Quality ID #116 (NQF 0058): Avoidance of Antibiotic Treatment for Acute Bronchitis/Bronchiolitis – 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 ages 3 months and older with a diagnosis of acute bronchitis/bronchiolitis that did not result in an antibiotic dispensing event.

INSTRUCTIONS:
This measure is to be submitted at **each occurrence** of acute bronchitis/bronchiolitis during the performance period. 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:
All patients aged 3 months or older with an outpatient visit, telephone visit, online assessment, observation visit or emergency department (ED) visit with a diagnosis of acute bronchitis/bronchiolitis during the measurement period

> *DENOMINATOR NOTE:*
> *Do not include outpatient, ED or observation visits that result in an inpatient admission. When an outpatient, ED or observation visit and an inpatient stay are billed on separate claims, the visit results in an inpatient stay when the outpatient/ED/observation date of service occurs on the day prior to the admission date or any time during the admission (admission date through discharge date). An outpatient, ED or observation visit billed on the same claim as an inpatient stay is considered a visit that resulted in an inpatient stay.*
>
> **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 months of age and older on date of encounter
> **AND**
> **Diagnosis for acute bronchitis/bronchiolitis (ICD-10-CM):** J20.3, J20.4, J20.5, J20.6, J20.7, J20.8, J20.9, J21.0, J21.1, J21.8, J21.9
> **AND**
> **Patient encounter during the performance period (CPT or HCPCS):** 98966, 98967, 98968, 98969, 99202,

99203, 99204, 99205, 99211, 99212, 99213, 99214, 99215, 99217, 99218, 99219, 99220, 99241*, 99242*, 99243*, 99244*, 99245*, 99281, 99282, 99283, 99284, 99285, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350, 99381*, 99382*, 99383*, 99384*, 99385*, 99386*, 99387*, 99391*, 99392*, 99393*, 99394*, 99395*, 99396*, 99397*, 99401*, 99402*, 99403*, 99404*, 99411*, 99412*, 99429*, 99441, 99442, 99443, 99444, 99455, 99456, 99483, G0402, G0438, G0439, G0463*, T1015*

AND NOT
DENOMINATOR EXCLUSIONS:
Outpatient, ED or Observation visits that result in an
inpatient admission G2176
OR
Acute bronchitis/bronchiolitis episodes when the patient had a new or refill prescription of antibiotics (Table 1) in the 30 days prior to or on the episode date. G2177
OR
Documentation of medical reason(s) for prescribing or dispensing antibiotic (e.g., intestinal infection, pertussis, bacterial infection, Lyme disease, otitis media, acute sinusitis, acute pharyngitis, acute tonsillitis, chronic sinusitis, infection of the pharynx/larynx/tonsils/adenoids, prostatitis, cellulitis/ mastoiditis/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/UTI, acne, HIV disease/asymptomatic HIV, cystic fibrosis, disorders of the immune system, malignancy neoplasms, chronic bronchitis, emphysema, bronchiectasis, extrinsic allergic alveolitis, chronic airway obstruction, chronic obstructive asthma, pneumoconiosis and other lung disease due to external agents, other diseases of the respiratory system, and tuberculosis: G9712
OR
Patients who use hospice services any time during the measurement period: G9713

NUMERATOR:
Patients who were not prescribed or dispensed antibiotics (Table 1) on or within 3 days of the initial date of service

Numerator Instructions:
For performance, the measure will be calculated as the number of patient encounters where antibiotics were neither prescribed nor dispensed on or within 3 days of the episode for acute bronchitis/bronchiolitis over the total number of encounters in the denominator (patients aged 3 months and older with an outpatient, telephone, online assessment, observation or ED visit for acute bronchitis/bronchiolitis). A higher score indicates appropriate treatment of patients with acute bronchitis/bronchiolitis (e.g., the proportion for whom antibiotics were not prescribed or dispensed on or three days after the encounter). Delayed prescriptions (where an antibiotic was prescribed and patient was instructed to delay taking the antibiotic) are considered "Performance Not Met".

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

Description	Prescription	
Aminoglycosides	Amikacin Tobramycin Gentamicin	Streptomycin
Aminopenicillins	Amoxicillin	Ampicillin
Beta-lactamase inhibitors	Amoxicillin-clavulanate Ampicillin- sulbactam	Piperacillin-tazobactam Ticarcillin-clavulanate
First-generation cephalosporins	Cefadroxil Cephalexin	Cefazolin
Fourth-generation cephalosporins	Cefepime	
Ketolides	Telithromycin	
Lincomycin derivatives	Clindamycin Lincomycin	

Description	Prescription	
Macrolides	Azithromycin Clarithromycin Erythromycin stearate	Erythromycin Erythromycin ethylsuccinate Erythromycin lactobionate
Miscellaneous antibiotics	Aztreonam Chloramphenicol Vancomycin Dalfopristin-quinupristin Linezolid	Daptomycin Metronidazole Erythromycin-sulfisoxazole
Natural penicillins	Penicillin G sodium benzathine-procaine Penicillin G potassium Penicillin G procaine	Penicillin G sodium Penicillin V potassium Penicillin G benzathine
Penicillinase resistant penicillins	Dicloxacillin Oxacillin	Nafcillin
Quinolones	Ciprofloxacin Gemifloxacin Ofloxacin	Levofloxacin Moxifloxacin
Rifamycin derivatives	Rifampin	
Second generation cephalosporin	Cefaclor Cefotetan Cefprozil	Cefoxitin Cefuroxime
Sulfonamides	Sulfadiazine	Sulfamethoxazole-trimethoprim
Tetracyclines	Doxycycline Tetracycline	Minocycline
Third generation cephalosporins	Cefdinir Cefditoren Cefpodoxime Cefixim	Cefotaxime Ceftibuten Ceftriaxone Ceftazidime
Urinary anti-infectives	Fosfomycin Nitrofurantoin macrocrystals Trimethoprim	Nitrofurantoin Nitrofurantoin macrocrystals-monohydrate

Numerator Options:
Performance Met: Antibiotic neither prescribed nor dispensed **(4124F)**

OR

Performance Not Met: Antibiotic prescribed or dispensed **(4120F)**

RATIONALE:

Antibiotics are commonly misused and overused for a number of viral respiratory conditions where antibiotic treatment is not clinically indicated. (Scott J.G., D. Cohen, B. Dicicco-Bloom, 2001) About 80 percent of antibiotics prescribed for acute respiratory infections in adults are unnecessary, according to CDC prevention guidelines. In adults, antibiotics are most often (65–80 percent) prescribed for acute bronchitis/bronchiolitis, despite its viral origin. The misuse and overuse of antibiotics contributes to antibiotic drug resistance, which is of public health concern due to the diminished efficacy of antibiotics against bacterial infections, particularly in sick patients and the elderly. (Austin D.J., Kristinsson, R.M. Anderson, 1999, Patterson, JE, 2001, Cohen ML, 1992, Lipsitch M, 2001)

A HEDIS measure that highlights inappropriate antibiotic prescribing in adults for a common respiratory condition will help to raise awareness among clinicians and patients about inappropriate antibiotic use. Antibiotics are most often inappropriately prescribed in adults with acute bronchitis/bronchiolitis. This measure builds on an existing HEDIS measure targeting inappropriate antibiotic prescribing for members with upper respiratory infection (common cold), where antibiotics are also most often inappropriately prescribed. (Chandran R., 2001, Gonzales R., J.F. Steiner, et al, 1999)

CLINICAL RECOMMENDATION STATEMENTS:

Clinical guidelines do not support antibiotic treatment of otherwise healthy adults with acute bronchitis/bronchiolitis due to the viral origin of acute bronchitis/bronchiolitis. Patients with chronic bronchitis, COPD or other chronic comorbidity may be treated with antibiotics and are therefore excluded from the measure denominator. (Gonzales R., D.C. Malone, J.H. Maselli, et al, 2001)

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2021 Clinical Quality Measure Flow for Quality ID #116 (NQF 0058): Avoidance of Antibiotic Treatment for Acute Bronchitis/Bronchiolitis

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

Denominator

Start

Patients 3 months of age and older on date of encounter — No → Not included in Eligible Population/Denominator

Yes ↓

Diagnosis of acute bronchitis/bronchiolitis as listed in Denominator* — No → Not included in Eligible Population/Denominator

Yes ↓

Patient encounter during the performance period as listed in Denominator* — No →

Yes ↓

Denominator Exclusions

Outpatient, ED, or Observation visits that result in an inpatient admission: G2176 or equivalent — Yes →

No ↓

Acute bronchitis/bronchiolitis episodes when the patient had a new or refill prescription of antibiotics in the 30 days prior to or on the episode date: G2177 or equivalent — Yes / No

Numerator

Documentation of medical reason(s) for prescribing or dispensing antibiotic: G9712 or equivalent — Yes → Not included in Eligible Population/Denominator

No ↓

Patients who use hospice services any time during the measurement period: G9713 or equivalent — Yes → Not included in Eligible Population/Denominator

No ↓

Include in Eligible Population/Denominator (80 episodes) ᵈ

↓

Antibiotic neither prescribed nor dispensed — Yes → **Data Completeness Met + Performance Met** 4124F or equivalent (40 episodes) ᵃ

No ↓

Antibiotic prescribed or dispensed — Yes → **Data Completeness Met + Performance Not Met** 4120F or equivalent (30 episodes) ᶜ

No ↓

Data Completeness Not Met Quality Data Code or equivalent was not submitted (10 episodes)

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

NOTE: Submission Frequency: Episode

2021 Clinical Quality Measure Flow Narrative for Quality ID #116 (NQF 0058):
Avoidance of Antibiotic Treatment for Acute Bronchitis/Bronchiolitis

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

1. Start with Denominator

2. Check *Patients 3 months of age and older on date of encounter*:

   a. If *Patients 3 months of age and older on date of encounter* equals No, do not include in *Eligible Population/Denominator*. Stop processing.

   b. If *Patients 3 months of age and older on date of encounter* equals Yes, proceed to *Diagnosis of acute bronchitis/bronchiolitis as listed in Denominator**.

3. Check *Diagnosis of acute bronchitis/bronchiolitis as listed in Denominator**:

   a. If *Diagnosis of acute bronchitis/bronchiolitis as listed in Denominator** equals No, do not include in *Eligible Population/Denominator*. Stop processing.

   b. If *Diagnosis of acute bronchitis/bronchiolitis as listed in Denominator** equals Yes, proceed to *Patient encounter during the performance period as listed in Denominator**.

4. Check *Patient encounter doing 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 doing the performance period as listed in Denominator** equals Yes, proceed to *Outpatient, ED, or Observation visits that result in an inpatient admission*.

5. Check *Outpatient, ED, or Observation visits that result in an inpatient admission*:

   a. If *Outpatient, ED, or Observation visits that result in an inpatient admission* equals No, proceed to *Acute bronchitis//bronchiolitis episodes when the patient had a new or refill prescription of antibiotics in the 30 days prior to or on the episode date*.

   b. If *Outpatient, ED, or Observation visits that result in an inpatient admission* equals Yes, do not include in *Eligible Population/Denominator*. Stop processing.

6. Check *Acute bronchitis//bronchiolitis episodes when the patient had a new or refill prescription of antibiotics in the 30 days prior to or on the episode date*:

   a. If *Acute bronchitis//bronchiolitis episodes when the patient had a new or refill prescription of antibiotics in the 30 days prior to or on the episode date* equals No, proceed to *Documentation of medical reason(s) for prescribing or dispensing antibiotic*.

   b. If *Acute bronchitis//bronchiolitis episodes when the patient had a new or refill prescription of antibiotics in the 30 days prior to or on the episode date* equals Yes, do not include in *Eligible Population/Denominator*. Stop processing.

7. Check *Documentation of medical reason(s) for prescribing or dispensing antibiotic*:

   a. If *Documentation of medical reason(s) for prescribing or dispensing antibiotic* equals No, proceed to *Patients who use hospice services any time during the measurement period*.

   b. If *Documentation of medical reason(s) for prescribing or dispensing antibiotic* equals Yes, do not include in *Eligible Population/Denominator*. Stop processing.

8. 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, include in *Eligible Population/Denominator.*

   b. If *Patients who use hospice services any time during the measurement period* equals Yes, do not include in *Eligible Population/Denominator*. Stop processing.

9. Denominator Population:

   a. 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.

10. Start Numerator

11. Check *Antibiotic neither prescribed nor dispensed*:

   a. If *Antibiotic neither prescribed nor dispensed* 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 40 episodes in the Sample Calculation.

   b. If *Antibiotic neither prescribed nor dispensed* equals No, proceed to *Antibiotic prescribed or dispensed*.

12. Check *Antibiotic prescribed or dispensed*:

   a. If *Antibiotic prescribed or dispensed* equals Yes, include in the *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 30 episodes in the Sample Calculation.

   b. If *Antibiotic prescribed or dispensed* equals No, proceed to *Data Completeness Not Met.*

13. 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 40 episodes) plus Performance Not Met (c equals 30 episodes) divided by Eligible Population / Denominator (d equals 80 episodes). All equals 70 episodes divided by 80 episodes. All equals 87.50 percent.

Performance Rate equals Performance Met (a equals 40 episodes) divided by Data Completeness Numerator (70 episodes). All equals 40 episodes divided by 70 episodes. All equals 57.14 percent.

*See the posted measure specification for specific coding and instructions to submit this measure.
NOTE: Submission Frequency: Episode

The measure diagrams were developed by CMS as a supplemental resource to be used in conjunction with the measure specifications. They should not be used alone or as a substitution for the measure specification.