

# Judicious Use of Antibiotics

## Measures

### Track 2: Acute Otitis Media

**Directions:**

**Pull 10 or more charts of patients diagnosed with Acute Otitis Media (AOM);**

**1) Over 6 months of age**

**2) Exclude patients with the following:**

- tympanostomy (myringotomy) tubes;
- major congenital conditions;
- immunocompromised status

Aim	Data Collection Question	Measure	Goal
100% of patients with <u>otalgia</u> will have pain treatment recommended	<p>1. If <u>otalgia</u> was present, was pain treatment recommended?</p> <p><input type="radio"/> Yes</p> <p><input type="radio"/> No</p> <p><input type="radio"/> N/A, <u>otalgia</u> not present, or only mild pain</p>	<p><b>Name:</b> Pain treatment recommended for <u>otalgia</u></p> <p><b>Definition:</b> Percentage of patients for whom pain treatment was recommended for <u>otalgia</u></p> <p><b>Source:</b> Question #1</p> <p><b>Numerator:</b> Yes selected in Question #1</p> <p><b>Denominator:</b> Total Number of Charts <u>Minus N/A</u>, <u>otalgia</u> not present, or only mild pain selected in Question #1</p>	100%

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Aim	Data Collection Question	Measure	Goal
<p>100% of patients diagnosed with AOM will have two or more of the following AOM criteria present upon examination:</p> <ul style="list-style-type: none"> <li>bulging of the tympanic membrane</li> <li>erythema</li> <li>recent (&lt;48 hrs) onset of ear pain (<a href="#">otalgia</a>)</li> <li>intense erythema</li> <li>new onset of otorrhea not due to acute otitis externa</li> </ul>	<p>2. Were at least two of the following criteria for diagnosing AOM present upon the examination?</p> <p><input type="radio"/> Yes  <input type="radio"/> No</p> <ul style="list-style-type: none"> <li>bulging of the tympanic membrane</li> <li>erythema</li> <li>recent (&lt;48 hrs) onset of ear pain (<a href="#">otalgia</a>)</li> <li>intense erythema</li> <li>new onset of otorrhea, not due to acute otitis externa</li> </ul>	<p><b>Name:</b> Appropriate diagnosis based on AOM criteria</p> <p><b>Definition:</b> Percentage of patients diagnosed with AOM that had two or more AOM criteria present upon exam</p> <p><b>Source:</b> Question #2</p> <p><b>Numerator:</b> Yes selected in Question #2</p> <p><b>Denominator:</b> Total Number of Charts</p>	100%
<p>100% of patients will be assessed for the option of additional observation (ie, watchful waiting) criteria based on <a href="#">Table 4: Recommendations for Initial Management for Uncomplicated AOM</a></p>	<p>3. Did the provider seeing the patient assess the patient for, additional observation (ie, watchful waiting) criteria based on <a href="#">Table 4: Recommendations for Initial Management for Uncomplicated AOM?</a></p> <p><input type="radio"/> Yes  <input type="radio"/> No</p>	<p><b>Name:</b> Additional observation (ie, watchful waiting) criteria assessed</p> <p><b>Definition:</b> Percentage of patients who were assessed for additional observation (ie, watchful waiting) criteria based on <a href="#">Table 4: Recommendations for Initial Management for Uncomplicated AOM</a></p> <p><b>Source:</b> Question #3</p> <p><b>Numerator:</b> Yes, selected in Question #3</p> <p><b>Denominator:</b> Total Number of Charts</p>	100%

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Aim	Data Collection Question	Measure	Goal						
100% of patient's medical records will have documentation that the patient/family was instructed to call if patient worsens or has not improved within 48-72 hours	<p>4. Did the provider seeing the patient document in the medical record that this patient/family was instructed to call if patient worsens or has not improved within 48-72 hours?</p> <p><input type="radio"/> Yes, verbal discussion, and/or printed material provided and documented in the medical record</p> <p><input type="radio"/> No documentation</p>	<p><b>Name:</b> 48- 72 hours follow-up plan documented</p> <p><b>Definition:</b> Percent of patients with documentation that the patient/family were instructed to call if patient worsens or has not improved in 48-72 hours</p> <p><b>Source:</b> Question #4</p> <p><b>Numerator:</b> Yes, Selected in Question #4</p> <p><b>Denominator:</b> Total Number of Charts</p>	100%						
100% of patients prescribed antibiotics will have documentation that the risks of antibiotic therapy were discussed with the patient/family	<p>5. Did the provider seeing the patient <a href="#">discuss</a> and document the following risks of antibiotic therapy with the patient/family?</p> <p><input type="radio"/> Yes</p> <p><input type="radio"/> No</p> <p><input type="radio"/> NA, no antibiotic prescribed</p> <table border="1" data-bbox="481 997 931 1258"> <tr> <td data-bbox="481 997 713 1111"><b>Should always be discussed</b></td><td data-bbox="713 997 931 1111"><b>Should be discussed if patient/family has concerns:</b></td></tr> <tr> <td data-bbox="481 1111 713 1192"> <ul style="list-style-type: none"> <li data-bbox="481 1111 713 1192">• Side effects</li> </ul> </td><td data-bbox="713 1111 931 1192"> <ul style="list-style-type: none"> <li data-bbox="713 1111 931 1192">• Antibiotic resistance</li> </ul> </td></tr> <tr> <td data-bbox="481 1192 713 1258"> <ul style="list-style-type: none"> <li data-bbox="481 1192 713 1258">• Allergic reaction</li> </ul> </td><td data-bbox="713 1192 931 1258"></td></tr> </table> <p><b>If Yes, or No selected, CONTINUE</b></p> <p><b>STOP</b></p> <p>If NA, no antibiotic prescribed STOP, you have completed your review of this patient.</p>	<b>Should always be discussed</b>	<b>Should be discussed if patient/family has concerns:</b>	<ul style="list-style-type: none"> <li data-bbox="481 1111 713 1192">• Side effects</li> </ul>	<ul style="list-style-type: none"> <li data-bbox="713 1111 931 1192">• Antibiotic resistance</li> </ul>	<ul style="list-style-type: none"> <li data-bbox="481 1192 713 1258">• Allergic reaction</li> </ul>		<p><b>Name:</b> Risks of antibiotic therapy discussed with patient/family</p> <p><b>Definition:</b> Percentage of patients prescribed antibiotics with documentation that risks of antibiotic therapy were discussed with the patient/family</p> <p><b>Source:</b> Question #5</p> <p><b>Numerator:</b> Yes selected in Question #5</p> <p><b>Denominator:</b> Total Number of Charts <b>MINUS N/A, no antibiotic prescribed</b> selected in Question #5</p> <p><b>NOTE:</b> Physicians may want to discuss risks of antibiotic therapy with patient/family, however, it is not required unless an antibiotic is prescribed</p>	100%
<b>Should always be discussed</b>	<b>Should be discussed if patient/family has concerns:</b>								
<ul style="list-style-type: none"> <li data-bbox="481 1111 713 1192">• Side effects</li> </ul>	<ul style="list-style-type: none"> <li data-bbox="713 1111 931 1192">• Antibiotic resistance</li> </ul>								
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# Judicious Use of Antibiotics

Aim	Data Collection Question	Measure	Goal
80% of patients treated for AOM will have the appropriate antibiotic prescribed judiciously	<p>6. What antibiotic was prescribed?</p> <ul style="list-style-type: none"> <li><input type="radio"/> a) amoxicillin</li> <li><input type="radio"/> b) amoxicillin-clavulanate</li> <li><input type="radio"/> c) cefdinir, cefuroxime, cefpodoxime, or ceftriaxone</li> <li><input type="radio"/> d) <u>Other antibiotic chosen</u></li> <li><input type="radio"/> e) None, additional observation (watchful waiting) chosen</li> </ul> <p><b>STOP</b>  <b>If option a) amoxicillin; or e) None, additional observation is selected STOP, you have completed your review of this patient.</b>  <b>If option b, c or d is selected, CONTINUE</b></p>	<p><b>Name:</b> Judicious use of antibiotics</p> <p><b>Definition:</b> Percentage of patients prescribed antibiotics for AOM judiciously</p> <p><b>Source:</b> Questions #6 &amp; 7</p> <p><b>Numerator:</b> (a) amoxicillin selected in Question #6;  <b>OR</b> b) amoxicillin-clavulanate selected in Question #6 <b>AND</b> reasons a-e selected in Question #7  <b>OR</b> c) cefdinir, cefuroxime, cefpodoxime, or ceftriaxone selected in Question #6 <b>AND</b> reasons a, b, d or e selected in Question #7</p> <p><b>Denominator:</b> Total number of charts <b>MINUS</b> (e) None, additional observation (watchful waiting) selected in Question #6</p>	80%

# Judicious Use of Antibiotics

Aim	Data Collection Question	Measure	Goal
	<p>7. If amoxicillin was not prescribed, what was the reason the patient was <u>not</u> treated with amoxicillin? (Select <u>all</u> that apply)</p> <ul style="list-style-type: none"> <li>a) <input type="checkbox"/> Patient experienced previous <u>severe</u> allergic reaction</li> <li>b) <input type="checkbox"/> Patient experienced previous <u>non-severe</u> allergic reaction</li> <li>c) <input type="checkbox"/> Patient has taken amoxicillin in the past 30 days, or has purulent conjunctivitis</li> <li>d) <input type="checkbox"/> Patient had previous adverse drug reaction with amoxicillin-clavulanate</li> <li>e) <input type="checkbox"/> Patient had known or suspected multi-drug resistant organism</li> <li>f) <input type="checkbox"/> None of the above</li> </ul>	<p><b>Not Measured</b></p> <p><b>NOTE: This question is only asked if option a) amoxicillin is <u>not</u> selected in Question #6</b></p>	

\* Definitions and references available in the Appendix

# Judicious Use of Antibiotics

## Appendix

Otalgia may present as holding, tugging, rubbing of the ear in a non-verbal child

**TABLE 4**

Recommendations for Initial Management for Uncomplicated AOM<sup>a</sup>

Age	Otorrhea With AOM <sup>a</sup>	Unilateral or Bilateral AOM <sup>a</sup> With Severe Symptoms <sup>b</sup>	Bilateral AOM <sup>a</sup> Without Otorrhea	Unilateral AOM <sup>a</sup> Without Otorrhea
6 mo to 2 y	Antibiotic therapy	Antibiotic therapy	Antibiotic therapy	Antibiotic therapy or additional observation
≥2 y	Antibiotic therapy	Antibiotic therapy	Antibiotic therapy or additional observation	Antibiotic therapy or additional observation <sup>c</sup>

**Discuss:** Physicians may want to discuss risks of antibiotic therapy with patient/family, however, it is not required unless an antibiotic is prescribed.

### Non-severe and severe allergic reactions:

- **Non-severe** symptoms include hives or pruritic (itchy) rashes.
- **Severe** symptoms include anaphylaxis, angioedema, throat tightening, wheezing plus shock, airway compromise, or cardiovascular collapse. Cardiac collapse requires intervention (eg epinephrine, corticosteroids, vasopressors).

Note: Side effects such as vomiting, abdominal pain, and diarrhea are *non-allergic*.

### Other antibiotic chosen:

Alternative Antibiotic:	Acceptable Reasons For Alternative Antibiotic:
levofloxacin, linezolid, or clindamycin	Patient experienced previous <u>severe</u> allergic reaction Patient had previous adverse drug reaction with amoxicillin-clavulanate Patient had known or suspected multi-drug resistant organism
azithromycin, trimethoprim-sulfamethoxazole, cephalexin, cefixime, tetracycline, ciprofloxacin, or moxifloxacin	These medications are considered broad-spectrum antibiotics and should not be prescribed for AOM