

Title: Annual monitoring for patients on persistent medications

CMS ID: PP1

NQF #: 2371

Source(s)

National Committee for Quality Assurance (NCQA). HEDIS 2016 Vol 2, technical specifications for Health Plans. Washington (DC): National Committee for Quality Assurance (NCQA); 2015. various p.

Measure Domain

Clinical Quality Measures: Process

Brief Abstract

Description

This measure is used to assess the percentage of patients 18 years of age and older who received at least 180 treatment days of ambulatory medication therapy for a select therapeutic agent during the measurement year and at least one therapeutic monitoring event for the therapeutic agent in the measurement year. Report each of the three rates separately and as a total rate.

- Annual monitoring for patients on angiotensin converting enzyme (ACE) inhibitors or angiotensin receptor blockers (ARBs)
- Annual monitoring for patients on digoxin
- Annual monitoring for patients on diuretics
- Total rate (the sum of the three numerators divided by the sum of the three denominators)

This measure summary represents the total rate.

Rationale

Patient safety is highly important, especially for patients at increased risk of adverse drug events from long-term medication use. Persistent use of these drugs warrants monitoring and follow-up by the prescribing physician to assess for side-effects and adjust drug dosage/therapeutic decisions accordingly. The drugs included in this measure have deleterious effects in the elderly

The costs of annual monitoring are offset by the reduction in health care costs associated with complications arising from lack of monitoring and follow-up of patients on long-term medications. The total costs of drug-related problems due to misuse of drugs in the ambulatory setting has been estimated to exceed \$76 billion annually (Johnson & Bootman, 1995)

Appropriate monitoring of drug therapy remains a significant issue to guide therapeutic decision making and provides largely unmet opportunities for improvement in care for patients on persistent medications (Classen, 2003). Although there are no specific clinical guideline recommendations on the frequency of monitoring for the drugs identified in the measure, annual monitoring represents a

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conservative standard of care and is supported by U.S. Food and Drug Administration (FDA) drug labeling recommendations for each drug.

Evidence for Rationale

1. Classen D. Medication safety: moving from illusion to reality. JAMA. 2003 Mar 5;289(9):1154-6. [PubMed](#)
2. Johnson JA, Bootman JL. Drug-related morbidity and mortality. A cost-of-illness model. Arch Intern Med. 1995 Oct 9;155(18):1949-56. [PubMed](#)
3. 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.

Primary Health Components

Persistent medication therapy; therapeutic monitoring; annual monitoring; angiotensin converting enzyme (ACE) inhibitors; angiotensin receptor blockers (ARBs); digoxin; diuretics

Denominator Description

- *Rate 1: Annual monitoring for patients on angiotensin converting enzyme (ACE) inhibitors or angiotensin receptor blockers (ARBs):* Patients age 18 years and older as of December 31 of the measurement year who received at least 180 treatment days of ACE inhibitors or ARBs during the measurement year
- *Rate 2: Annual monitoring for patients on digoxin:* Patients age 18 years and older as of December 31 of the measurement year who received at least 180 treatment days of digoxin during the measurement year
- *Rate 3: Annual monitoring for patients on diuretics:* Patients age 18 years and older as of December 31 of the measurement year who received at least 180 treatment days of a diuretic during the measurement year

See the related "Denominator Inclusions/Exclusions" field.

Numerator Description

- *Rate 1: Annual monitoring for patients on angiotensin converting enzyme (ACE) inhibitors or angiotensin receptor blockers (ARBs):* At least one serum potassium and a serum creatinine therapeutic monitoring test in the measurement year
- *Rate 2: Annual monitoring for patients on digoxin:* At least one serum potassium, at least one serum creatinine, and at least one serum digoxin therapeutic monitoring test in the measurement year
- *Rate 3: Annual monitoring for patients on diuretics:* At least one serum potassium and a serum creatinine therapeutic monitoring test in the measurement year

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See the related "Numerator Inclusions/Exclusions" field.

Evidence Supporting the Measure

Type of Evidence Supporting the Criterion of Quality for the Measure

- 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

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. Once NCQA establishes national benchmarks for accountable care organization (ACO) performance, all measures will undergo formal reliability testing of the performance measure score using beta-binomial statistical analysis. Where applicable, measures also are assessed for construct validity using the Pearson correlation test.

Evidence for Extent of Measure Testing

Rehm B. (Assistant Vice President, Performance Measurement, National Committee for Quality Assurance, Washington, DC). Personal communication. 2015 Apr 8. 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

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Therapeutic Intervention

Denominator Inclusions/Exclusions/Exceptions

Inclusions

- *Rate 1: Annual monitoring for patients on angiotensin converting enzyme (ACE) inhibitors or angiotensin receptor blockers (ARBs):* Patients age 18 years and older as of December 31 of the measurement year who received at least 180 treatment days of ACE inhibitors or ARBs, during the measurement year. Refer to Table ACDC-L in the original measure documentation for a list of ACE inhibitors and ARBs.
- *Rate 2: Annual monitoring for patients on digoxin:* Patients age 18 years and older as of December 31 of the measurement year who received at least 180 treatment days of digoxin during the measurement year. Refer to Table AMPM-B in the original measure documentation for a list of drugs to identify patients on digoxin.
- *Rate 3: Annual monitoring for patients on diuretics:* Patients age 18 years and older as of December 31 of the measurement year who received at least 180 treatment days of a diuretic, during the measurement year. Refer to Table AMPM-C in the original measure documentation for a list of drugs to identify patients on diuretics.

Note:

- Treatment days are the actual number of calendar days covered with medication in the measurement year (i.e., a prescription of 90 days supply dispensed or written on December 1 of the measurement year counts as 30 treatment days). Sum the days supply for all medications and subtract any days supply that extends beyond December 31 of the measurement year. Treatment days begin on the date the medication was dispense or prescribed.
- *Rate 1:* Patients may switch therapy with any medication listed in Table ACDC-L during the measurement year and have the treatment days for those medications count toward the total 180 treatment days (i.e., a patient who received 90 days of ACE inhibitors and 90 days of ARBs meets the denominator definition for Rate 1).
- *Rate 3:* Patients may switch therapy with any medication listed in Table AMPM-C during the measurement year and have the treatment days for those medications count towards the total 180 treatment days.

Exclusions

Patients from each rate who had an inpatient (acute or nonacute) claim/encounter during the measurement year.

Exceptions

N/A

Value Set Information

Measure specifications reference value sets that must be used for HEDIS reporting. A value set is the complete set of codes used to identify the service(s) or condition(s) included in the measure. Refer to the NCQA Web site to purchase *HEDIS 2015 Technical Specifications for ACO Measurement*, which includes the Value Set Directory.

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Numerator Inclusions/Exclusions

Inclusions

- *Rate 1: Annual monitoring for patients on angiotensin converting enzyme (ACE) inhibitors or angiotensin receptor blockers (ARBs):* At least one serum potassium and a serum creatinine therapeutic monitoring test in the measurement year. Either of the following during the measurement year meet criteria:
 - A lab panel test (Lab Panel Value Set)
 - A serum potassium test (Serum Potassium Value Set) *and* a serum creatinine test (Serum Creatinine Value Set)
- *Rate 2: Annual monitoring for patients on digoxin:* At least one serum potassium, at least one serum creatinine, and at least one serum digoxin therapeutic monitoring test in the measurement year. Either of the following during the measurement year meet criteria:
 - A lab panel test (Lab Panel Value Set) *and* a serum digoxin text (Digoxin Level Value Set)
 - A serum potassium test (Serum Potassium Value Set) *and* a serum creatinine test (Serum Creatinine Value Set) *and* a serum digoxin text (Digoxin Level Value Set)
- *Rate 3: Annual monitoring for patients on diuretics:* At least one serum potassium and a serum creatinine therapeutic monitoring test in the measurement year. Either of the following during the measurement year meet criteria:
 - A lab panel test (Lab Panel Value Set)
 - A serum potassium test (Serum Potassium Value Set) *and* a serum creatinine test (Serum Creatinine Value Set)

Note:

- The tests do not need to occur on the same service date, only in the measurement year.
- Total rate (the sum of the three numerators divided by the sum of the three denominators)

Exclusions

Unspecified

Value Set Information

Measure specifications reference value sets that must be used for HEDIS reporting. A value set is the complete set of codes used to identify the service(s) or condition(s) included in the measure. Refer to the NCQA Web site to purchase *HEDIS 2015 Technical Specifications for ACO Measurement*, which includes the Value Set Directory.

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Computation of the Measure

Measure Specifies Disaggregation

Measure is disaggregated into categories based on different definitions of the denominator and/or numerator

Basis for Disaggregation

This measure is disaggregated based on different definitions of the denominator and numerator. Report each of the three rates separately and as a combined rate.

Denominators:

- *Rate 1: Annual monitoring for patients on angiotensin converting enzyme (ACE) inhibitors or angiotensin receptor blockers (ARBs):* Patients age 18 years and older as of December 31 of the measurement year who received at least 180 treatment days of ACE inhibitors or ARBs, during the measurement year.
- *Rate 2: Annual monitoring for patients on digoxin:* Patients age 18 years and older as of December 31 of the measurement year who received at least 180 treatment days of digoxin during the measurement year.
- *Rate 3: Annual monitoring for patients on diuretics:* Patients age 18 years and older as of December 31 of the measurement year who received at least 180 treatment days of a diuretic, during the measurement year.

Numerators:

- *Rate 1: Annual monitoring for patients on angiotensin converting enzyme (ACE) inhibitors or angiotensin receptor blockers (ARBs):* At least one serum potassium and a serum creatinine therapeutic monitoring test in the measurement year.
- *Rate 2: Annual monitoring for patients on digoxin:* At least one serum potassium, at least one serum creatinine, and at least one serum digoxin therapeutic monitoring test in the measurement year.
- *Rate 3: Annual monitoring for patients on diuretics:* At least one serum potassium and a serum creatinine therapeutic monitoring test in the measurement year.

Scoring

Rate/Proportion

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Interpretation of Score

Desired value is a higher score

Risk Adjustment

No