ADHD: Follow-Up Care for Children Prescribed Attention-Deficit/Hyperactivity Disorder (ADHD) Medication

<table>
<thead>
<tr>
<th>eMeasure Title</th>
<th>ADHD: Follow-Up Care for Children Prescribed Attention-Deficit/Hyperactivity Disorder (ADHD) Medication</th>
</tr>
</thead>
<tbody>
<tr>
<td>eMeasure Identifier (Measure Authoring Tool)</td>
<td>136</td>
</tr>
<tr>
<td>eMeasure Version number</td>
<td>6.0.000</td>
</tr>
<tr>
<td>NQF Number</td>
<td>0108</td>
</tr>
<tr>
<td>GUID</td>
<td>703cc49b-b653-4885-80e8-245a057f5ae9</td>
</tr>
<tr>
<td>Measurement Period</td>
<td>January 1, 20XX through December 31, 20XX</td>
</tr>
<tr>
<td>Measure Steward</td>
<td>National Committee for Quality Assurance</td>
</tr>
<tr>
<td>Measure Developer</td>
<td>National Committee for Quality Assurance</td>
</tr>
<tr>
<td>Endorsed By</td>
<td>National Quality Forum</td>
</tr>
<tr>
<td>Description</td>
<td>Percentage of children 6-12 years of age and newly dispensed a medication for attention-deficit/hyperactivity disorder (ADHD) who had appropriate follow-up care. Two rates are reported. a. Percentage of children who had one follow-up visit with a practitioner with prescribing authority during the 30-Day Initiation Phase. b. Percentage of children who remained on ADHD medication for at least 210 days and who, in addition to the visit in the Initiation Phase, had at least two additional follow-up visits with a practitioner within 270 days (9 months) after the Initiation Phase ended.</td>
</tr>
<tr>
<td>Copyright</td>
<td>The Measures are copyrighted but can be reproduced and distributed, without modification, for noncommercial purposes (eg, use by healthcare providers in connection with their practices). Commercial use is defined as the sale, licensing, or distribution of the Measures for commercial gain, or incorporation of the Measures into a product or service that is sold, licensed or distributed for commercial gain. Commercial use of the Measures requires a license agreement between the user and NCQA. NCQA is not responsible for any use of the Measures. (c) 2008-2016 National Committee for Quality Assurance. All Rights Reserved. Limited proprietary coding is contained in the Measure specifications for user convenience. Users of proprietary code sets should obtain all necessary licenses from the owners of the code sets. NCQA disclaims all liability for use or accuracy of any CPT or other codes contained in the specifications. CPT(R) contained in the Measure specifications is copyright 2004-2015 American Medical Association. LOINC(R) copyright 2004-2015 Regenstrief Institute, Inc. This material contains SNOMED Clinical Terms(R) (SNOMED CT[R]) copyright 2004-2015 International Health Terminology Standards Development Organisation. ICD-10 copyright 2015 World Health Organization. All Rights Reserved.</td>
</tr>
<tr>
<td>Disclaimer</td>
<td>These performance Measures are not clinical guidelines and do not establish a standard of medical care, and have not been tested for all potential applications. THE MEASURES AND SPECIFICATIONS ARE PROVIDED &quot;AS IS&quot; WITHOUT WARRANTY OF ANY KIND. Due to technical limitations, registered trademarks are indicated by (R) or [R] and unregistered trademarks are indicated by (TM) or [TM].</td>
</tr>
<tr>
<td>Measure Scoring</td>
<td>Proportion</td>
</tr>
<tr>
<td>Measure Type</td>
<td>Process</td>
</tr>
<tr>
<td>Stratification</td>
<td>None</td>
</tr>
<tr>
<td>Risk Adjustment</td>
<td>None</td>
</tr>
<tr>
<td>Rate Aggregation</td>
<td>None</td>
</tr>
</tbody>
</table>
| Rationale | Attention-deficit hyperactivity disorder (ADHD) is one of the most prevalent behavioral health diseases in children. A National Survey of Children's Health study found that, in 2007, about 9.5% of children 4 to 17 years of age, or about 5.4 million, had a history of ADHD (CDC 2010). Of those 5.4 million children with a history of ADHD, 78% had a current diagnosis of ADHD at the time of the survey (CDC 2010) and 66.3% of those children were taking medication for the disorder (CDC 2010). A similar survey conducted in 2013 found that about 10% of American children age 3-17 have been diagnosed with ADHD (Bloom et al., 2013). ADHD also incurs substantial financial costs due to medical care and work loss costs for patients and families. The annual average direct cost per ADHD patient is $1,574 dollars compared to $541 dollars among similar individuals without ADHD (Swensen et al. 2003). Additionally, children with ADHD add a higher cost to the education system - on average $5,000 each year for each student with ADHD (Robb et al., 2011). There are many symptoms associated with ADHD. Children with ADHD may experience significant functional problems, such as school difficulties, academic underachievement, troublesome relationships with family members and peers and behavioral problems (American Academy of Pediatrics 2000). For instance, recent studies have found that parents whose children have a history of ADHD report significantly more peer problems and a higher rate of non-
ADHD: Follow-Up Care for Children Prescribed Attention-Deficit/Hyperactivity Disorder (ADHD) Medication

Medication treatment has been found to be effective for managing ADHD, but treatment requires careful monitoring by physicians. Studies have shown that psychostimulants are highly effective for 75-90% of children with ADHD by reducing symptoms of hyperactivity, impulsivity and inattention; improving classroom performance and behavior; and promoting increased interaction with teachers, parents and peers (U.S. Department of Health and Human Services 1999). Some reported adverse effects of stimulant ADHD medications including appetite loss, abdominal pain, headaches, sleep disturbance, decreasing growth velocity, and less commonly, hallucinations and other psychotic symptoms (Wolraich et al. 2011). Therefore, it is important to assess the presence or absence of potential adverse effects before and after a stimulant drug is initiated (Smucker & Hedayat 2001). Monitoring adverse effects from ADHD medication allows physicians to suggest an optimal, alternative treatment. Studies have also shown that treating children with effective medication management can lead to substantially greater improvements in social skills and peer relations compared to children who are not effectively managed (Jensen et al. 2001). Finally, treatments for children with ADHD are frequently not sustained despite the fact that they are at greater risk of significant problems if they discontinue treatment (Wolraich et al. 2011). Effective management mitigates the risk of discontinuing treatment.

Clinical Recommendation Statement

American Academy of Child and Adolescent Psychiatry (AACP) Practice Parameter for the Assessment and Treatment of Children and Adolescents with ADHD

- Overall Guideline
  The key to effective long-term management of the patient with ADHD is continuity of care with a clinician experienced in the treatment of ADHD. The frequency and duration of follow-up sessions should be individualized for each family and patient, depending on the severity of ADHD symptoms; the degree of comorbidity of other psychiatric illness; the response to treatment; and the degree of impairment in home, school, work, or peer-related activities. The clinician should establish an effective mechanism for receiving feedback from the family and other important informants in the patient’s environment to be sure symptoms are well controlled and side effects are minimal. Although this parameter does not seek to set a formula for the method of follow-up, significant contact with the clinician should typically occur two to four times per year in cases of uncomplicated ADHD and up to weekly sessions at times of severe dysfunction or complications of treatment.

- Recommendation 6: A Well-Thought-Out and Comprehensive Treatment Plan Should Be Developed for the Patient With ADHD. The treatment plan should be reviewed regularly and modified if the patient’s symptoms do not respond. Minimal Standard [MS]

- Recommendation 9. During a Psychopharmacological Intervention for ADHD, the Patient Should Be Monitored for Treatment-Emergent Side Effects. Minimal Standard [MS]

- Recommendation 12: Patients Should Be Assessed Periodically to Determine Whether There Is Continued Need for Treatment or If Symptoms Have Remitted. Treatment of ADHD Should Continue as Long as Symptoms Remain Present and Cause Impairment. Minimal Standard [MS]

American Academy of Pediatrics Clinical Practice Guideline for the Diagnosis, Evaluation and Treatment of ADHD in Children and Adolescents

- Action Statement 4: The primary care clinician should recognize ADHD as a chronic condition and, therefore, consider children and adolescents with ADHD as children and youth with special health care needs. Management of children and youth with special health care needs should follow the principles of the chronic care model and the medical home. Grade B: Strong Recommendation

Improvement Notation
Higher score indicates better quality

Reference

Reference

Reference

Reference

Reference

Reference

Additional studies suggest that there is an increased risk for drug use disorders in adolescents with untreated ADHD (National Institute on Drug Abuse, 2010). One of the national objectives of the Department of Health and Human Services Healthy People 2020 initiative is to increase the proportion of children with mental health problems who receive treatment.

file:///C/...idual%20Measure%20Table%20Spects/1.%20html/ADHD-FollowUp-Care-for-Children-Prescribed-ADHD-Medication-366-EHR.html[1/10/2017 9:07:04 AM]
Intake Period: The five-month period starting 90 days prior to the start of the measurement period and ending 60 days after the start of the measurement period.

Index Prescription Start Date (IPSD): The earliest prescription dispensing date for an ADHD medication where the date is in the Intake Period and an ADHD medication was not dispensed during the 120 days prior.

Initiation Phase: The 30 days following the IPSD.

Continuation and Maintenance Phase: The 31-300 days following the IPSD.

CUMULATIVE MEDICATION DURATION is an individual's total number of medication days over a specific period; the period counts multiple prescriptions with gaps in between, but does not count the gaps during which a medication was not dispensed.

To determine the cumulative medication duration, determine first the number of the medication Days for each prescription in the period: the number of doses divided by the dose frequency per day. Then add the Medication Days for each prescription without counting any days between the prescriptions.

For example, there is an original prescription for 30 days with 2 refills for thirty days each. After a gap of 3 months, the medication was prescribed again for 60 days with 1 refill for 60 days. The cumulative medication duration is $(30 \times 3) + (60 \times 2) = 210$ days over the 10 month period.

Transmission Format: TBD

Initial Population:

Initial Population 1: Children 6-12 years of age who were dispensed an ADHD medication during the Intake Period and who had a visit during the measurement period.

Initial Population 2: Children 6-12 years of age who were dispensed an ADHD medication during the Intake Period and who remained on the medication for at least 210 days out of the 300 days following the IPSD, and who had a visit during the measurement period.

Denominator: Equals Initial Population

Denominator Exclusions:

Denominator Exclusion 1: Exclude patients diagnosed with narcolepsy at any point in their history or during the measurement period.

Denominator Exclusion 2: Exclude patients who had an acute inpatient stay with a principal diagnosis of mental health or substance abuse during the 30 days after the IPSD. Exclude patients who were actively on an ADHD medication in the 120 days prior to the Index Prescription Start Date.

Numerator:

Numerator 1: Patients who had at least one face-to-face visit with a practitioner with prescribing authority within 30 days after the IPSD.

Numerator 2: Patients who had at least one face-to-face visit with a practitioner with prescribing authority during the Initiation Phase, and at least two follow-up visits during the Continuation and Maintenance Phase. One of the two visits during the Continuation and Maintenance Phase may be a telephone visit with a practitioner.
### Table of Contents

- Population Criteria
- Data Criteria (QDM Variables)
- Data Criteria (QDM Data Elements)
- Supplemental Data Elements
- Risk Adjustment Variables

#### Population Criteria

<table>
<thead>
<tr>
<th>Numerator Exclusions</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denominator Exceptions</td>
<td>None</td>
</tr>
<tr>
<td>Supplemental Data Elements</td>
<td>For every patient evaluated by this measure also identify payer, race, ethnicity and sex</td>
</tr>
</tbody>
</table>

#### ----- Population Criteria 1 -----

- **Initial Population** =
  - AND: $\$InitialADHDMedication
  - AND: Age\(\geq 6\) year(s) at: "Measurement Period"
  - AND: Age< 12 year(s) at: "Measurement Period"
  - AND: $\$Encounter

- **Denominator** =
  - AND: Initial Population

- **Denominator Exclusions** =
  - OR: "Diagnosis: Narcolepsy" starts before end of "Measurement Period"
  - OR: Union of:
    - "Encounter, Performed: Inpatient Encounter (principal diagnosis: Mental Health Diagnoses)" \(\leq 30\) day(s) starts after end of $\$InitialADHDMedication
    - "Encounter, Performed: Inpatient Encounter (principal diagnosis: Substance Abuse)" \(\leq 30\) day(s) starts after end of $\$InitialADHDMedication
  - OR: "Medication, Active: ADHD Medications" \(\leq 120\) day(s) starts before start of $\$InitialADHDMedication

- **Numerator** =
  - AND: $\$Encounter30DaysAfterInitialADHDMed

- **Numerator Exclusions** =
  - None

- **Denominator Exceptions** =
  - None

- **Stratification** =
  - None

#### ----- Population Criteria 2 -----

- **Initial Population** =
  - AND: $\$InitialADHDMedication
  - AND: Sum\(\geq 210\) day(s): "Medication, Active: ADHD Medications (cumulative medication duration)" \(\leq 300\) day(s) starts after or concurrent with start of $\$InitialADHDMedication
  - AND: Age\(\geq 6\) year(s) at: "Measurement Period"
  - AND: Age< 12 year(s) at: "Measurement Period"
  - AND: $\$Encounter

- **Denominator** =
  - AND: Initial Population

- **Denominator Exclusions** =
  - OR: "Diagnosis: Narcolepsy" starts before end of "Measurement Period"
  - OR: Union of:
    - "Encounter, Performed: Inpatient Encounter (principal diagnosis: Mental Health Diagnoses)" \(\leq 300\) day(s) starts after end of $\$InitialADHDMedication
    - "Encounter, Performed: Inpatient Encounter (principal diagnosis: Substance Abuse)" \(\leq 300\) day(s) starts after end of $\$InitialADHDMedication
  - OR: "Medication, Active: ADHD Medications" \(\leq 120\) day(s) starts before start of $\$InitialADHDMedication

- **Numerator** =
  - AND: $\$Encounter30DaysAfterInitialADHDMed
  - AND:
    - OR: Count\(\geq 2\) : $\$EncounterAfterInitialMedication
    - OR:
      - AND: $\$EncounterAfterInitialMedication
      - AND: Union of:
"Encounter, Performed: Telehealth Services" satisfies all:
  - >= 31 day(s) ends after end of $InitialADHDMedication
  - <= 300 day(s) ends after end of $InitialADHDMedication

"Encounter, Performed: Telephone Management" satisfies all:
  - >= 31 day(s) ends after end of $InitialADHDMedication
  - <= 300 day(s) ends after end of $InitialADHDMedication

- **Numerator Exclusions =**
  - None

- **Denominator Exceptions =**
  - None

- **Stratification =**
  - None

---

**Data Criteria (QDM Variables)**

- **$Encounter =**
  - Union of:
    - "Encounter, Performed: Office Visit"
    - "Encounter, Performed: Face-to-Face Interaction"
    - "Encounter, Performed: Home Healthcare Services"
    - "Encounter, Performed: Preventive Care - Established Office Visit, 0 to 17"
    - "Encounter, Performed: Preventive Care- Initial Office Visit, 0 to 17" during "Measurement Period"

- **$Encounter30DaysAfterInitialADHDMed =**
  - Union of:
    - "Encounter, Performed: Office Visit"
    - "Encounter, Performed: Hospital Observation Care - Initial"
    - "Encounter, Performed: Preventive Care Services - Group Counseling"
    - "Encounter, Performed: Preventive Care Services - Individual Counseling"
    - "Encounter, Performed: Psychotherapy and Pharmacologic Management (facility location: Ambulatory)"
    - "Encounter, Performed: Face-to-Face Interaction"
    - "Encounter, Performed: Discharge Services - Observation Care"
    - "Encounter, Performed: Outpatient Consultation"
    - "Encounter, Performed: Home Healthcare Services"
    - "Encounter, Performed: Preventive Care - Initial Office Visit, 0 to 17"
    - "Encounter, Performed: Preventive Care - Established Office Visit, 0 to 17"
    - "Encounter, Performed: Preventive Care Services - Individual Counseling"
    - "Encounter, Performed: Preventive Care Services - Group Counseling"
    - "Encounter, Performed: Behavioral Health Follow-up Visit"
    - "Encounter, Performed: Psych Visit - Diagnostic Evaluation"
    - "Encounter, Performed: Psych Visit - Psychotherapy" <= 30 day(s) ends after end of $InitialADHDMedication

- **$EncounterAfterInitialMedication =**
  - Union of:
    - "Encounter, Performed: Office Visit" satisfies all:
      - >= 31 day(s) ends after end of $InitialADHDMedication
      - <= 300 day(s) ends after end of $InitialADHDMedication
    - "Encounter, Performed: Hospital Observation Care - Initial" satisfies all:
      - >= 31 day(s) ends after end of $InitialADHDMedication
      - <= 300 day(s) ends after end of $InitialADHDMedication
    - "Encounter, Performed: Preventive Care Services - Group Counseling" satisfies all:
      - >= 31 day(s) ends after end of $InitialADHDMedication
      - <= 300 day(s) ends after end of $InitialADHDMedication
    - "Encounter, Performed: Behavioral Health Follow-up Visit" satisfies all:
      - >= 31 day(s) ends after end of $InitialADHDMedication
      - <= 300 day(s) ends after end of $InitialADHDMedication
    - "Encounter, Performed: Preventive Care Services - Individual Counseling" satisfies all:
      - >= 31 day(s) ends after end of $InitialADHDMedication
      - <= 300 day(s) ends after end of $InitialADHDMedication
    - "Encounter, Performed: Psychotherapy and Pharmacologic Management" satisfies all:
      - >= 31 day(s) ends after end of $InitialADHDMedication
      - <= 300 day(s) ends after end of $InitialADHDMedication
    - "Encounter, Performed: Face-to-Face Interaction" satisfies all:
      - >= 31 day(s) ends after end of $InitialADHDMedication
      - <= 300 day(s) ends after end of $InitialADHDMedication
    - "Encounter, Performed: Discharge Services - Observation Care" satisfies all:
      - >= 31 day(s) ends after end of $InitialADHDMedication
      - <= 300 day(s) ends after end of $InitialADHDMedication
    - "Encounter, Performed: Outpatient Consultation" satisfies all:
      - >= 31 day(s) ends after end of $InitialADHDMedication
      - <= 300 day(s) ends after end of $InitialADHDMedication
    - "Encounter, Performed: Home Healthcare Services" satisfies all:
      - >= 31 day(s) ends after end of $InitialADHDMedication
      - <= 300 day(s) ends after end of $InitialADHDMedication
    - "Encounter, Performed: Preventive Care - Initial Office Visit, 0 to 17" satisfies all:
      - >= 31 day(s) ends after end of $InitialADHDMedication
      - <= 300 day(s) ends after end of $InitialADHDMedication
ADHD: Follow-Up Care for Children Prescribed Attention-Deficit/Hyperactivity Disorder (ADHD) Medication

- "Encounter, Performed: Preventive Care - Established Office Visit, 0 to 17" satisfies all:
  - >= 31 day(s) ends after end of $InitialADHDMedication
  - <= 300 day(s) ends after end of $InitialADHDMedication
- "Encounter, Performed: Psych Visit - Diagnostic Evaluation" satisfies all:
  - >= 31 day(s) ends after end of $InitialADHDMedication
  - <= 300 day(s) ends after end of $InitialADHDMedication
- "Encounter, Performed: Psych Visit - Psychotherapy" satisfies all:
  - >= 31 day(s) ends after end of $InitialADHDMedication
  - <= 300 day(s) ends after end of $InitialADHDMedication

$InitialADHDMedication =
  - First: Union of:
    - "Medication, Dispensed: ADHD Medications" <= 60 day(s) starts after start of "Measurement Period"
    - "Medication, Dispensed: ADHD Medications" <= 90 day(s) starts before or concurrent with start of "Measurement Period"

Data Criteria (QDM Data Elements)

- "Diagnosis: Narcolepsy" using "Narcolepsy Grouping Value Set (2.16.840.1.113883.3.464.1003.114.12.1011)"
- "Encounter, Performed: Behavioral Health Follow-up Visit" using "Behavioral Health Follow-up Visit Grouping Value Set (2.16.840.1.113883.3.464.1003.101.12.1054)"
- "Encounter, Performed: Discharge Services- Observation Care" using "Discharge Services- Observation Care Grouping Value Set (2.16.840.1.113883.3.464.1003.101.12.1039)"
- "Encounter, Performed: Face-to-Face Interaction" using "Face-to-Face Interaction Grouping Value Set (2.16.840.1.113883.3.464.1003.101.12.1048)"
- "Encounter, Performed: Hospital Observation Care - Initial" using "Hospital Observation Care - Initial Grouping Value Set (2.16.840.1.113883.3.464.1003.101.12.1002)"
- "Encounter, Performed: Inpatient Encounter" using "Inpatient Encounter Grouping Value Set (2.16.840.1.113883.3.464.1003.101.12.1060)"
- "Encounter, Performed: Office Visit" using "Office Visit Grouping Value Set (2.16.840.1.113883.3.464.1003.101.12.1001)"
- "Encounter, Performed: Outpatient Consultation" using "Outpatient Consultation Grouping Value Set (2.16.840.1.113883.3.464.1003.101.12.1008)"
- "Encounter, Performed: Preventive Care - Established Office Visit, 0 to 17" using "Preventive Care - Established Office Visit Grouping Value Set (2.16.840.1.113883.3.464.1003.101.12.1024)"
- "Encounter, Performed: Preventive Care Services - Group Counseling" using "Preventive Care Services - Group Counseling Grouping Value Set (2.16.840.1.113883.3.464.1003.101.12.1027)"
- "Encounter, Performed: Preventive Care Services-Individual Counseling" using "Preventive Care Services-Individual Counseling Grouping Value Set (2.16.840.1.113883.3.464.1003.101.12.1026)"
- "Encounter, Performed: Preventive Care- Initial Office Visit, 0 to 17" using "Preventive Care- Initial Office Visit Grouping Value Set (2.16.840.1.113883.3.464.1003.101.12.1022)"
- "Encounter, Performed: Psych Visit - Diagnostic Evaluation" using "Psych Visit - Diagnostic Evaluation Grouping Value Set (2.16.840.1.113883.3.526.3.1492)"
- "Encounter, Performed: Psych Visit - Psychotherapy" using "Psych Visit - Psychotherapy Grouping Value Set (2.16.840.1.113883.3.526.3.1496)"
- "Encounter, Performed: Telehealth Services" using "Telehealth Services Grouping Value Set (2.16.840.1.113883.3.464.1003.101.12.1031)"
- "Encounter, Performed: Telephone Management" using "Telephone Management Grouping Value Set (2.16.840.1.113883.3.464.1003.101.12.1053)"
- "Medication, Active: ADHD Medications" using "ADHD Medications Grouping Value Set (2.16.840.1.113883.3.464.1003.196.12.1171)"
- "Medication, Dispensed: ADHD Medications" using "ADHD Medications Grouping Value Set (2.16.840.1.113883.3.464.1003.196.12.1171)"
- "Attribute: "Principal diagnosis: Substance Abuse" using "Substance Abuse Grouping Value Set (2.16.840.1.113883.3.464.1003.106.12.1004)"
- "Attribute: "Principal diagnosis: Mental Health Diagnoses" using "Mental Health Diagnoses Grouping Value Set (2.16.840.1.113883.3.464.1003.105.12.1004)"

Supplemental Data Elements

- "Patient Characteristic Ethnicity: Ethnicity" using "Ethnicity CDCREC Value Set (2.16.840.1.114222.4.11.837)"
- "Patient Characteristic Payer: Payer" using "Payer SOP Value Set (2.16.840.1.114222.4.11.3591)"
- "Patient Characteristic Race: Race" using "Race CDCREC Value Set (2.16.840.1.114222.4.11.836)"
- "Patient Characteristic Sex: ONC Administrative Sex" using "ONC Administrative Sex AdministrativeGender Value Set (2.16.840.1.113762.1.4.1)"

Risk Adjustment Variables
None

<table>
<thead>
<tr>
<th>Measure Set</th>
<th>None</th>
</tr>
</thead>
</table>

ADHD: Follow-Up Care for Children Prescribed Attention-Deficit/Hyperactivity Disorder (ADHD) Medication