Title: Use of Multiple Concurrent Antipsychotics in Children and Adolescents (APC)

CMS ID: PP7

NQF #: N/A

Source(s)

National Committee for Quality Assurance (NCQA). HEDIS 2016: Healthcare Effectiveness Data and Information Set. Vol. 1, narrative. Washington (DC): National Committee for Quality Assurance (NCQA); 2015. various p.

National Committee for Quality Assurance (NCQA). HEDIS 2016: Healthcare Effectiveness Data and Information Set. Vol. 2, technical specifications for health plans. Washington (DC): National Committee for Quality Assurance (NCQA); 2015. various p.

NQS Measure Domain

Effective Clinical Care

Meaningful Measure Area

Medication Management

High Priority Status

N/A

Type of Measure

Inverse Measure

Proportional Measure

Brief Abstract

Description

This measure is used to assess the percentage of children and adolescents 1 to 17 years of age who were on two or more concurrent antipsychotic medications.

Rationale

Antipsychotic prescribing for children has increased rapidly in recent decades, driven by new prescriptions and by longer duration of use (Patten, Waheed, & Bresee, 2012). The frequency of prescribing antipsychotics among youth increased almost fivefold from 1996 to 2002, from 8.6 per 1,000

children to 39.4 per 1,000 (Cooper et al., 2006). Although some evidence supports the efficacy of antipsychotics in youth for certain narrowly defined conditions, less is known about the safety and effectiveness of antipsychotic prescribing patterns in community use (e.g., combinations of medications, off-label prescribing, dosing outside of recommended ranges).

Both the efficacy and side effects of antipsychotic medications vary by age. Children and adolescents prescribed antipsychotics are more at risk for serious health concerns, including weight gain, extrapyramidal side effects, hyperprolactinemia and some metabolic effects (Correll, Kratochvil, & March, 2011). This suggests that use of multiple concurrent antipsychotics may pose differing risks for children and adolescents compared with adults. While there is no research on long-term effects of multiple concurrent antipsychotics on children's health, the increased side effect burden of certain antipsychotic medications for youth has implications for future physical health concerns including obesity and diabetes. Girls treated with certain antipsychotics may also be at increased risk for gynecological problems (Talib & Alderman, 2013) and osteoporosis (Cohen et al., 2012). Risks of multiple concurrent antipsychotics, compared with monotherapy, have not been systematically investigated; existing evidence appears largely in case reports (Safer, Zito, & DosReis, 2003). In general, the field also lacks high-quality studies of side effects associated with the use of multiple concurrent antipsychotic medications in adults (Lochmann van Bennekom, Gijsman, & Zitman, 2013).

The American Academy of Child and Adolescent Psychiatry (AACAP) (2011) recommends that clinicians avoid the simultaneous use of multiple concurrent antipsychotic medications for children and adolescents.

Evidence for Rationale

1. American Academy of Child and Adolescent Psychiatry (AACAP). Practice parameter for the use of atypical antipsychotic medications in children and adolescents. Washington (DC): American Academy of Child and Adolescent Psychiatry (AACAP); 2011. 27 p.
2. Cohen D, Bonnot O, Bodeau N, Consoli A, Laurent C. Adverse effects of second-generation antipsychotics in children and adolescents: a Bayesian meta-analysis. J Clin Psychopharmacol. 2012 Jun;32(3):309-16.
3. Cooper WO, Arbogast PG, Ding H, Hickson GB, Fuchs DC, Ray WA. Trends in prescribing of antipsychotic medications for US children. Ambul Pediatr. 2006 Mar-Apr;6(2):79-83.
4. Correll CU, Kratochvil CJ, March JS. Developments in pediatric psychopharmacology: focus on stimulants, antidepressants, and antipsychotics. J Clin Psychiatry. 2011 May;72(5):655-70.
5. Lochmann van Bennekom MW, Gijsman HJ, Zitman FG. Antipsychotic polypharmacy in psychotic disorders: a critical review of neurobiology, efficacy, tolerability and cost effectiveness. J Psychopharmacol (Oxford). 2013 Apr;27(4):327-36.

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6. National Committee for Quality Assurance (NCQA). HEDIS 2016: Healthcare Effectiveness Data and Information Set. Vol. 1, narrative. Washington (DC): National Committee for Quality Assurance (NCQA); 2015. various p.
7. Patten SB, Waheed W, Bresee L. A review of pharmacoepidemiologic studies of antipsychotic use in children and adolescents. Can J Psychiatry. 2012 Dec;57(12):717-21.
8. Safer DJ, Zito JM, DosReis S. Concomitant psychotropic medication for youths. Am J Psychiatry. 2003 Mar;160(3):438-49.
9. Talib HJ, Alderman EM. Gynecologic and reproductive health concerns of adolescents using selected psychotropic medications. J Pediatr Adolesc Gynecol. 2013 Feb;26(1):7-15.

Primary Health Components

Antipsychotic medications; children; adolescents

Denominator Description

Children and adolescents age 1 to 17 years as of December 31 of the measurement year with 90 days of continuous antipsychotic medication treatment during the measurement year.

See the related "Denominator Inclusions/Exclusions" field.

Numerator Description

Members on two or more concurrent antipsychotic medications for at least 90 consecutive days during the measurement year.

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
- A formal consensus procedure, involving experts in relevant clinical, methodological, public health and organizational sciences
- One or more research studies published in a National Library of Medicine (NLM) indexed, peer-reviewed journal

Extent of Measure Testing

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All HEDIS measures undergo systematic assessment of face validity with review by measurement advisory panels, expert panels, a formal public comment process and approval by the National Committee for Quality Assurance's (NCQA's) Committee on Performance Measurement and Board of Directors. Where applicable, measures also are assessed for construct validity using the Pearson correlation test. All measures undergo formal reliability testing of the performance measure score using beta-binomial statistical analysis.

Refer to the references listed below for further information.

Evidence for Extent of Measure Testing

Rehm B. (Assistant Vice President, Performance Measurement, National Committee for Quality Assurance, Washington, DC). Personal communication. 2015 Mar 16. 1 p.

Data Collection for the Measure

Case Finding Period

The measurement year

Denominator Sampling Frame

Patients associated with provider

Denominator (Index) Event or Characteristic

Patient/Individual (Consumer) Characteristic

Therapeutic Intervention

Denominator Inclusions/Exclusions/Exceptions

Inclusions

Children and adolescents age 1 to 17 years as of December 31 of the measurement year with 90 days of continuous antipsychotic medication treatment during the measurement year

- Identify patients in the specified age range who were dispensed an antipsychotic medication during the measurement year. Refer to Table for Measure ID APC (http://www.ncqa.org/hedis-quality-measurement/hedis-measures/hedis-2018/hedis-2018-ndc-license/hedis-2018-final-ndc-lists).

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- For each patient, identify all antipsychotic medication dispensing events (prescriptions) during the measurement year.
- For each patient, identify those with greater than or equal to 90 consecutive treatment days.

Exclusions
Unspecified

Exceptions
Unspecified

Numerator Inclusions/Exclusions

Inclusions

Patients on two or more concurrent antipsychotic medications for at least 90 consecutive days during the measurement year

Exclusions
Unspecified

Computation of the Measure

Scoring

Rate/Proportion

Interpretation of Score

Desired value is a lower score

Risk Adjustment

No