Quality ID #93 (NQF 0654): Acute Otitis Externa (AOE): Systemic Antimicrobial Therapy – Avoidance of Inappropriate Use  
– National Quality Strategy Domain: Efficiency and Cost Reduction  
– Meaningful Measure Area: Appropriate Use of Healthcare

**2022 COLLECTION TYPE:**  
MIPS CLINICAL QUALITY MEASURES (CQMS)

**MEASURE TYPE:**  
Process – High Priority

**DESCRIPTION:**  
Percentage of patients aged 2 years and older with a diagnosis of AOE who were not prescribed systemic antimicrobial therapy

**INSTRUCTIONS:**  
This measure may be submitted based on the actions of the submitting Merit-based Incentive Payment System (MIPS) eligible clinician who performs the quality action, described in the measure, based on services provided within measure-specific denominator coding. This measure is to be submitted once for each occurrence of AOE during the performance period. For the purpose of submitting this measure, only unique occurrences with an onset of AOE diagnosing within the current performance period will be submitted. A unique occurrence of AOE is defined as the period of time that begins with the onset of AOE diagnosing and ends 30 days after the onset of diagnosing.

Merit-based Incentive Payment System (MIPS) eligible clinicians who submitted this measure may also find Quality ID #91: Acute Otitis Externa: Topical Therapy to be clinically relevant. The measure developer intended for Quality ID #91: Acute Otitis Externa: Topical Therapy and Quality ID #93: Acute Otitis Externa: Systemic Antimicrobial Therapy – Avoidance of Inappropriate Use to be paired measures, as they can both be implemented to measure care provided to patients diagnosed with diffuse, uncomplicated AOE.

**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 2 years and older with a diagnosis of AOE

**DENOMINATOR NOTE:** A new diagnosis code indicates a new occurrence of AOE. If a patient presents with right ear AOE then returns with new onset of left ear AOE symptoms, then the left ear AOE would be considered a new unique occurrence, separate from the right ear AOE.

**Denominator Criteria (Eligible Cases):**  
Patients aged ≥ 2 years on date of encounter  
**AND**  
**Diagnosis for AOE (ICD-10-CM):** H60.311, H60.312, H60.313, H60.319, H60.321, H60.322, H60.323, H60.329, H60.331, H60.332, H60.333, H60.339, H60.391, H60.392, H60.393, H60.399, H60.501, H60.502, H60.503, H60.509, H60.511, H60.512, H60.513, H60.519, H60.521, H60.522, H60.523,
H60.529, H60.531, H60.532, H60.533, H60.539, H60.541, H60.542, H60.543, H60.549, H60.551,
H60.552, H60.553, H60.559, H60.591, H60.592, H60.593, H60.599, H62.40, H62.41, H62.42, H62.43
AND
Patient encounter during the performance period (CPT): 99202, 99203, 99204, 99205, 99212,
99213, 99214, 99215, 99281, 99282, 99283, 99284, 99285, 99304, 99305, 99306, 99307, 99308, 99309,
99310, 99324, 99325, 99326, 99327, 99328, 99334, 99335, 99336, 99341, 99342, 99343, 99344, 99345,
99347, 99348, 99349, 99350

NUMERATOR:
Patients who were not prescribed systemic antimicrobial therapy

Numerator Instructions:
For performance, the measure will be calculated as the number of patients for whom systemic
antimicrobial therapy was not prescribed over the number of patients in the denominator (patients aged 2
years and older with acute otitis externa). A higher score indicates appropriate treatment of patients with
AOE (e.g., the proportion for whom systemic antimicrobials were not prescribed).

NUMERATOR NOTE: Denominator Exception is determined on the date of the denominator eligible
episode.

Numerator Options:
Performance Met: Systemic antimicrobial therapy not prescribed (4132F)
OR
Denominator Exception: Documentation of medical reason(s) for prescribing
systemic antimicrobial therapy (4131F with 1P)
OR
Performance Not Met: Systemic antimicrobial therapy prescribed (4131F)

RATIONALE:
Despite their limited utility, about 20-40 percent of patients with AOE receive oral antibiotics, often in addition to
topical therapy. "There are no data on the efficacy of systemic therapy using appropriate antibacterials and stratified
by severity of the infection. Moreover, orally administered antibiotics have significant adverse effects that include
rashes, vomiting, diarrhea, allergic reactions, altered nasopharyngeal flora, and development of bacterial resistance."1
The use of systemic antimicrobial therapy to treat AOE should be limited only to those clinical situations in which it is
indicated.


CLINICAL RECOMMENDATION STATEMENTS:
Clinicians should not prescribe systemic antimicrobials as initial therapy for diffuse, uncomplicated AOE unless there
is extension outside the ear canal or the presence of specific host factors that would indicate a need for systemic
therapy.

Strong recommendation based on randomized controlled trials with minor limitations and a preponderance of benefit
over harm. [Aggregate evidence quality – Grade B] (AAO-HNSF, 2014)

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The PCPI’s and AMA’s significant past efforts and contributions to the development and updating of the Measures are acknowledged.

AAO-HNS Foundation is solely responsible for the review and enhancement (“Maintenance”) of the Measure as of August 14, 2014.

AAO-HNS Foundation encourages use of the Measure by other health care professionals, where appropriate.

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2022 Clinical Quality Measure Flow for Quality ID #93 (NQF 0654): Acute Otitis Externa (AOE): Systemic Antimicrobial Therapy – Avoidance of Inappropriate Use

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

DATA COMPLETENESS = Performance Met (a=40 episodes) + Denominator Exception (b=10 episodes) + Performance Not Met (c=20 episodes) / Eligible Population / Denominator (d=80 episodes)

PERFORMANCE RATE = Performance Met (a=40 episodes) / Eligible Population / Denominator (d=80 episodes)

SAMPLE CALCULATIONS

Data Completeness = 70 episodes = 87.50%

Performance Rate = 40 episodes = 66.67%

Denominator

Start

Patients aged ≥ 2 years on date of encounter

Data Completeness Met + Performance Met 4132F or equivalent (40 episodes) a

Numerator

Diagnosis for AOE as listed in Denominator*

Systemic antimicrobial therapy not prescribed

Data Completeness Met + Denominator Exception 4131F with 1P or equivalent (10 episodes) b

Include in Eligible Population/Denominator (80 episodes)

Data Completeness Met + Performance Not Met 4131F or equivalent (20 episodes) c

Patient encounter during the performance period as listed in Denominator*

Systemic antimicrobial therapy prescribed

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

Not included in Eligible Population/Denominator

Yes

Yes

Yes

Yes

No

No

No

No

Yes

Yes

Yes

Yes

Yes

Yes

No

No

No

No

Systemic antimicrobial therapy not prescribed

Documented medical reason(s) for prescribing systemic antimicrobial therapy

Systemic antimicrobial therapy prescribed

Diagnosis for AOE as listed in Denominator*

Patients aged ≥ 2 years on date of encounter

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

NOTE: Submission Frequency: Episode

*See the posted measure specification for specific coding and instructions to submit this measure.
2022 Clinical Quality Measure Flow Narrative for Quality ID #93 (NQF 0654): Acute Otitis Externa (AOE): Systemic Antimicrobial Therapy – Avoidance of Inappropriate Use

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

1. Start with Denominator

2. Check Patients aged greater than or equal to 2 years on date of encounter:
   a. If Patients aged greater than or equal to 2 years on date of encounter equals No, do not include in Eligible Population/Denominator. Stop processing.
   b. If Patients aged greater than or equal to 2 years on date of encounter equals Yes, proceed to check Diagnosis for AOE as listed in Denominator*.

3. Check Diagnosis for AOE as listed in Denominator*:
   a. If Diagnosis for AOE as listed in Denominator* equals No, do not include in Eligible Population/Denominator. Stop processing.
   b. If Diagnosis for AOE as listed in Denominator* equals Yes, proceed to check 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, include in Eligible Population/Denominator.

5. 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.

6. Start Numerator

7. Check Systemic antimicrobial therapy not prescribed:
   a. If Systemic antimicrobial therapy not prescribed equals Yes, include in Data Completeness Met and Performance Met.
      • *Data Completeness Met and Performance Met* letter is represented in the 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 Systemic antimicrobial therapy not prescribed equals No, proceed to check Documentation of medical reason(s) for prescribing systemic antimicrobial therapy.

8. Check Documentation of medical reason(s) for prescribing systemic antimicrobial therapy:
   a. If Documentation of medical reason(s) for prescribing systemic antimicrobial therapy equals Yes, include in Data Completeness Met and Denominator Exception.
• Data Completeness Met and Denominator Exception letter is represented in the Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter b equals 10 episodes in the Sample Calculation.

b. If Documentation of medical reason(s) for prescribing systemic antimicrobial therapy equals No, proceed to check Systemic antimicrobial therapy prescribed.

9. Check Systemic antimicrobial therapy prescribed:

a. If Systemic antimicrobial therapy prescribed equals Yes, include in the Data Completeness Met and Performance Not Met.

  • Data Completeness Met and Performance Not Met letter is represented in the Data Completeness in the Sample Calculation listed at the end of this document. Letter c equals 20 episodes in the Sample Calculation.

b. If Systemic antimicrobial therapy prescribed equals No, proceed to check Data Completeness Not Met.

10. Check Data Completeness Not Met:

  • If Data Completeness Not Met, the Quality Data Code 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 Denominator Exception (b equals 10 episodes) plus Performance Not Met (c equals 20 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) minus Denominator Exception (b equals 10 episodes). All equals 40 episodes divided by 60 episodes. All equals 66.67 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.