Quality ID #66: Appropriate Testing for Pharyngitis
– National Quality Strategy Domain: Efficiency and Cost Reduction
– Meaningful Measure Area: Appropriate Use of Healthcare

2021 COLLECTION TYPE:
MIPS CLINICAL QUALITY MEASURES (CQMS)

MEASURE TYPE:
Process – High Priority

DESCRIPTION:
The percentage of episodes for patients 3 years and older with a diagnosis of pharyngitis that resulted in an antibiotic dispensing event and a group A streptococcus (strep) test

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 Merit-based Incentive Payment System (MIPS) eligible clinicians who perform the quality actions described in the measure based on the services provided and the measure-specific denominator coding.

NOTE: Patient encounters for this measure conducted via telehealth (e.g., encounters coded with GQ, GT, 95, or POS 02 modifiers) are allowable.

Measure Submission Type:
Measure data may be submitted by individual MIPS eligible clinicians, groups, or third party intermediaries. The listed denominator criteria are used to identify the intended patient population. The numerator options included in this specification are used to submit the quality actions as allowed by the measure. The quality-data codes listed do not need to be submitted by MIPS eligible clinicians, groups, or third party intermediaries that utilize this modality for submissions; however, these codes may be submitted for those third party intermediaries that utilize Medicare Part B claims data. For more information regarding Application Programming Interface (API), please refer to the Quality Payment Program (QPP) website.

DENOMINATOR:
Outpatient, telephone, online assessment, observation, or emergency department (ED) visits with a diagnosis of pharyngitis and an antibiotic dispensing event among patients 3 years or older.

Denominator Instruction:
This is an episode of care measure that examines all eligible episodes for the patient during the measurement period. If a patient has more than one eligible episode in a 31-day period, include only the first eligible episode.

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 MIPS CQMs.

Denominator Criteria (Eligible Cases):
Patients 3 years of age or older 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): 98966, 98967, 98968, 99202, 99203,
AND
Prescribed or dispensed antibiotic (Table 1): G8711

AND NOT
DENOMINATOR EXCLUSIONS:
Episodes where the patient is taking antibiotics (Table 1) in the 30 days prior to the episode date:
G9703

OR
Episodes where the patient had a competing comorbid condition during the 12 months prior to or on the episode date (e.g., tuberculosis, neutropenia, cystic fibrosis, chronic bronchitis, pulmonary edema, respiratory failure, rheumatoid lung disease): G2175

OR
Episodes where the patient had a competing diagnosis within three days after the episode date (e.g., intestinal infection, pertussis, bacterial infection, Lyme disease, otitis media, acute sinusitis, chronic sinusitis, infection of the adenoids, prostatitis, cellulitis, mastoiditis, or bone infections, acute lymphadenitis, impetigo, skin staph infections, pneumonia/gonococcal infections, venereal disease (syphilis, chlamydia, inflammatory diseases [female reproductive organs]), infections of the kidney, cystitis or UTI): G2097

OR
Patients who use hospice services any time during the measurement period: G9702

Table 1 - Antibiotic Medications
Note: This list should be used when assessing antibiotic prescriptions for the denominator and denominator exclusion components.

<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>• Amoxicillin-clavulanate</td>
</tr>
<tr>
<td>First generation cephalosporins</td>
<td>• Cefadroxil</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>• Clarithromycin</td>
</tr>
<tr>
<td></td>
<td>• Erythromycin</td>
</tr>
<tr>
<td>Natural penicillins</td>
<td>• Penicillin G potassium</td>
</tr>
<tr>
<td></td>
<td>• Penicillin G sodium</td>
</tr>
<tr>
<td></td>
<td>• Penicillin V potassium</td>
</tr>
<tr>
<td></td>
<td>• Pencillin G benzathine</td>
</tr>
<tr>
<td>Penicillinase-resistant penicillins</td>
<td>• Dicloxacillin</td>
</tr>
<tr>
<td>Quinolones</td>
<td>• Ciprofloxacin</td>
</tr>
<tr>
<td></td>
<td>• Levofloxacin</td>
</tr>
<tr>
<td></td>
<td>• Moxifloxacin</td>
</tr>
<tr>
<td></td>
<td>• Ofloxacin</td>
</tr>
<tr>
<td>Second generation cephalosporins</td>
<td>• Cefaclor</td>
</tr>
<tr>
<td></td>
<td>• Cefprozil</td>
</tr>
<tr>
<td></td>
<td>• Cefuroxime</td>
</tr>
<tr>
<td>Sulfonamides</td>
<td>• Sulfamethoxazole-trimethoprim</td>
</tr>
</tbody>
</table>
### Description

<table>
<thead>
<tr>
<th>Prescription</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Prescription</strong></td>
</tr>
<tr>
<td><strong>Tetracyclines</strong></td>
</tr>
<tr>
<td>• Doxycycline</td>
</tr>
<tr>
<td>• Minocycline</td>
</tr>
<tr>
<td><strong>Tetracycline</strong></td>
</tr>
<tr>
<td><strong>Third generation cephalosporins</strong></td>
</tr>
<tr>
<td>• Cefdinir</td>
</tr>
<tr>
<td>• Cefixime</td>
</tr>
<tr>
<td>• Cefpodoxime</td>
</tr>
<tr>
<td><strong>Ceftibuten</strong></td>
</tr>
<tr>
<td><strong>Cefditoren</strong></td>
</tr>
<tr>
<td><strong>Ceftriaxone</strong></td>
</tr>
</tbody>
</table>

### Numerator:

A group A streptococcus test in the seven-day period from three days prior to the episode date through three days after the episode date.

**Numerator Instruction:**
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)
- **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 (Shulman et al., 2012). 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) (Pfoh et al. 2008).

### 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”

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2021 Clinical Quality Measure Flow for Quality ID #66: Appropriate Testing for Pharyngitis

Disclaimer: Refer to the measure specification for specific coding and instructions to submit this measure.

SAMPLE CALCULATIONS

Data Completeness\(^a\)

\[
\frac{\text{Performance Met (a=50 episodes)} + \text{Performance Not Met (c=20 episodes)}}{\text{Eligible Population / Denominator (d=80 episodes)}} = \frac{70}{80} = 87.50\%
\]

Performance Rate\(^a\)

\[
\frac{\text{Performance Met (a=50 episodes)}}{\text{Data Completeness Numerator (70 episodes)}} = \frac{50}{70} = 71.43\%
\]

\(^a\) See the posted measure specification for specific coding and instructions to submit this measure.

NOTE: Submission Frequency: Episode

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2021 Clinical Quality Measure Flow Narrative for Quality ID #66:
Appropriate Testing for Pharyngitis

Disclaimer: Refer to the measure specification for specific coding and instructions to submit this measure.

1. Start with Denominator

2. Check Patients 3 years of age or older on date of encounter:
   a. If Patients 3 years of age or older on date of encounter equals No, do not include in Eligible Population/Denominator. Stop processing.
   b. If Patients 3 years of age or older on date of encounter equals Yes, proceed to Diagnosis for pharyngitis as listed in Denominator*.

3. Check Diagnosis for pharyngitis as listed in Denominator*:
   a. If Diagnosis for pharyngitis as listed in Denominator* equals No, do not include in Eligible Population/Denominator. Stop processing.
   b. If Diagnosis for pharyngitis as listed in Denominator* equals Yes, proceed to Patient encounter during the performance period as listed in Denominator*.

4. Check Patient encounter during the performance period as listed in Denominator*:
   a. If Patient encounter during the performance period as listed in Denominator*equals No, do not include in Eligible Population/Denominator. Stop processing.
   b. If Patient encounter during the performance period as listed in Denominator* equals Yes, proceed to Prescribed or dispensed antibiotic.

5. Check Prescribed or dispensed antibiotic:
   a. If Prescribed or dispensed antibiotic equals No, do not include in Eligible Population/Denominator. Stop processing.
   b. If Prescribed or dispensed antibiotic equals Yes, proceed to Episodes where the patient is taking antibiotics in the 30 days prior to episode.

6. Check Episodes where the patient is taking antibiotics in the 30 days prior to episode:
   a. If Episodes where the patient is taking antibiotics in the 30 days prior to episode equals Yes, do not include in Eligible Population/Denominator. Stop processing.
   b. If Episodes where the patient is taking antibiotics in the 30 days prior to episode equals No, proceed to Episodes where the patient had a competing comorbid condition during the 12 months prior to or on episode date.

7. Check Episodes where the patient had a competing comorbid condition during the 12 months prior to or on episode date:
   a. If Episodes where the patient had a competing comorbid condition during the 12 months prior to or on episode date equals Yes, do not include in Eligible Population/Denominator. Stop processing.
episode date equals Yes, do not include in Eligible Population/Denominator. Stop processing.

b. If Episodes where the patient had a competing comorbid condition during the 12 months prior to or on episode date equals No, proceed to Episodes where the patient had a competing diagnosis within three days after the episode date.

8. Check Episodes where the patient had a competing diagnosis within three days after the episode date.

a. If Episodes where the patient had a competing diagnosis within three days after the episode date equals Yes, do not include in Eligible Population/Denominator. Stop processing.

b. If Episodes where the patient had a competing diagnosis within three days after the episode date equals No proceed to Patients who use hospice services any time during the measurement period.

9. 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 Yes, do not include in Eligible Population/Denominator. Stop processing.

b. If Patients who use hospice services any time during the measurement period equals No, include in Eligible Population/Denominator.

10. Denominator Population:

   • Denominator Population is all Eligible Episodes 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.

11. Start Numerator

12. Check Group A Streptococcus Test Performed:

   a. If Group A Streptococcus Test Performed equals Yes, include in Data Completeness Met and Performance Met.

      • 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.

   b. If Group A Streptococcus Test not Performed, reason not otherwise specified.

13. Check Group A Strept Test not Performed, reason not otherwise specified:

   a. If Group A Strept Test not Performed, reason not otherwise specified equals Yes, include in Data Completeness Met and Performance Not Met.

      • 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.

   b. If Group A Strept Test not Performed, reason not otherwise specified equals No, proceed to Data
14. **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:**

Data Completeness equals Performance Met (a equals 50 episodes) plus Performance Not Met (c equals 20 episodes) divided by Eligible Population/Denominator (d equals 80 episodes). All equals 70 patients divided by 80 patients. All equals 87.50 percent.

Performance Rate equals Performance Met (a equals 50 episodes) divided by Data Completeness Numerator (70 episodes). All equals 50 episodes divided by 70 episodes. All equals 71.43 percent.

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

**NOTE:** Submission Frequency: Episode

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