Otitis Media Treatment Guidelines

Otitis media is a common infection of the middle ear, which is the space behind the eardrum. It can occur in people of all ages but is most commonly seen in young children. Acute otitis media (AOM) is a type of otitis media that comes on suddenly and usually causes swelling, inflammation, and infection in the middle ear. It can be caused by bacteria or viruses and typically occurs after a cold or other upper respiratory infection.

Treatment options

- Once acute otitis media (AOM) is diagnosed, the treatment goal is to control pain and treat the infection with antibiotics.
- Non-steroidal anti-inflammatory drugs (NSAIDs) or acetaminophen can be used for pain control.
- Watchful waiting is practiced in European countries without an increased incidence of complications, but it isn't widely accepted in the United States.
- If clinical evidence of suppurative AOM exists, oral antibiotics are indicated, with high-dose amoxicillin or second-generation cephalosporin as the first-line agents.
- In cases of tympanic membrane perforation, ototopical antibiotics safe for middle-ear use, such as ofloxacin, should be used instead of systemic antibiotics.
- For bacterial etiology, the antibiotic of choice is high-dose amoxicillin for ten days in both non-penicillin-allergic children and adult patients.
- Amoxicillin is effective in treating otitis media due to its high concentration in the middle ear.
- For penicillin-allergic patients, options include:
    - Azithromycin: Single dose of 10 mg/kg
    - Clarithromycin: 15 mg/kg per day in 2 divided doses
    - Cefdinir: 14 mg/kg per day in 1 or 2 doses
    - Cefpodoxime: 10 mg/kg per day, once daily
    - Cefuroxime: 30 mg/kg per day in 2 divided doses
    - If symptoms do not improve after high-dose amoxicillin, high-dose amoxicillin-clavulanate (90 mg/kg per day of amoxicillin with 6.4 mg/kg per day of clavulanate in 2 divided doses) should be given.
- For children who are vomiting or cannot take oral antibiotics, ceftriaxone (50 mg/kg per day) for three consecutive days, either intravenously or intramuscularly, is an alternative.
- Patients with four or more episodes of AOM in the past twelve months should be considered for myringotomy with tube (grommet) placement.
- Recurrent infections requiring antibiotics indicate Eustachian tube dysfunction, and tympanostomy tube placement allows ventilation of the middle ear space and maintenance of normal hearing.
- If otitis media occurs while a functioning tube is in place, treatment can be done with ototopical antibiotic drops rather than systemic antibiotics.

Reference

Danishyar, A., & Ashurst, J. V. (2023). *Acute otitis media*. PubMed; StatPearls Publishing. https://www.ncbi.nlm.nih.gov/books/NBK470332/#:~:text=When%20a%20bacterial%20etiology%20is