Acute Otitis Media (AOM) in Children and Adolescents

**Key points**
- Most cases (>80%) of AOM are viral and resolve spontaneously
- Consider observation for 48-72hrs in children >6 months
- Middle ear effusion and inflammation must be present for diagnosis

**Signs and symptoms of acute otitis media (not all may be present):**
1) Recent onset of symptoms
2) Otalgia (more common age>2)
3) Fever (30-50%)
4) Crying, fussiness
5) Ear pulling (non-specific)
6) URI symptoms
7) Loss of appetite
8) Vomiting, diarrhea

**Middle ear effusion**
- decreased mobility tympanic membrane (TM)
- bulging TM – air fluid level
- otorrhea

**Middle ear inflammation**
- TM erythema
- otalgia interfering with normal activity or sleep

**Treat pain**
- acetaminophen (or NSAID if >6 months)
- warm compresses
- topical anesthetic (if TM intact)

**Middle ear effusion** AND signs of middle ear inflammation present

**TM intact AND non-severe illness**
(mild otalgia and fever <39°C)

Consider observation for 48-72hrs (if >6 months)
OR
Delayed antibiotic prescription† to fill if symptoms don’t improve in 48-72hrs

**Perforated TM OR severe illness**
(mod-severe otalgia or fever ≥ 39°C)

Failed initial antibiotic therapy

1st line:
Amoxicillin/clavulanate 90/6.4 mg/kg/day divided BID (max 875mg BID) for 10 days

Alternatives for non-severe PCN allergy:
Cefpodoxime 10mg/kg/day divided BID (max 400mg BID) OR
Cefuroxime 30mg/kg/day divided BID (max 500mg BID)

If severe illness:
Ceftriaxone IM 50mg/kg/day for 3 days (max 1gm/day)

Immediate hypersensitivity PCN allergy:
Clindamycin 30mg/kg/day divided TID (max 450mg TID) or consider tympanocentesis

No improvement after 48-72 hours

**Resolution**

**Observation failure or treatment chosen**

†1st line initial therapy:
Amoxicillin 80-90mg/kg/day divided BID (max 1gm BID) for:
- 10 days if <6 years
- 5 days if >/=6 years

**Alternatives for non-severe PCN allergy:**
Cefdinir 14mg/kg/d divided BID (max 300mg BID) OR
Cefpodoxime 10mg/kg/day divided BID (max 400mg BID) OR
Cefuroxime 30mg/kg/day divided BID (max 500mg BID)

**Immediate hypersensitivity PCN allergy:**
Azithromycin 10mg/kg on day 1 (max 500mg), then 5mg/kg (max 250mg) days 2-5

**Disclaimer:** This is intended only as a guide for evidence-based decision-making; it is not intended to replace clinical judgment. Assess for antibiotic allergies and use alternative agents as appropriate. Suggested antibiotic doses are for normal renal function; adjust for renal impairment when necessary.