General Practice, Mixed Specialty, Pediatrics		
Clinical Rationale	<p>Disease Burden</p> <ul style="list-style-type: none"> ADHD is one of the most common disorders of childhood with an estimated prevalence of 8 to 10 percent in school aged children.[1, 2] According to data from the National Survey of Children's Health, the prevalence of ADHD increases with increasing age (4.1 percent versus 9.7 percent among those < 9 years and 9 years, respectively). Among those with reported ADHD, 56 percent were being treated with medication at the time of the survey.[3] <p>Reason for Indicated Intervention or Treatment</p> <ul style="list-style-type: none"> Regular monitoring of children who are receiving pharmacological treatment for ADHD is necessary to review progress, adjust the dose if necessary, monitor adverse effects of therapy and review the child's understanding of the medication as he or she develops.[4-7] <p>Evidence supporting Intervention or Treatment</p> <ul style="list-style-type: none"> Some side affects of stimulant medication include appetite disturbances, sleep disturbances, weight loss, increased heart rate and blood pressure, headache, social withdrawal, nervousness, and irritability.[8-14] Other more serious side effects may include liver toxicity and sudden unexpected death.[15, 16] <p>Clinical Recommendations</p> <ul style="list-style-type: none"> The American Academy of Pediatrics strongly recommends periodically providing systematic follow-up with the child with ADHD.[4] The American Society of Child and Adolescent Psychiatry recommends having weekly contact with the patient during initial titration and during later drug dose adjustments. During the maintenance phase, they recommend following patients monthly until the patient's symptoms have stabilized.[17] 		
Source	Adapted from Health Plan Employer Data and Information Set (HEDIS®) 2007 Technical Specification		

Denominator	Continuously enrolled members aged 6-12 who were prescribed ADHD medication during the one year period starting one month prior to the measurement year.
Denominator Exclusion	Members who were prescribed ADHD medication in the 1-120 days prior to the index date (exclusive of the index date), members who had an acute mental health or substance abuse inpatient stay in the 0-30 days after the index date (inclusive of the index date), or members diagnosed with narcolepsy.
Numerator	Members with at least one follow up visit during the 1-30 days following the index date (exclusive of the index date).
Interpretation of Score	High score implies better performance
Physician Attribution	Score all physicians (in the selected specialties) who saw the member during the 0-30 days after the index date (inclusive of the index date).
References	<ol style="list-style-type: none"> 1. <i>Clinical practice guideline: diagnosis and evaluation of the child with attention-deficit/hyperactivity disorder. American Academy of Pediatrics. Pediatrics, 2000. 105(5): p. 1158-70.</i> 2. Green, M., et al., <i>Diagnosis of Attention Deficit/Hyperactivity Disorder: Technical Review 3.</i> . 1999, US Department of Health and Human Services, Agency for Health Care Policy and Research: Rockville, MD. 3. <i>Mental health in the United States. Prevalence of diagnosis and medication treatment for attention-deficit/hyperactivity disorder--United States, 2003.</i> MMWR Morb Mortal Wkly Rep, 2005. 54(34): p. 842-7. 4. <i>Clinical practice guideline: treatment of the school-aged child with attention-deficit/hyperactivity disorder.</i> Pediatrics, 2001. 108(4): p. 1033-44. 5. Hill, P. and E. Taylor, <i>An auditable protocol for treating attention deficit/hyperactivity disorder.</i> Arch Dis Child, 2001. 84(5): p. 404-9. 6. Goldman, L.S., et al., <i>Diagnosis and treatment of attention-deficit/hyperactivity disorder in children and adolescents. Council on Scientific Affairs, American Medical Association.</i> Jama, 1998. 279(14): p. 1100-7. 7. Dulcan, M., <i>Practice parameters for the assessment and treatment of children, adolescents, and adults with attention-deficit/hyperactivity disorder. American Academy of Child and Adolescent Psychiatry.</i> J Am Acad Child Adolesc Psychiatry, 1997. 36(10 Suppl): p. 85S-121S. 8. Elia, J., P.J. Ambrosini, and J.L. Rapoport, <i>Treatment of attention-deficit-hyperactivity disorder.</i> N Engl J Med, 1999. 340(10): p. 780-8. 9. Ahmann, P.A., et al., <i>Placebo-controlled evaluation of Ritalin side effects.</i> Pediatrics, 1993. 91(6): p. 1101-6. 10. Efron, D., F. Jarman, and M. Barker, <i>Side effects of methylphenidate and dexamphetamine in children with attention deficit hyperactivity disorder: a</i>

- double-blind, crossover trial*. Pediatrics, 1997. **100**(4): p. 662-6.
11. Levy, F., *Side effects of stimulant use*. J Paediatr Child Health, 1993. **29**(4): p. 250-4.
 12. Barkley, R.A., et al., *Side effects of methylphenidate in children with attention deficit hyperactivity disorder: a systemic, placebo-controlled evaluation*. Pediatrics, 1990. **86**(2): p. 184-92.
 13. Wilens, T.E., J. Biederman, and M. Lerner, *Effects of once-daily osmotic-release methylphenidate on blood pressure and heart rate in children with attention-deficit/hyperactivity disorder: results from a one-year follow-up study*. J Clin Psychopharmacol, 2004. **24**(1): p. 36-41.
 14. Stowe, C.D., et al., *24-hour ambulatory blood pressure monitoring in male children receiving stimulant therapy*. Ann Pharmacother, 2002. **36**(7-8): p. 1142-9.
 15. Safer, D.J., J.M. Zito, and J.E. Gardner, *Pemoline hepatotoxicity and postmarketing surveillance*. J Am Acad Child Adolesc Psychiatry, 2001. **40**(6): p. 622-9.
 16. *Adderall and Adderall XR (amphetamines) information. FDA Alert*. [cited 2005 March 7]; Available from: www.fda.gov/cder/drug/infopage/adderall/default.htm.
 17. Greenhill, L.L., et al., *Practice parameter for the use of stimulant medications in the treatment of children, adolescents, and adults*. J Am Acad Child Adolesc Psychiatry, 2002. **41**(2 Suppl): p. 26S-49S.

¹ **Indicator Classification** (Adapted from Health Plan Employer Data Information Set (HEDIS®) technical specifications)

Diagnosis	Measures applicable to patients receiving diagnostic workups for a symptom or condition that delineate appropriate laboratory or radiological testing to be performed (e.g. evaluation of thyroid nodule; pregnancy test in patients with vaginal bleeding or abdominal pain)
Effectiveness of Care	
Prevention	Measures applicable to asymptomatic individuals that are designed to prevent the onset of the targeted condition (e.g. immunizations).
Screening	Measures applicable to asymptomatic patients who have risk factors or pre-clinical disease, but in whom the condition has not become clinically apparent (e.g. pap smears; screening for elevated blood pressure).
Disease Management	Measures applicable to individuals diagnosed with a condition that are part of the treatment or management of the condition (e.g. cholesterol reduction in patients with diabetes; radiation therapy following breast conserving surgery; appropriate follow-up after acute event).
Medication Monitoring	Measures applicable to patients taking medications with narrow therapeutic windows and / or potential preventable significant side effects or adverse reactions (e.g. thyroid stimulating hormone (TSH) testing after levothyroxine dose change; hepatic enzyme monitoring for patients using antimycotic pharmacotherapy)
Medication Adherence	Measures applicable to patients taking medications for chronic conditions that are designed to assess patient adherence to medication (e.g. adherence to lipid lowering medication).
Utilization	Measures applicable to patients receiving treatment for a symptom or condition that advocate appropriate utilization of laboratory and pharmaceutical resources (e.g. conservative use of imaging for low back pain; inappropriate use of antibiotics for viral upper respiratory infection).

² Strength of Recommendation

Strength of Recommendation Based on a Body of Evidence

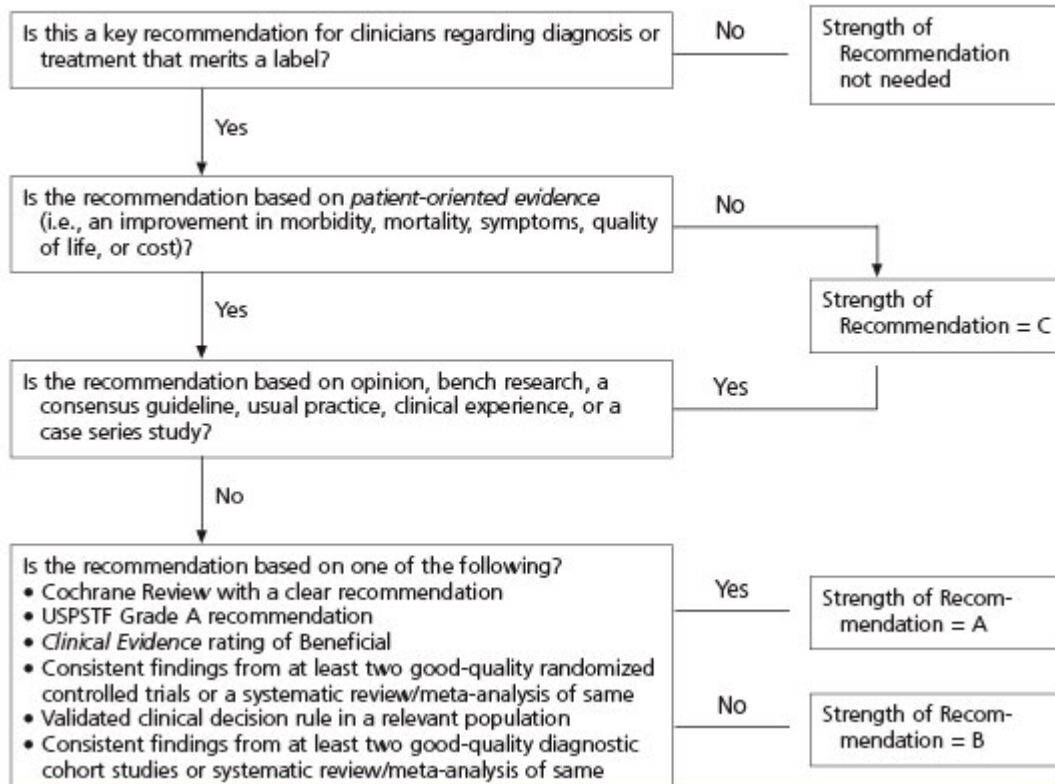


FIGURE 2. Algorithm for determining the strength of a recommendation based on a body of evidence (applies to clinical recommendations regarding diagnosis, treatment, prevention, or screening). While this algorithm provides a general guideline, authors and editors may adjust the strength of recommendation based on the benefits, harms, and costs of the intervention being recommended. (USPSTF = U.S. Preventive Services Task Force)