General

Title
Appropriate testing for children with pharyngitis: percentage of children 3 to 18 years of age who were diagnosed with pharyngitis, dispensed an antibiotic, and received a group A streptococcus (strep) test for the episode.

Source(s)


Measure Domain

Primary Measure Domain
Clinical Quality Measures: Process

Secondary Measure Domain
Does not apply to this measure

Brief Abstract

Description
This measure is used to assess the percentage of children 3 to 18 years of age who were diagnosed with pharyngitis, dispensed an antibiotic, and received a group A streptococcus (strep) test for the episode.

Rationale
Pharyngitis is the only condition among upper respiratory infections (URIs) where diagnosis is validated easily and objectively through administrative and laboratory data, and it can serve as an important indicator of appropriate antibiotic use among all respiratory tract infections. Overuse of antibiotics has been directly linked to the prevalence of antibiotic resistance; promoting judicious use of antibiotics is important to reducing levels of antibiotic resistance (Gonzales et al., 2001). Pediatric clinical practice guidelines (Schwartz et al., 1998) recommend that only children diagnosed with group A streptococcus (strep) pharyngitis, based on appropriate lab tests, be treated with antibiotics. A strep test (rapid
assay or throat culture) is the definitive test of group A strep pharyngitis. Excess use of antibiotics is highly prevalent for pharyngitis: about 35 percent of the total 9 million antibiotics prescribed for pharyngitis in 1998 were estimated to be in excess (Seppala et al., 1997).

Evidence for Rationale


Primary Health Components

Pharyngitis; antibiotics; group A streptococcus (strep) test; children

Denominator Description

Children 3 years of age as of July 1 of the year prior to the measurement year to 18 years of age as of June 30 of the measurement year, with a Negative Medication History, who had an outpatient visit, an observation visit or an emergency department (ED) visit with only a diagnosis of pharyngitis and a dispensed antibiotic for that episode of care during the Intake Period (see the related "Denominator Inclusions/Exclusions" field)

Numerator Description

A group A streptococcus (strep) test in the seven-day period from three days prior to the Index Episode Start Date (IESD) through three days after the IESD (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

Additional Information Supporting Need for the Measure

- Pharyngitis, or sore throat, is a leading cause of pediatric ambulatory care visits and can be caused by a virus or by bacteria (Simon, 2014). Viral pharyngitis does not require antibiotic treatment, but antibiotics continue to be inappropriately prescribed. Inappropriate treatment with antibiotics can lead to antibiotic resistance (when antibiotics can no longer cure bacterial infections) (Centers for Disease Control and Prevention [CDC], "Antibiotics aren't," 2013), which makes it essential that children with pharyngitis have appropriate testing, diagnosis and treatment.
- Pharyngitis caused by bacteria accounts for only about 30 percent of all cases of pharyngitis in children (Huang et al., 2014).
Despite improvements in antibiotic prescribing for children with pharyngitis, a substantial number of patients still receive inappropriate antibiotic treatment (Shulman et al., 2012).

Treating pharyngitis in children costs the United States approximately $224 to $539 million each year (Pfoh et al., 2008).

Each year in the United States, at least 2 million people become infected with antibiotic-resistant bacteria and at least 23,000 people die as a direct result (CDC, "Antibiotic resistance," 2013).

Antibiotics are often used inappropriately to treat pharyngitis that is not caused by bacteria. Proper testing and treatment of pharyngitis would prevent the spread of sickness, while reducing the unnecessary use of antibiotics (CDC, "Is it strep," 2013).

Evidence for Additional Information Supporting Need for the Measure


Centers for Disease Control and Prevention (CDC). Antibiotics aren’t always the answer. [internet]. Atlanta (GA): Centers for Disease Control and Prevention (CDC); 2013 [accessed 2014 Jun 19].


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. 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.

Evidence for Extent of Measure Testing


State of Use of the Measure
State of Use
Current routine use

Current Use
not defined yet

Application of the Measure in its Current Use

Measurement Setting
Ambulatory/Office-based Care
Emergency Department
Hospital Outpatient
Managed Care Plans

Professionals Involved in Delivery of Health Services
not defined yet

Least Aggregated Level of Services Delivery Addressed
Single Health Care Delivery or Public Health Organizations

Statement of Acceptable Minimum Sample Size
Unspecified

Target Population Age
Age 3 to 18 years

Target Population Gender
Either male or female

National Strategy for Quality Improvement in Health Care

National Quality Strategy Aim
Better Care

National Quality Strategy Priority
Institute of Medicine (IOM) National Health Care Quality Report Categories

IOM Care Need
Getting Better

IOM Domain
Effectiveness

Data Collection for the Measure

Case Finding Period
A 12-month window that begins on July 1 of the year prior to the measurement year and ends on June 30 of the measurement year

Denominator Sampling Frame
Enrollees or beneficiaries

Denominator (Index) Event or Characteristic
Clinical Condition
Encounter
Patient/Individual (Consumer) Characteristic
Therapeutic Intervention

Denominator Time Window
not defined yet

Denominator Inclusions/Exclusions

Inclusions
Children 3 years of age as of July 1 of the year prior to the measurement year to 18 years of age as of June 30 of the measurement year, with Negative Medication History, who had an outpatient or emergency department (ED) visit with only a diagnosis of pharyngitis and a dispensed antibiotic for that episode of care during the Intake Period

- Identify all members who had an outpatient visit (Outpatient Value Set), an observation visit (Observation Value Set) or an emergency department (ED) visit (ED Value Set) with only a diagnosis of pharyngitis (Pharyngitis Value Set).
- Determine all pharyngitis Episode Dates. For each member, determine all outpatient or ED claims/encounters with only a diagnosis of pharyngitis.
- Determine if antibiotics were dispensed for any of the Episode Dates. For each Episode Date with a qualifying diagnosis, determine if
antibiotics were dispensed on or up to three days after. Refer to Table CWP-C in the original measure documentation for a list of antibiotic medications.

Note:
- Children must have been continuously enrolled 30 days prior to the Episode Date through 3 days after the Episode Date (34 total days).
- Allowable Gap: No gaps in enrollment during the continuous enrollment period.
- Episode Date: The date of service for any outpatient or ED visit during the Intake Period with only a diagnosis of pharyngitis.
- Negative Medication History: To qualify for Negative Medication History, the following criteria must be met:
  - A period of 30 days prior to the Episode Date, when the member had no pharmacy claims for either new or refill prescriptions for a listed antibiotic drug.
  - No prescriptions filled more than 30 days prior to the Episode Date that are active on the Episode Date.
- A prescription is considered active if the “days supply” indicated on the date when the member filled the prescription is the number of days or more between that date and the relevant service date. The 30-day look back period for pharmacy data includes the 30 days prior to the Intake Period.
- Intake Period: A 12-month window that begins on July 1 of the year prior to the measurement year and ends on June 30 of the measurement year. The Intake Period is used to capture eligible episodes of treatment.

Exclusions
- Exclude claims/encounters with more than one diagnosis and exclude ED visits that result in an inpatient admission.
- Exclude Episode Dates if the member did not receive antibiotics on or three days after the Episode Date.
- Test for Negative Medication History. Exclude Episode Dates where a new or refill prescription for an antibiotic medication was filled 30 days prior to the Episode Date or where a prescription filled more than 30 days prior to the Episode Date was active on the Episode Date. Refer to Table CWP-C in the original measure documentation for a list of antibiotic medications.

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 Volume 2, which includes the Value Set Directory.

Exclusions/Exceptions
not defined yet

Numerator Inclusions/Exclusions
Inclusions
A group A streptococcus (strep) test (Group A Strep Tests Value Set) in the seven-day period from three days prior to the Index Episode Start Date (IESD) through three days after the IESD.

Note: IESD: The earliest Episode Date during the Intake Period that meets all of the following criteria:
- Linked to a dispensed antibiotic prescription on or during the three days after the Episode Date.
- A 30-day Negative Medication History prior to the Episode Date.
- The member was continuously enrolled during the 30 days prior to the Episode Date through 3 days after the Episode Date.

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 Volume 2, which includes the Value Set Directory.

Numerator Search Strategy
Fixed time period or point in time

Data Source
Administrative clinical data
Pharmacy data

Type of Health State
Does not apply to this measure

Instruments Used and/or Associated with the Measure
Unspecified

Computation of the Measure

Measure Specifies Disaggregation
Does not apply to this measure

Scoring
Rate/Proportion

Interpretation of Score
Desired value is a higher score

Allowance for Patient or Population Factors
not defined yet

Description of Allowance for Patient or Population Factors
This measure requires that separate rates be reported for commercial and Medicaid product lines.

Standard of Comparison
not defined yet

Identifying Information

Original Title
Appropriate testing for children with pharyngitis (CWP).

Measure Collection Name
HEDIS 2016: Health Plan Collection
Measure Set Name
Effectiveness of Care

Measure Subset Name
Respiratory Conditions

Submitter
National Committee for Quality Assurance - Health Care Accreditation Organization

Developer
National Committee for Quality Assurance - Health Care Accreditation Organization

Funding Source(s)
Unspecified

Composition of the Group that Developed the Measure
National Committee for Quality Assurance's (NCQA's) Measurement Advisory Panels (MAPs) are composed of clinical and research experts with an understanding of quality performance measurement in the particular clinical content areas.

Financial Disclosures/Other Potential Conflicts of Interest
In order to fulfill National Committee for Quality Assurance's (NCQA's) mission and vision of improving health care quality through measurement, transparency and accountability, all participants in NCQA's expert panels are required to disclose potential conflicts of interest prior to their participation. The goal of this Conflict Policy is to ensure that decisions which impact development of NCQA's products and services are made as objectively as possible, without improper bias or influence.

Measure Initiative(s)
Physician Quality Reporting System

Adaptation
This measure was not adapted from another source.

Date of Most Current Version in NQMC
2015 Oct

Measure Maintenance
Unspecified
Date of Next Anticipated Revision
Unspecified

Measure Status
This is the current release of the measure.
This measure updates previous versions:

Measure Availability
Source available for purchase from the National Committee for Quality Measurement (NCQA) Web site.
For more information, contact NCQA at 1100 13th Street, NW, Suite 1000, Washington, DC 20005; Phone: 202-955-3500; Fax: 202-955-3599; Web site: www.ncqa.org.

Companion Documents
The following are available:
For more information, contact the National Committee for Quality Assurance (NCQA) at 1100 13th Street, NW, Suite 1000, Washington, DC 20005; Phone: 202-955-3500; Fax: 202-955-3599; Web site: www.ncqa.org.

NQMC Status
This NQMC summary was completed by ECRI on June 16, 2006. The information was not verified by the measure developer.
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Production

Source(s)


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