NM Northwestern Medicine

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**OUTPATIENT STEWARDSHIP TIP SHEET**

# Acute Otitis Media (AOM)

**Pediatric cases of acute otitis media are most often caused by viruses**

## Symptoms & Clinical Findings

- often preceded by nasal congestion from a respiratory illness or seasonal allergies
- symptoms include acute ear pain (unilateral, especially in adults) and muffled hearing
- infants may be fussy, with excessive crying, poor feeding, or tugging at the affected ear

## Diagnostic Testing

- to diagnose AOM, **visualize** a bulging or perforated tympanic membrane (TM), an air-fluid level behind the tympanic membrane, or evidence of perforated tympanic membrane with drainage
- there is no routine laboratory test for AOM
- only send an ear culture if the patient has failed therapy and there is drainage from the ear

## Treatment

### Adults—Add topical therapy if TM rupture

**Standard Antibiotics**

**Amoxicillin-clavulanate** 875 mg-125 mg BID

**Penicillin Allergy History** (select ONE) **(**see NM O/P Allergy Risk Assessment first**)**

**Low or Moderate Risk Beta-lactam Allergy Hx**

**Cefuroxime^** 500 mg BID

OR

**Cefpodoxime^** 200 mg BID

**High Risk Beta-lactam Allergy Hx**

**Doxycycline** 100 mg BID

If TM rupture present, consider adding topical ciprofloxacin-dexamethasone, ofloxacin or 2% to 3% acetic acid for 7-10 days

**Do not use cefdinir or azithromycin**

^dissimilar drug structure from penicillins

### Pediatric—Treatment is Dependent on Age & Severity

**Nonsevere presentation***
**AND**
**Ear pain < 48 hours**
**AND**
**Meets ear involvement criteria:**
Age 6-23 months (only 1 ear affected)
Age ≥24 months (1-2 ears affected)

**Watchful waiting** (give CDC Handout and **articulate plan for postdated prescription or repeat visit**
PRN if symptoms persist 48-72 hrs.

OR

**Standard Antibiotics**

**Amoxicillin** 90 mg/kg/day divided BID
OR *if receipt of amoxicillin within 30 days, AOM refractory to amoxicillin or concurrent purulent conjunctivitis:*
**Amoxicillin-clavulanate**
600 mg-42.9 mg/5 mL ES formulation
OR
1000 mg-62.5 mg XR formulation
90 mg/kg/day divided BID
(dose based on amox component)
(maximum dose (amox): 4 g/day)

**Penicillin Allergy History (see NM O/P Allergy Risk Assessment first)**

**Low or Moderate Risk Beta-lactam Allergy Hx**

**Cefpodoxime^** 10 mg/kg/day divided BID
(maximum dose: 400 mg/day

OR

**Cefixime^** 8 mg/kg/day divided BID (maximum dose: 400 mg/day)

**High Risk Beta-lactam Allergy Hx**

**Clindamycin** 30 mg/kg/day divided TID
(maximum dose: 900 mg/day)

**Do not use cefdinir or azithromycin**

**Severe presentation***
**OR**
**underlying issues***
**OR**
**Ear pain ≥48 hours**
**OR**
**Ages 6 to 23 months, with both ears affected**
**OR**
**Age <6 months**

**For severe presentations, watchful waiting is not recommended**

**Refer to antibiotic recommendations as listed to the left**

*Severe presentation includes ANY of the following:
- fever ≥ 39°C (102.2°F)
- moderate or severe ear pain
- purulent ear drainage

*Underlying medical issues include
- presence of cochlear implant
- immunocompromised status

## Duration of antibiotics

**10 days** for acute otitis media in all patients except for:
**5 to 7 days** for children age ≥24 months with nonsevere presentation and no underlying issues

## Adjunctive measures

NSAIDs or acetaminophen

**Key Points for Counseling Patients**

**1. NSAIDs or acetaminophen can reduce pain rapidly**

2. By 48 to 72 hours, a child with bacterial AOM on effective antibiotics should have less pain, less fussiness and less fever.

**When to Consider Transfer to ED**

1. Headaches, neck stiffness, photophobia, confusion or mental status changes.
2. Concern for deeper infection, e.g., mastoiditis, facial paralysis.

**Updated 10.18.2023**

ADSP Northwestern Medicine Antimicrobial and Diagnostic Stewardship Program