Key Points

- Acute otitis media (AOM) is a clinical diagnosis.
- Not all AOM require antibiotic treatment.
- Pain control is an important part of therapy.
- Chronic or repeat infections can lead to impaired hearing and speech delay in young children

Diagnosis:

1. Acute onset of signs and symptoms
2. Signs of middle ear effusion
   a. Bulging of the TM
   b. Limited or absent mobility of the TM
   c. Air-fluid level behind the TM
   d. Otorrhea – drainage from the ear
3. Presence of signs and symptoms of middle-ear inflammation
   a. Distinct erythema of TM

All three findings are necessary for a diagnosis of AOM. If a child has middle ear effusion without signs of inflammation (pain, erythema), then the diagnosis is otitis media with effusion (OME)

Treatment:

- First- start immediate pain control
  o Use simple analgesics (acetaminophen, ibuprofen)
- Determine timing for/need of antibiotics
  o Patients < 6 months of age
    ▪ Start antibiotics at time of diagnosis
  o Patients 6-24 months
    ▪ If certain diagnosis of AOM or severe illness
      • Begin antibiotics immediately
    ▪ If uncertain diagnosis of AOM and non-severe illness
      • May delay antibiotics, observe and treat pain for 48-72 hours
  o Patients > 2 years
    ▪ If certain diagnosis of AOM and severe illness
      • Begin antibiotics upon diagnosis
    ▪ If certain diagnosis of AOM and non-severe illness
      • May delay antibiotics, observe and treat pain for 48-72 hours
    ▪ If uncertain diagnosis of AOM
      • May delay antibiotics, observe and treat pain for 48-72 hours
- If delaying antibiotic use
  o Ensure patient has easy access to follow up
May give a prescription that family will only fill if symptoms worsen  
Only an option in otherwise healthy children  
Children with concomitant chronic illness or cochlear implant should be treated immediately with antibiotics and have close follow-up with their primary care provider.

**Choosing an Antibiotic:**

<table>
<thead>
<tr>
<th>Situation</th>
<th>Antibiotic Choice</th>
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<tbody>
<tr>
<td>First line therapy in non PCN allergic children</td>
<td>Amoxicillin 80-90mg/kg/day divided in 2 doses x 10 days (max dose 800 BID)</td>
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<tr>
<td>If child has received amoxicillin within the preceding 30 days or has concurrent conjunctivitis (this would suggest infection with H. Flu)</td>
<td>Amoxicillin-Clavulanate 90mg/kg/day of amoxicillin divided in 2 doses x 10 days (max dose 800 BID)</td>
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<tr>
<td>If patient has a PCN allergy</td>
<td>If non-type I allergic reaction (no previous history of respiratory involvement)</td>
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<tr>
<td></td>
<td>• Cefdinir 14 mg/kg/day in 1 or 2 doses x 10 days</td>
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<td></td>
<td>• Cefuroxime 30mg/kg/day in 2 doses x 10 days</td>
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<td></td>
<td>• Cefpodoxime 10mg/kg/day in 2 doses x 10 days</td>
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<td></td>
<td>• Ceftriaxone 50mg/kg/dose IM or IV x 3 days</td>
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<tr>
<td>If type I allergic reaction (respiratory symptoms)</td>
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<tr>
<td></td>
<td>• Azithromycin 10mg/kg day 1, 5mg/kg days 2-5</td>
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<tr>
<td></td>
<td>• Clarithromycin</td>
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<td></td>
<td>• Age 2-mo- 5yrs 15 mg/kg in 2 doses x 10 days</td>
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<tr>
<td></td>
<td>• Age 6-12yo 15mg/kg/day in 2 doses x 5-10 days</td>
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<tr>
<td>If patient does not improve on amoxicillin within 48-72 hours</td>
<td>Amoxicillin-Clavulanate 90mg/kg/day of amoxicillin divided in 2 doses x 10 days (max dose 800 BID)</td>
</tr>
<tr>
<td>If patient fails Amoxicillin-Clavulanate or oral cephalosporin therapy</td>
<td>Ceftriaxone 50mg/kg IM or IV x 3 days</td>
</tr>
<tr>
<td>If patient fails Ceftriaxone</td>
<td>Clindamycin 10-25 mg/kg/day divided TID + Cefdinir or cefpodoxime</td>
</tr>
</tbody>
</table>

**Follow-up**

- Not routinely recommended
- May consider follow-up after treatment - young child with severe disease, recurrent disease, parental request

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References:

The Diagnosis and Management of Acute Otitis Media
E. Tunkel, M. Rosenfeld, Xavier D. Sevilla, Richard H. Schwartz, Pauline A. Thomas and David, Alejandro Hoberman, Mary Anne Jackson, Mark D. Joffe, Donald T. Miller, Richard, Allan S. Lieberthal, Aaron E. Carroll, Tasnee Chonmaitree, Theodore G. Ganiats
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