

# Antibiotic Decision Making

## Data Collection Tool – 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.**

### Questions for Patients Diagnosed with Acute Otitis Media

1. If [otalgia](#) was present, was pain treatment recommended?  
☐ Yes   ☐ No   ☐ N/A, [otalgia](#) not present, or only mild pain
  
2. Were at least two of the following criteria for diagnosing AOM present upon the examination?
  - bulging of the tympanic membrane
  - erythema
  - recent (<48 hrs) onset of ear pain ([otalgia](#))
  - intense erythema
  - new onset of otorrhea, not due to acute otitis externa☐ Yes   ☐ No
  
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?](#)  
☐ Yes   ☐ No
  
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?  
☐ Yes, verbal discussion and/or printed material provided and documented in the medical record  
☐ No documentation
  
5. Did any provider discuss and document the following risks of antibiotic therapy with the patient/family?  
☐ Yes   ☐ No

Should always be discussed	Should be discussed if patient/family has concerns
<ul style="list-style-type: none"> <li>• Side effects</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Antibiotic resistance</a></li> </ul>
<ul style="list-style-type: none"> <li>• Allergic reaction</li> </ul>	
<ul style="list-style-type: none"> <li>• Reasons an antibiotic is or is not prescribed</li> </ul>	

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6. What antibiotic was prescribed?
- a) ☐ amoxicillin
  - b) ☐ amoxicillin-clavulanate
  - c) ☐ cefdinir, cefuroxime, cefpodoxime, or ceftriaxone
  - d) ☐ [Other antibiotic prescribed](#)
  - e) ☐ None, additional observation (watchful waiting) chosen

If option a) amoxicillin is selected, **Skip to Question # 8;**

If option b, c or d is selected, **CONTINUE**



If option e) None, additional observation is selected **STOP**, you have completed your review of this patient.

7. If amoxicillin was not prescribed, what was the reason the patient was **not** treated with amoxicillin?  
(Select all that apply).
- a) ☐ Patient experienced previous [severe](#) allergic reaction
  - b) ☐ Patient experienced previous [non-severe](#) allergic reaction
  - c) ☐ Patient has taken amoxicillin in the past 30 days, or has purulent conjunctivitis
  - d) ☐ Patient had previous adverse drug reaction with amoxicillin-clavulanate
  - e) ☐ Patient had known or suspected multi-drug resistant organism
  - f) ☐ None of the above
8. Did the patient meet the criteria for a short course ( $\leq 7$  days) of antibiotics for AOM?  
Criteria includes: patient  $\geq 2$  years of age with mild or moderate AOM, ear pain  $< 48$  hours, and fever  $< 39^\circ\text{C}$  ( $102.2^\circ\text{F}$ ).
- ☐ Yes      ☐ No
- 8a. How many days of antibiotics were prescribed?
- a) ☐  $\leq 7$  days
  - b) ☐  $\geq 8$  days

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## Appendix

### Otalgia

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

**TABLE 4<sup>1</sup>**  
**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>

**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).

<sup>1</sup>Lieberthal 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 Prescribed<sup>1</sup>

Antibiotic	Remarks
levofloxacin, linezolid, or clindamycin	May be recommended if: <ul style="list-style-type: none"> <li>• Patient experienced previous <a href="#">severe</a> allergic reaction</li> <li>• Patient had previous adverse drug reaction with amoxicillin-clavulanate</li> <li>• Patient had known or suspected multi-drug resistant organism</li> </ul>
azithromycin, trimethoprim-sulfamethoxazole, cephalexin, cefixime, tetracycline, ciprofloxacin, or moxifloxacin	NOT recommended. These medications do not provide appropriate coverage for typical bacterial AOM pathogens.

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