CAREFUL ANTIBIOTIC USE

Stemming the tide of antibiotic resistance: Recommendations by CDC/AAP to promote appropriate antibiotic use in children.[1, 2]

PEDIATRIC APPROPRIATE TREATMENT SUMMARY

Otitis Media

1. Classify episodes of otitis media (OM) as acute otitis media (AOM) or otitis media with effusion (OME). Only treat *certain children* with proven AOM.
2. A certain diagnosis of AOM meets three criteria:
   - History of acute onset of signs and symptoms
   - Presence of middle ear effusion
   - Signs or symptoms of middle-ear inflammation

   Severe illness is moderate to severe otalgia or fever ≥ 39C.
   Non-severe illness is mild otalgia and fever < 39C in the past 24 hours.
3. Children with AOM who should be treated as follows:

Age	Certain Diagnosis	Uncertain Diagnosis
< 6 mo	Antibacterial therapy	Antibacterial therapy
6 mo to 2 y	Antibacterial therapy	Antibacterial therapy if severe illness; observation option* if nonsevere illness
≥ 2 y	Antibacterial therapy if severe illness; observation option* if nonsevere illness	Observation option*

4. Don't prescribe antibiotics for initial treatment of OME:
   - Treatment may be indicated if bilateral effusions persist for 3 months or more.

* If decision is made to treat with an antibacterial agent, the clinician should prescribe amoxicillin for most children.

Rhinitis and Sinusitis

Rhinitis:
1. Antibiotics should not be given for viral rhinosinusitis.
2. Mucopurulent rhinitis (thick, opaque, or discolored nasal discharge) frequently accompanies viral rhinosinusitis. It is not an indication for antibiotic treatment unless it persists without improvement for more than 10-14 days.

Sinusitis:
1. Diagnose as sinusitis only in the presence of:
   - prolonged nonspecific upper respiratory signs and symptoms (e.g. rhinorrhea and cough without improvement for > 10-14 days), or
   - more severe upper respiratory tract signs and symptoms (e.g. fever >39C, facial swelling, facial pain).
2. Initial antibiotic treatment of acute sinusitis should be with the most narrow-spectrum agent which is active against the likely pathogens.

Pharyngitis

1. Diagnose as group A streptococcal pharyngitis using a laboratory test in conjunction with clinical and epidemiological findings.
2. Antibiotics should not be given to a child with pharyngitis in the absence of diagnosed group A streptococcal infection.
3. A penicillin remains the drug of choice for treating group A streptococcal pharyngitis.

Cough Illness and Bronchitis

1. Cough illness/bronchitis in children rarely warrants antibiotic treatment.
2. Antibiotic treatment for prolonged cough (>10 days) may occasionally be warranted:
   - Pertussis should be treated according to established recommendations.
   - *Mycoplasma pneumoniae* infection may cause pneumonia and prolonged cough (usually in children > 5 years); a macrolide agent (or tetracycline in children ≥ 8 years) may be used for treatment.
   - Children with underlying chronic pulmonary disease (not including asthma) may occasionally benefit from antibiotic therapy for acute exacerbations.

When parents demand antibiotics…

- ☐ Provide educational materials and share your treatment rules to explain when the risks of antibiotics outweigh the benefits.
- ☐ Build cooperation and trust:
  - Don't dismiss the illness as "only a viral infection"
  - Give parents a realistic time course for resolution
  - Explicitly plan treatment of symptoms with parents
  - Prescribe analgesics and decongestants, if appropriate

1. Dowell SF, Editor. Principals of judicious use of antimicrobial agents for children's upper respiratory infections. Pediatrics. Vol 1. January 1998 Supplement.
2. American Academy of Pediatrics and American Academy of Family Physicians, Subcommittee on Management of Acute Otitis Media. Diagnosis and management of acute otitis media. Pediatrics 2004;113:1451-1.