Treatment of Acute Otitis Media in Children

Acute otitis media (AOM) is the most common reason for which antibiotics are prescribed in the pediatric population and accounts for approximately 30 million office visits in the US annually.[1]

Although viral sources are believed responsible for many cases of AOM in children, antibiotic therapy is often prescribed for common suspected bacterial pathogens including *Streptococcus pneumoniae, Haemophilus influenzae,* and *Moraxella catarrhalis*.[3,4,5,6]

KEY POINTS

- Acute otitis media is the most common reason for which antibiotics are prescribed in the pediatric population.[2,3,6]
- The most likely pathogens include viruses, *Streptococcus pneumoniae, Moraxella catarrhalis,* and *Haemophilus influenza*.[5,6]
- Current guidelines recommend the “watch-and-wait approach” of withholding antibiotic therapy for 48-72 hours for most patients and if no improvement is noted, high-dose amoxicillin (80-90 mg/kg per day) is indicated first-line.[6]
- If resistance is suspected, high-dose amoxicillin with clavulanate (Augmentin®) is appropriate.[6]
- The recommended duration of treatment is 5-7 days for children ≥6 years of age and 10 days for children <6 years. [6]

The so-called “watch-and-wait approach” has been formally advocated since 2000 and recommends withholding antibiotic therapy for 48-72 hours and then initiating treatment after that time if no symptom improvement is noted. Utilization of this practice has compared favorably to antibiotic treatments with potential for the added benefits of decreasing the development of antibiotic resistance and reducing the overall cost of care.[5,6,7]

Current guidelines recommend the use of high-dose amoxicillin (80-90 mg/kg per day) or the watch-and-wait approach as first-line therapy for children 2 months to 12 years of age diagnosed with AOM. These recommendations are for otherwise healthy children without co-morbid conditions that may affect progression or other complications. If antibiotic therapy is indicated in a child who has had exposure to daycare or hospital settings or if resistance is otherwise suspected, amoxicillin with clavulanate should be considered. [1,3,6,7]

Amoxicillin-allergic patients may be prescribed azithromycin or clarithromycin if the past reaction to an amoxicillin-class agent was indicative of severe anaphylaxis. If the reaction was less severe, use of cefdinir, cefpodoxime, or cefuroxime is appropriate. According to current guidelines, trimethoprim/sulfamethoxazole may likewise be considered as an alternative to amoxicillin or macrolides in allergic patients.

Table 1: Cost Comparison of Antibiotics for AOM

Generic Name	Brand Name	Cost^
Amoxicillin	Amoxil®	$7.99-15.97*
Amoxicillin/ Clavulanate	Augmentin®	$35.99-70.56*
Azithromycin	Zithromax®	$32.27-62.57*
Clarithromycin	Biaxin®	$39.73-71.38*
Cefdinir	Omnicef®	$84.19-160.26*
Cefpodoxime	Vantin®	$108.33**
Cefuroxime	Cefzil®	$70.99**
Trimethoprim/ Sulfamethoxazole	Septra®	$21.99-40.28*

^ Prices from www.drugstore.com. Accessed 5/29/07.
*Liquid formulation for 10 day supply
** Tablet formulation for 10 day supply

References

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