

Antibiotic Decision Making

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

Answer the questions based on actual chart documentation.

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>Name: Pain treatment recommended for <u>otalgia</u></p> <p>Definition: Percentage of patients for whom pain treatment was recommended for <u>otalgia</u></p> <p>Source: Question #1</p> <p>Numerator: Yes selected in Question #1</p> <p>Denominator: Total Number of Charts <u>Minus</u> N/A, <u>otalgia</u> not present, or only mild pain selected in Question #1</p> <p>KCA: Diagnose Infection Accurately</p>	100%
100% of patients diagnosed with AOM will have two or more of the following AOM criteria present upon examination:	<p>2. Were <u>at least two</u> of the following criteria for diagnosing AOM present upon the examination?</p> <ul style="list-style-type: none"> • bulging of the tympanic membrane • erythema • recent (<48 hrs) onset of ear pain (<u>otalgia</u>) • intense erythema • new onset of otorrhea, not due to acute otitis externa <p><input type="radio"/> Yes <input type="radio"/> No</p>	<p>Name: Appropriate diagnosis based on AOM criteria</p> <p>Definition: Percentage of patients appropriately diagnosed with AOM that had two or more AOM criteria present upon exam</p> <p>Source: Question #2</p> <p>Numerator: Yes selected in Question #2</p> <p>Denominator: Total Number of Charts</p> <p>KCA: Diagnose Infection Accurately</p>	100%



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Aim	Data Collection Question	Measure	Goal
100% of patients will be assessed for the option of additional observation (ie, watchful waiting) criteria based on Table 4: Recommendations for Initial Management for Uncomplicated AOM	<p>3. Did the clinician assess the patient for, additional observation (ie, watchful waiting) criteria based on Table 4: Recommendations for Initial Management for Uncomplicated AOM?</p> <p><input type="radio"/> Yes <input type="radio"/> No</p>	<p>Name: Additional observation (ie, watchful waiting) criteria assessed</p> <p>Definition: Percentage of patients who were assessed for additional observation (ie, watchful waiting) criteria based on Table 4: Recommendations for Initial Management for Uncomplicated AOM</p> <p>Source: Question #3</p> <p>Numerator: Yes, selected in Question #3</p> <p>Denominator: Total Number of Charts</p> <p>KCA: Diagnose Infection Accurately</p>	100%
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 discuss and document instructions for the patient/family to call the practice if the patient has worsened 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>Name: 48-72 hours follow-up plan documented</p> <p>Definition: Percent of patients with documentation that the patient/family was instructed to call if patient worsens or has not improved in 48-72 hours</p> <p>Source: Question #4</p> <p>Numerator: Yes, Selected in Question #4</p> <p>Denominator: Total Number of Charts</p> <p>KCA: Treat Infection Effectively</p>	100%

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Aim	Data Collection Question	Measure	Goal						
<p>100% of patients will have documentation that the risks of antibiotic therapy were discussed with the patient/family</p>	<p>5. Did any provider discuss and document the following risks of antibiotic therapy with the patient/family?</p> <p><input type="radio"/> Yes <input type="radio"/> No</p> <table border="1" data-bbox="487 556 925 935"> <tr> <td data-bbox="487 556 713 687">Should always be discussed</td> <td data-bbox="713 556 925 687">Should be discussed if patient/family has concerns</td> </tr> <tr> <td data-bbox="487 687 713 796"> <ul style="list-style-type: none"> • Side effects • Allergic reaction </td> <td data-bbox="713 687 925 796"> <ul style="list-style-type: none"> • Antibiotic resistance </td> </tr> <tr> <td data-bbox="487 796 713 935"> <ul style="list-style-type: none"> • Reasons an antibiotic is or is not prescribed </td> <td data-bbox="713 796 925 935"></td> </tr> </table>	Should always be discussed	Should be discussed if patient/family has concerns	<ul style="list-style-type: none"> • Side effects • Allergic reaction 	<ul style="list-style-type: none"> • Antibiotic resistance 	<ul style="list-style-type: none"> • Reasons an antibiotic is or is not prescribed 		<p>Name: Risks of antibiotic therapy discussed with patient/family</p> <p>Definition: Percentage of patients with documentation that risks of antibiotic therapy were discussed with the patient/family</p> <p>Source: Question #5</p> <p>Numerator: Yes selected in Question #5</p> <p>Denominator: Total Number of Charts</p> <p>KCA: Provide Guidance and Education</p>	<p>100%</p>
Should always be discussed	Should be discussed if patient/family has concerns								
<ul style="list-style-type: none"> • Side effects • Allergic reaction 	<ul style="list-style-type: none"> • Antibiotic resistance 								
<ul style="list-style-type: none"> • Reasons an antibiotic is or is not prescribed 									

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Aim	Data Collection Question	Measure	Goal
90% 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"> a) <input type="radio"/> amoxicillin b) <input type="radio"/> amoxicillin-clavulanate c) <input type="radio"/> cefdinir, cefuroxime, cefpodoxime, or ceftriaxone d) <input type="radio"/> <u>Other antibiotic prescribed</u> e) None, additional observation (watchful waiting) chosen <p>If option a) amoxicillin is selected, Skip to Question # 8;</p> <p>If option b, c or d is selected, CONTINUE</p> <p> If option e) None, additional observation is selected STOP, you have completed your review of this patient.</p>	<p>Name: Judicious use of antibiotics</p> <p>Definition: Percentage of patients prescribed antibiotics for AOM judiciously</p> <p>Source: Questions #6 & 7</p> <p>Numerator: (a) amoxicillin selected in Question #6; OR b) amoxicillin-clavulanate selected in Question #6 AND reasons a-e selected in Question #7 OR c) cefdinir, cefuroxime, cefpodoxime, or ceftriaxone selected in Question #6 AND reasons a, b, d or e selected in Question #7</p> <p>Denominator: Total number of charts MINUS (e) None, additional observation (watchful waiting) selected in Question #6</p> <p>KCA: Treat Infection Effectively</p>	90%

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Aim	Data Collection Question	Measure	Goal
N/A	<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"> a) <input type="checkbox"/> Patient experienced previous <u>severe</u> allergic reaction b) <input type="checkbox"/> Patient experienced previous <u>non-severe</u> allergic reaction c) <input type="checkbox"/> Patient has taken amoxicillin in the past 30 days, or has purulent conjunctivitis d) <input type="checkbox"/> Patient had previous adverse drug reaction with amoxicillin-clavulanate e) <input type="checkbox"/> Patient had known or suspected multi-drug resistant organism f) <input type="checkbox"/> None of the above 	<p>Not Measured</p> <p>NOTE: This question is only asked if option a) amoxicillin is <u>not</u> selected in Question #6</p>	N/A
N/A	<p>8. Did the patient meet the criteria for a short course (<=7 days) of antibiotics for AOM?</p> <p>Criteria includes patient >=2 years of age with mild or moderate AOM, ear pain <48 hours, and fever <39C (102.2F).</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>Not Measured</p>	N/A

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Aim	Data Collection Question	Measure	Goal
100% of patients with appropriate duration of antibiotic treatment prescribed, based on criteria	8a. How many days of antibiotics were prescribed? a) 0 <= 7 days b) 0 >= 8 days	<p>Name: Appropriate duration of antibiotic treatment</p> <p>Definition: Percentage of patients prescribed the appropriate duration of antibiotic therapy, based on criteria met</p> <p>Source: Question #8 & 8a</p> <p>Numerator: Yes, selected in Question #8 AND a) selected in Question #8a OR No, selected in Question #8 AND b, selected in Question #8a</p> <p>Denominator: Total Number of Charts</p> <p>KCA: Treat Infection Effectively</p>	100%

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Appendix

Otaglia

In a non-verbal child, otaglia may present as holding, tugging, rubbing of the ear.

TABLE 4¹

Recommendations for Initial Management for Uncomplicated AOM^a

Age	Otorrhea With AOM ^a	Unilateral or Bilateral AOM ^a With Severe Symptoms ^b	Bilateral AOM ^a Without Otorrhea	Unilateral AOM ^a 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 ^c

Note: Criteria for a short course (<=7 days) of antibiotics for AOM includes patients >=2 years of age with mild or moderate AOM, ear pain <48 hours, and fever <39C (102.2F).

¹Lieberthal AS, Carroll AE, Chonmaitree T, et al. [AAP Clinical Practice Guideline: the diagnosis and management of acute otitis media](#). *Pediatrics*. 2013;131(3):e964-e999

Antibiotic Resistance

Antibiotic resistance refers to bacteria that have become resistance to the antibiotics designed to kill them. The overuse and/or inappropriate use of antibiotics can result in the drugs' ability to treat the infection.

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 Prescribed¹

Antibiotic	Remarks
levofloxacin, linezolid, or clindamycin ²	May be recommended if: <ul style="list-style-type: none"> • Patient experienced previous <u>severe</u> allergic reaction

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	<ul style="list-style-type: none"> • 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	NOT recommended. These medications do not provide appropriate coverage for typical bacterial AOM pathogens.

¹[AAP Clinical Practice Guideline: The Diagnosis and Management of Acute Otitis Media](#) *Pediatrics*; 2013; 131(3); 1451 -1465. March 2013