Quality Care Network

Rainbow Care Connection

Clinical Practice Guidelines

Outpatient Acute Otitis Media (AOM)

Acute otitis media (AOM) is commonly seen in pediatric patients. Accurate diagnosis and treatment is necessary to provide the patient with the best possible care. The inclusion criteria is children over 2 months old. The following Clinical Practice Guideline (CPG) was developed by the Rainbow Care Connection (RCC) committee, reviewed by RBC antimicrobial stewardship program and approved by the Quality Care Network Board. The goal of this guideline is to provide a care path to improve quality patient care outcomes.

What to know about the management of outpatient AOM

- **Common infectious pathogens**: *S. pneumoniae, H. influenzae, M. catarrhalis, S. pyogenes*
- **The diagnosis** of AOM requires a middle ear effusion with findings of inflammation on otoscopic exam, specifically at least one of these signs:
  - Moderate to severe TM bulging
  - Mild TM bulging and acute otalgia (onset in last 48 hours)
  - Mild TM bulging and intense erythema of the TM
  - New onset otorrhea (not due to otitis externa)
- The presence of a middle ear effusion alone may represent otitis media with effusion (OME), which does not require treatment with antibiotics

Follow-up:

- Patient should return for re-evaluation if symptoms persist or worsen within 48-72 hours after starting treatment
- Routine 2-4 week follow-up after AOM is generally **not** indicated but can be considered in a child with recurrent disease or an infant/toddler with severe disease

Treatment

Treat pain with ibuprofen (10mg/kg/dose every 6 hours in children >6 months old) and/or acetaminophen (15mg/kg/dose every 4-6 hours)

If mild signs or symptoms.
Mild is defined as mild otalgia for less than 48 hours, fever <39℃ and

1. Unilateral AOM in children 6 months to 23 months old
2. Unilateral or bilateral AOM in children >2 years old

Consider observation with close follow-up.

Switch from observation to antibiotic therapy if symptoms persist or worsen over 48-72 hours.

If severe unilateral or bilateral AOM. Severe is defined as moderate or severe otalgia, otalgia >48h, or temperature > 39℃

If mild bilateral AOM in child <2 years old

Use antibiotics.

Referral:

- Referral may be considered if patient fails 2nd or 3rd line of antibiotics or develops complications of AOM
- Consider referral to ENT for possible PE tubes if a child has ≥3 episodes of AOM in 6 months or ≥4 episodes of AOM in 12 months (with at least one episode in the past 6 months)
- Patients with persistent OME (>3 months) may benefit from an ENT referral, especially if there is a concern for hearing difficulties or developmental delay

Prevention:

- Encourage pneumococcal vaccination and annual influenza vaccination
- Encourage exclusive breastfeeding for the first 6 months of life
- Avoid tobacco smoke exposure

Treatment

Antibiotics for Acute Otitis Media Duration: <2 years old: 10 days; >2 years old: 7 days	
First line	**Amoxicillin** 90 mg/kg/day divided BID (max 1000 mg/dose)
First line If concurrent purulent conjunctivitis or receipt of amoxicillin within past 30 days **OR** **Amoxicillin failure**	**Amoxicillin-clavulanate** 90 mg/kg/day (amoxicillin component) divided BID (max 1000 mg/dose) *Use ES preparation for high dose Amoxicillin and regular dose clavulanate*
Amoxicillin-clavulanate failure	**Ceftriaxone** 50 mg/kg IM daily x 3 days
Non-type 1 β-lactam allergy (No hives or anaphylaxis)	**Cefdinir** 14 mg/kg/day daily (max 300 mg/dose)
Type 1 β-lactam allergy (hives or anaphylaxis)	**Levofloxacin** <5 years old: 20 mg/kg/day divided BID (max 375 mg/dose) >5 years old: 10 mg/kg daily (max 750 mg/dose)
Otitis media with tubes	**Ofloxacin** 5 drops in affected ear BID for 10 days **OR** **Ciprofloxicin/dexamethasone otic** 4 drops in affected ear BID for 10 days
Azithromycin has poor coverage of the typical AOM pathogens and is <u>not</u> recommended for the treatment of AOM	

Consider referral to allergist for allergy testing if antibiotic allergy diagnosis uncertain or initial allergy diagnosis was greater than 10 years ago