Title: ADHD: Symptom Reduction in Follow up Period

CMS ID: PP3

NQF #: N/A

Source(s)

Office of the National Coordinator for Health Information Technology/Centers for Medicare & Medicaid Services

Measure Domain

Effective Clinical Care: Outcome

Brief Abstract

Description

Percentage of children aged 4 through 18 years, with a diagnosis of Attention Deficit Hyperactivity Disorder (ADHD), who demonstrated a 25% reduction in symptoms 6-12 months from baseline as measured using the Vanderbilt ADHD Diagnostic Rating Scale, regardless of treatment prescribed.

Rationale

- Attention-deficit/hyperactivity disorder (ADHD) is the most common behavioral disorder in childhood. The prevalence increased by an estimated 3% annually between 1997 and 2006 (1) Recent national data show that up to 11% of four- to 17-year-olds have had an ADHD diagnosis (1,2) 8.8% currently have the diagnosis, and 6.1% are receiving a medication for ADHD (2).
- Adolescents with ADHD have higher rates of motor vehicle crashes, substance abuse, and school dropout.3 Medication is effective for treating ADHD symptoms, and studies suggest that earlier identification and treatment may improve longer-term educational, work, and social outcomes (4-7).
- The diagnosis of ADHD should be considered in patients four years or older with poor attention, distractibility, hyperactivity, impulsiveness, poor academic performance, or behavioral problems at home or at school (8–10). More boys have ADHD overall; however, the inattentive subtype is more common in girls (8-10). Although no evidence supports universal screening for ADHD at well visits, physicians should be attentive to patients' and guardians' concerns about academic performance and behavioral problems (8).
- The goal of ADHD treatment is to improve symptoms, optimize functional performance, and remove behavioral obstacles.
- Physician follow-up is recommended one month after initiating treatment. Height, weight, heart rate, blood pressure, symptoms, mood, and treatment adherence should be monitored at follow-up visits. Monthly visits may be required until medication dosing and timing are optimized. When an acceptable regimen is determined, follow-up is recommended at least

every three months during the first year, and two or three times per year thereafter to assess control of symptoms, treatment adherence, and the presence of comorbid conditions (8,9).

Evidence for Rationale

1. Perou R, Bitsko RH, Blumber SJ, et al.; Centers for Disease Control and Prevention. Mental health surveillance among children—United States, 2005–2011. MMWR Surveill Summ. 2013;62(suppl 2):1035.
2. Visser SN, Danielson ML, Bitsko RH, et al. Trends in the parent-report of health care provider-diagnosed and medicated attention-deficit/hyperactivity disorder: United States, 2003–2011. J Am Acad Child Adolesc Psychiatry. 2014;53(1):34–46.
3. Wolraich ML, Wibbelsman CJ, Brown TE, et al. Attention-deficit/hyperactivity disorder among adolescents: a review of the diagnosis, treatment, and clinical implications. Pediatrics. 2005;115(6):1734–1746.
4. A 14-month randomized clinical trial of treatment strategies for attention-deficit/hyperactivity disorder. The MTA Cooperative Group. Multimodal Treatment Study of Children with ADHD. Arch Gen Psychiatry. 1999;56(12):1073–1086.
5. Katusic SK, Barbaresi WJ, Colligan RC, Weaver AL, Leibson CL, Jacobsen SJ. Psychostimulant treatment and risk for substance abuse among young adults with a history of attention-deficit/hyperactivity disorder: a population-based, birth cohort study. J Child Adolesc Psychopharmacol. 2005;15(5):764–776.
6. Barbaresi WJ, Katusic SK, Colligan RC, Weaver AL, Jacobsen SJ. Modifiers of long-term school outcomes for children with attention-deficit/hyperactivity disorder: does treatment with stimulant medication make a difference? Results from a population-based study. J Dev Behav Pediatr. 2007;28(4):274–287.
7. Biederman J, Monuteaux MC, Spencer T, Wilens TE, Macpherson HA, Faraone SV. Stimulant therapy and risk for subsequent substance use disorders in male adults with ADHD: a naturalistic controlled 10-year follow-up study. Am J Psychiatry. 2008;165(5):597–603.
8. Christner J, O'Brien JM, Felt BT, Harrison RV, Kochhar PK, Bierman B. Attention-deficit hyperactivity disorder. Ann Arbor, Mich.: University of Michigan Health System; 2013. http://www.guideline.gov/content.aspx?id=46415&search=adhd. January 3, 2014.
9. Wolraich M, Brown L, Brown RT, et al.; 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.
10. Floet AM, Scheiner C, Grossman L. Attention-deficit/hyperactivity disorder. Pediatr Rev. 2010;31(2):56–69.

Primary Health Components

ADHD; Children and adolescents;

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Denominator Description

Children aged 4 through 18 years, with a visit during the measurement period, and with an active diagnosis of ADHD, and who meet the diagnostic threshold of the Vanderbilt ADHD Diagnostic Rating Scale at the time of baseline assessment, and with baseline mean responses documented for the ADHD symptom screen subsegments for the Vanderbilt ADHD Diagnostic Rating Scale during the 6 months prior to the measurement period.

See the related "Denominator Inclusions/Exclusions" field.

Numerator Description

Children who demonstrated a 25% reduction in the mean response for either or both ADHD symptom screen subsegments 6 to 12 months from baseline assessment as measured using the Vanderbilt ADHD Diagnostic Rating Scale.

See the related "Numerator Inclusions/Exclusions" field.

Evidence Supporting the Measure

Type of Evidence Supporting the Criterion of Quality for the Measure

- A clinical practice guideline or other peer-reviewed synthesis of the clinical research evidence

Extent of Measure Testing

- Not available

Refer to the references listed below for further information.

Evidence for Extent of Measure Testing

Not available

Data Collection for the Measure

Case Finding Period

The measurement year

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Denominator Sampling Frame

Patients associated with provider

Denominator (Index) Event or Characteristic

Clinical Condition

Diagnostic Evaluation

Encounter

Patient/Individual (Consumer) Characteristic

Denominator Inclusions/Exclusions/Exceptions

Inclusions

Children aged 4 through 18 years with an active diagnosis of ADHD;

Documentation of an active diagnosis of ADHD to include one of the following:

- ICD-10 CM codes documented in body of chart, such as a pre-printed form completed by a clinician and/or codes documented in chart notes/forms:
    - F90.0 Attention-deficit hyperactivity disorder, predominantly inattentive type
    - F90.1 Attention-deficit hyperactivity disorder, predominantly hyperactive type
    - F90.2 Attention-deficit hyperactivity disorder, combined type
    - F90.8 Attention-deficit hyperactivity disorder, other type
    - F90.9 Attention-deficit hyperactivity disorder, unspecified type

AND

Child must meet the diagnostic threshold of the Vanderbilt ADHD Diagnostic Rating Scale with results documented at the time of baseline assessment:

- To meet DSM-5 criteria for the diagnosis, one must have at least 6 positive responses to the inattentive 9 or hyperactive 9 core symptoms, or both. A positive response is a 2 or 3 (often, very often).

AND

- The performance measures, scored 1 to 5, with 4 and 5 being somewhat of a problem/problematic are included in the second section of the scale. To meet criteria for ADHD there must be at least 2 items of the performance set in which the child scores a 4, or 1 item of the performance set in which the child scores a 5; i.e., there must be impairment, not just symptoms, to meet diagnostic criteria.

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AND

Child must have baseline mean responses documented for the ADHD symptom screen subsegments for the Vanderbilt ADHD Diagnostic Rating Scale during the 6 months prior to the measurement period. The symptom screens for 3 other comorbidities are the initial scales and include: oppositional-defiant disorder, conduct disorder, and anxiety/depression. (The initial teacher scale also screens for learning disabilities.) These are screened by the number of positive responses in each of the segments.

Exclusions
Unspecified

Exceptions
Unspecified

Numerator Inclusions/Exclusions

Inclusions

Symptom monitoring documentation must include the following:

- a 25% reduction in the mean response for either or both ADHD symptom screen subsegments from baseline:
- To determine the score for follow-up, calculate the mean response for each of the ADHD subsegments. Compare the mean response from the follow-up inattentive subsegment (items 1—9) to the mean response from the inattentive subsegment that was calculated at baseline assessment. Conduct the same comparison for the mean responses for the hyperactive subsegment (items 10—18) taken at follow-up and baseline.

Parent Assessment Scale	Teacher Assessment Scale
Predominantly Inattentive subtype •Must score a 2 or 3 on 6 out of 9 items on questions 1—9. AND •Score a 4 on at least 2, or 5 on at least 1, of the performance questions 48—54.	Predominantly Inattentive subtype •Must score a 2 or 3 on 6 out of 9 items on questions 1—9. AND •Score a 4 on at least 2, or 5 on at least 1, of the performance questions 36—43.
Predominantly Hyperactive/Impulsive subtype •Must score a 2 or 3 on 6 out of 9 items on questions 10—18. AND •Score a 4 on at least 2, or 5 on at least 1, of the performance questions 48—54.	Predominantly Hyperactive/Impulsive subtype •Must score a 2 or 3 on 6 out of 9 items on questions 10—18. AND •Score a 4 on at least 2, or 5 on at least 1, of the performance questions 36—43.

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Parent Assessment Scale	Teacher Assessment Scale
ADHD Combined Inattention/Hyperactivity •Requires the criteria on Inattentive AND Hyperactive/Impulsive subtypes	ADHD Combined Inattention/Hyperactivity •Requires the criteria on Inattentive AND Hyperactive/Impulsive subtypes
Oppositional-Defiant Disorder •Must score a 2 or 3 on 4 out of 8 behaviors on questions 19—26. AND •Score a 4 on at least 2, or 5 on at least 1, of the performance questions 48—54.	Oppositional-Defiant/Conduct Disorder •Must score a 2 or 3 on 3 out of 10 items on questions 19—28. AND •Score a 4 on at least 2, or 5 on at least 1, of the performance questions 36—43.
Conduct Disorder •Must score a 2 or 3 on 3 out of 14 behaviors on questions 27—40. AND •Score a 4 on at least 2, or 5 on at least 1, of the performance questions 48—54.	
Anxiety/Depression •Must score a 2 or 3 on 3 out of 7 behaviors on questions 41—47. AND •Score a 4 on at least 2, or 5 on at least 1, of the performance questions 48—54.	Anxiety/Depression •Must score a 2 or 3 on 3 out of 7 items on questions 29—35. AND •Score a 4 on at least 2, or 5 on at least 1, of the performance questions 36—43.
	Learning Disabilities •Must score a 4 on both, or 5 on 1, of questions 36

* https://www.aap.org/en-us/Documents/sodbp_vanderbilt_scoringinstructions.pdf

Timeframe:
Monitoring of change in symptom complex requires an initial assessment 6 months prior to the measurement period to establish baseline scores and at least one follow-up assessment 6 to 12 months from baseline during the measurement period.

*Note:

- Vanderbilt ADHD Diagnostic Rating Scale

Exclusions
Unspecified

Instruments Used and/or Associated with the Measure

- Vanderbilt ADHD Diagnostic Rating Scale

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Computation of the Measure

Scoring

Rate/Proportion

Interpretation of Score

Desired value is a higher score

Risk Adjustment

No