

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
• Side effects	
• Allergic reaction	
• Reasons an antibiotic is or is not prescribed	<ul style="list-style-type: none"> • Antibiotic resistance

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6. What antibiotic was prescribed?

- O amoxicillin
- O amoxicillin-clavulanate
- O cefdinir, cefuroxime, cefpodoxime, or ceftriaxone
- O Other antibiotic prescribed
- O 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).

- O Patient experienced previous severe allergic reaction
- O Patient experienced previous non-severe allergic reaction
- O Patient has taken amoxicillin in the past 30 days, or has purulent conjunctivitis
- O Patient had previous adverse drug reaction with amoxicillin-clavulanate
- O Patient had known or suspected multi-drug resistant organism
- O None of the above

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

O Yes O No

8a. How many days of antibiotics were prescribed?

- O <=7 days
- O >= 8 days

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Appendix

Otalgia

In a non-verbal child, otalgia 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	May be recommended if: <ul style="list-style-type: none"> • Patient experienced previous severe 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	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