Domain: Efficiency and Cost Reduction

2018 OPTIONS FOR INDIVIDUAL MEASURES:
REGISTRY ONLY

MEASURE TYPE:
Process

DESCRIPTION:
Percentage of children 3-18 years of age who were diagnosed with pharyngitis, ordered an antibiotic and received a group A streptococcus (strep) test for the episode

INSTRUCTIONS:
This measure is to be submitted once for each occurrence of pharyngitis during the performance period. Claims data will be analyzed to determine unique occurrences. This measure is intended to reflect the quality of services provided for the primary management of patients with pharyngitis who were dispensed an antibiotic. This measure may be submitted by eligible clinicians who perform the quality actions described in the measure based on the services provided and the measure-specific denominator coding.

Measure Submission:
The listed denominator criteria is used to identify the intended patient population. The numerator options included in this specification are used to submit the quality actions allowed by the measure. The quality-data codes listed do not need to be submitted for registry-based submissions; however, these codes may be submitted for those registries that utilize claims data.

DENOMINATOR:
Children 3 - 18 years of age who had an outpatient or emergency department (ED) visit with a diagnosis of pharyngitis during the measurement period and an antibiotic ordered on or three days after the visit

Denominator Instructions: To determine eligibility, look for any of the listed antibiotic drugs below in the 30 days prior to the visit with the pharyngitis diagnosis. As long as there are no prescriptions for the listed antibiotics during this time period, the patient is eligible for denominator inclusion.

DENOMINATOR NOTE: *Signifies that this CPT Category I code is a non-covered service under the Medicare Part B Physician Fee Schedule (PFS). These non-covered services should be counted in the denominator population for registry-based measures.

Denominator Criteria (Eligible Cases):
Patients aged 3 to 18 years on date of encounter
AND
Diagnosis for pharyngitis (ICD-10-CM): J02.0, J02.8, J02.9, J03.00, J03.01, J03.80, J03.81, J03.90, J03.91
AND
Patient encounter during the performance period (CPT or HCPCS): 96160, 96161, 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99217, 99218, 99219, 99220, 99241*, 99242*, 99243*, 99244*, 99245*, 99341, 99342, 99344, 99345, 99346, 99347, 99348, 99349, 99350, 99401*, 99402*, 99403*, 99411*, 99412*, 99429*, 99455, 99456, 99281, 99282, 99283, 99284, 99285, G0402
AND
Prescribed or dispensed antibiotic: G8711
AND NOT
DENOMINATOR EXCLUSIONS:
Patients who use hospice services any time during the measurement period: G9702
OR
Children who are taking antibiotics in the 30 days prior to the diagnosis of pharyngitis: G9703

Table 1 - Antibiotic Medications

<table>
<thead>
<tr>
<th>Description</th>
<th>Prescription</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aminopenicillins</td>
<td>Amoxicillin</td>
</tr>
<tr>
<td></td>
<td>Ampicillin</td>
</tr>
<tr>
<td>Beta-lactamase inhibitors</td>
<td>Ampicillin clavulanate</td>
</tr>
<tr>
<td>First generation cephalosporins</td>
<td>Cefadroxil</td>
</tr>
<tr>
<td></td>
<td>Cephalexin</td>
</tr>
<tr>
<td></td>
<td>Cefazolin</td>
</tr>
<tr>
<td>Folate antagonist</td>
<td>Trimethoprim</td>
</tr>
<tr>
<td>Lincomycin derivatives</td>
<td>Clindamycin</td>
</tr>
<tr>
<td>Macrolides</td>
<td>Azithromycin</td>
</tr>
<tr>
<td></td>
<td>Erythromycin ethylsuccinate</td>
</tr>
<tr>
<td></td>
<td>Clarithromycin</td>
</tr>
<tr>
<td></td>
<td>Erythromycin lactobionate</td>
</tr>
<tr>
<td></td>
<td>Erythromycin</td>
</tr>
<tr>
<td></td>
<td>Erythromycin stearate</td>
</tr>
<tr>
<td>Miscellaneous antibiotics</td>
<td>Erythromycin-sulfisoxazole</td>
</tr>
<tr>
<td>Natural penicillins</td>
<td>Penicillin G potassium</td>
</tr>
<tr>
<td></td>
<td>Penicillin V potassium</td>
</tr>
<tr>
<td></td>
<td>Penicillin G sodium</td>
</tr>
<tr>
<td>Penicillinase-resistant penicillins</td>
<td>Dicloxacillin</td>
</tr>
<tr>
<td>Quinolones</td>
<td>Ciprofloxacin</td>
</tr>
<tr>
<td></td>
<td>Moxifloxacin</td>
</tr>
<tr>
<td></td>
<td>Levofloxacin</td>
</tr>
<tr>
<td></td>
<td>Ofloxacin</td>
</tr>
<tr>
<td>Second generation cephalosporins</td>
<td>Cefaclor</td>
</tr>
<tr>
<td></td>
<td>Cefuroxime</td>
</tr>
<tr>
<td></td>
<td>Cefprozil</td>
</tr>
<tr>
<td>Sulfonamides</td>
<td>Sulfamethoxazole-trimethoprim</td>
</tr>
<tr>
<td>Tetracyclines</td>
<td>Doxycycline</td>
</tr>
<tr>
<td></td>
<td>Tetracycline</td>
</tr>
<tr>
<td></td>
<td>Minocycline</td>
</tr>
<tr>
<td>Third generation cephalosporins</td>
<td>Cefdinir</td>
</tr>
<tr>
<td></td>
<td>Cefditoren</td>
</tr>
<tr>
<td></td>
<td>Cefixime</td>
</tr>
<tr>
<td></td>
<td>Cefditoren</td>
</tr>
<tr>
<td></td>
<td>Cefpodoxime</td>
</tr>
<tr>
<td></td>
<td>Ceftriaxone</td>
</tr>
</tbody>
</table>

NUMERATOR:
Children with a group A streptococcus test in the 7-day period from 3 days prior through 3 days after the diagnosis of pharyngitis

Numerator Instructions: For performance, the measure will be calculated as the number of patient encounters where diagnosed with pharyngitis, dispensed an antibiotic and received a group A streptococcus
(strep) test for the episode over the total number of encounters in the denominator (patients aged 3 to 18 years with an outpatient or ED visit and an antibiotic ordered on or three days after the visit). A higher score indicates appropriate treatment of children with pharyngitis (e.g., the proportion for whom antibiotics were prescribed with an accompanying step test).

**Numerator Options:**

**Performance Met:**

Group A Strep Test Performed (3210F)

**OR**

**Performance Not Met:**

Group A Strep Test not Performed, reason not otherwise specified (3210F with 8P)

**RATIONALE:**

Group A streptococcal bacterial infections and other infections that cause pharyngitis (which are most often viral) often produce the same signs and symptoms (IDSA 2002). The American Academy of Pediatrics, the Centers for Disease Control and Prevention, and the Infectious Diseases Society of America all recommend a diagnostic test for Strep A to improve diagnostic accuracy and avoid unnecessary antibiotic treatment (Linder et al. 2005).

Estimated economic costs of pediatric streptococcal pharyngitis in the United States range from $224 million to $539 million per year, including indirect costs related to parental work losses. At a higher level, the economic cost of antibiotic resistance vary but have extended as high as $20 billion in excess direct healthcare costs, with additional costs to society for lost productivity as high as $35 billion a year (2008 dollars) (Roberts et al. 2009).

**CLINICAL RECOMMENDATION STATEMENTS:**

Infectious Disease Society of America (2012)

The Infectious Diseases Society of America (IDSA) “recommends swabbing the throat and testing for GAS pharyngitis by rapid antigen detection test (RADT) and/or culture because the clinical features alone do not reliably discriminate between GAS and viral pharyngitis except when overt viral features like rhinorrhea, cough, oral ulcers, and/or hoarseness are present”

**COPYRIGHT:**

The measures and specifications were developed by and are owned by the National Committee for Quality Assurance (“NCQA”). NCQA holds a copyright in the measures and specifications and may rescind or alter these measures and specifications at any time. Users of the measures and specifications shall not have the right to alter, enhance or otherwise modify the measures and specifications, and shall not disassemble, recompile or reverse engineer the measures and specifications. Anyone desiring to use or reproduce the materials without modification for a non-commercial purpose may do so without obtaining any approval from NCQA. All commercial uses or requests for alteration of the measures and specifications must be approved by NCQA and are subject to a license at the discretion of NCQA.

The measures and specifications are not clinical guidelines, do not establish a standard of medical care and have not been tested for all potential applications. The measures and specifications are provided “as is” without warranty of any kind. NCQA makes no representations, warranties or endorsements about the quality of any product, test or protocol identified as numerator compliant or otherwise identified as meeting the requirements of a measure or specification. NCQA also makes no representations, warranties or endorsements about the quality of any organization or clinician who uses or reports performance measures. NCQA has no liability to anyone who relies on measures and specifications or data reflective of performance under such measures and specifications. ©2004-2017 National Committee for Quality Assurance, all rights reserved.

Performance measures developed by NCQA for CMS may look different from the measures solely created and owned by NCQA.
Limited proprietary coding is contained in the measure specifications for convenience. Users of the proprietary code sets should obtain all necessary licenses from the owners of these code sets. NCQA disclaims all liability for use or accuracy of any coding contained in the specifications.

The American Medical Association holds a copyright to the CPT® codes contained in the measures specifications.
2018 Registry Flow for Quality ID #66: Appropriate Testing for Children with Pharyngitis

**Start**

**Denominator**
- Patients Aged 3 Years to 18 Years on Date of Encounter
  - Yes
  - Diagnosed for Pharyngitis as Listed in Denominator
    - Yes
    - Group A Streptococcal Test Performed
      - Yes
      - Data Completeness Met = Performance Met 32105-99 or Equivalent (50 Episodes)
      - No
      - Data Completeness Met = Performance Met 32104-99 or Equivalent (20 Episodes)
    - No
    - Encounter as Listed in Denominator (1/1/2018 thru 12/31/2018)
      - Yes
      - Include in Eligible Population/Denominator (60 Episodes)
      - No
      - Diagnosed for Pharyngitis as Listed in Denominator
        - Yes
        - Data Completeness Met = Performance Met 32106-99 or Equivalent (50 Episodes)
        - No
        - Data Completeness Met = Performance Met 32105-99 or Equivalent (50 Episodes)
      - No
      - Include in Eligible Population/Denominator (60 Episodes)
  - No
  - Not Included in Eligible Population/Denominator

**Numerator**
- Group A Streptococcal Test Performed
  - Yes
  - Data Completeness Met = Performance Met 32105-99 or Equivalent (50 Episodes)
  - No
  - Data Completeness Met = Performance Met 32104-99 or Equivalent (20 Episodes)

**Denominator Exclusions**
- Patients Who Used Inpatient Services Any Time During the Measurement Period 03/02 on Equivalents
  - Yes
  - Children Who Are Taking Antibiotics in the 31 Days Prior to the Diagnosis of Pharyngitis 99673 or Equivalent
    - Yes
    - Include in Eligible Population/Denominator (60 Episodes)
    - No
    - Not Included in Eligible Population/Denominator
  - No

**SAMPLE CALCULATIONS:**

Data Completeness:
- Performance Met (N=50 episodes) = Performance Not Met (N=50 episodes) = 70 episodes = 87.56%
- Eligible Population / Denominator (n=60 episodes) = 50 episodes

Performance Rate:
- Performance Met (N=50 episodes) = 50 episodes = 71.43%
- Data Completeness Numerator (N=70 episodes) = 70 episodes

* See the posted Measure Specification for specific coding and instructions to submit this measure.

NOTE: Submission Frequency: Episode

CPT only copyright 2017 American Medical Association. All rights reserved.

CPT only copyright 2017 American Medical Association. All rights reserved.
2018 Registry Flow For Quality ID
#66: Appropriate Testing for Children with Pharyngitis

Please refer to the specific section of the specification to identify the denominator and numerator information for use in submitting this Individual Specification. This flow is for registry data submission.

1. Start with Denominator

2. Check Patient Age:
   a. If Patients Aged 3 to 18 Years on Date of Encounter equals No during the measurement period, do not include in Eligible Patient Population. Stop Processing.
   b. If Patients Aged 3 to 18 Years on Date of Encounter equals Yes during the measurement period, proceed to Check Patient Diagnosis.

3. Check Patient Diagnosis:
   a. If Diagnosis of Pharyngitis as Listed in the Denominator equals No, do not include in Eligible Patient Population. Stop Processing.
   b. If Diagnosis of Pharyngitis as Listed in the Denominator equals Yes, proceed to Check Encounter Performed.

4. Check Encounter Performed:
   a. If Encounter as Listed in the Denominator equals No, do not include in Eligible Patient Population. Stop Processing.
   b. If Encounter as Listed in the Denominator equals Yes, include in the Eligible Population.

5. Check Antibiotic Prescribed or Dispensed:
   a. If Antibiotic Prescribed or Dispensed equals No, do not include in Eligible Patient Population. Stop Processing.
   b. If Antibiotic Prescribed or Dispensed equals Yes, proceed to Check Patients Who Use Hospice Services Any Time During the Measurement Period.

6. Check Patients Who Use Hospice Services Any Time During the Measurement Period:
   a. If Patients Who Use Hospice Services Any Time During the Measurement Period equals No, proceed to check Children Who Are Taking Antibiotics in the 30 Days Prior to the Diagnosis of Pharyngitis.
   b. If Patients Who Use Hospice Services Any Time During the Measurement Period equals Yes, do not include in Eligible Patient Population. Stop Processing.

7. Check Children Who Are Taking Antibiotics in the 30 Days Prior to the Diagnosis of Pharyngitis:
   a. If Children Who Are Taking Antibiotics in the 30 Days Prior to the Diagnosis of Pharyngitis equals No, include in the Eligible Population.
   b. If Patients Who Use Hospice Services Any Time During the Measurement Period equals Yes, do not include in Eligible Patient Population. Stop Processing.
8. Denominator Population:
   a. Denominator population is all Eligible Patients in the denominator. Denominator is represented as Denominator in the Sample Calculation listed at the end of this document. Letter d equals 80 episodes in the Sample Calculation.

9. Start Numerator

10. Check Group A Streptococcus Test Performed:
   a. If Group A Streptococcus Test Performed equals Yes, include in Data Completeness Met and Performance Met.
   b. Data Completeness Met and Performance Met letter is represented as Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter a equals 50 episodes in the Sample Calculation.
   c. If Group A Streptococcus Test Performed equals No, proceed to Group A Streptococcus Test Not Performed, Reason Not Specified.

11. Check Group A Streptococcus Test Not Performed, Reason Not Otherwise Specified:
   a. If Group A Streptococcus Test Not Performed, Reason Not Otherwise Specified equals Yes, include in Data Completeness Met and Performance Not Met.
   b. Data Completeness Met and Performance Not Met letter is represented as Data Completeness in the Sample Calculation listed at the end of this document. Letter c equals 20 episodes in the Sample Calculation.
   c. If Group A Streptococcus Test Not Performed, Reason Not Otherwise Specified equals No, proceed to Data Completeness Not Met.

12. Check Data Completeness Not Met:
   a. If Data Completeness Not Met, the Quality Data Code or equivalent was not submitted. 10 episodes have been subtracted from the Data Completeness Numerator in the Sample Calculation.

   **SAMPLE CALCULATIONS:**
   
   \[
   \text{Data Completeness} = \frac{\text{Performance Met (a=50 episodes)}}{\text{Eligible Population / Denominator (d=80 episodes)}} = \frac{70 \text{ episodes}}{80 \text{ episodes}} = 87.50\%
   \]
   
   \[
   \text{Performance Rate} = \frac{\text{Performance Met (a=50 episodes) / Data Completeness Numerator (70 episodes)}}{50 \text{ episodes}} = \frac{71.43\%}{70 \text{ episodes}}
   \]