

JUDICIOUS ANTIBIOTIC USE

*Cough illness in the well-appearing patient:
Antibiotics are NOT the answer.*

Cough Illness/Bronchitis

Cough illness/bronchitis is principally caused by viral pathogens.¹ Airway inflammation and sputum production are non-specific responses and do not imply a bacterial etiology.

Authors of a meta-analysis of six randomized trials (in adults) concluded that antibiotics were ineffective in treating cough illness/bronchitis.²

Antibiotic treatment of upper respiratory infections do not prevent bacterial complications such as pneumonia.³

Do not use antibiotics for:

- Cough < 10–14 days in well-appearing non-smoking patient without physical signs of pneumonia.

Consider antibiotics only for:

- Suspected pneumonia, based on fever with focal exam, infiltrate on chest x-ray, tachypnea, or toxic appearance.
- Prolonged cough (>10–14 days without improvement) may suggest specific illnesses (e.g. sinusitis) that warrant antibiotic treatment.⁴
- Treatment with a macrolide (erythromycin) may be warranted in the non-smoking patient older than 5 years when mycoplasma or pertussis is suspected.⁵

When patients and families demand antibiotics...

- Acknowledge the patient's symptoms and discomfort.
- Promote active management with non-pharmacologic treatments.
- Give realistic time course for resolution.
- Share the CDC/AAP/ACP-ASIM⁶ principles with patients to help them understand when the risks of antibiotic treatment outweigh the benefits.
- Refer to the AFMC Save the Antibiotic campaign when explaining that an antibiotic is NOT necessary.

References

1. Chapman RS, Henderson FW, Clyde WA, Collier AM, Denny FW. The epidemiology of tracheobronchitis in pediatric practice. *Am J Epidemiol* 1981;114:789-797.
2. Orr PH, Scherer K, Macdonald A, Moffatt MEK. Randomized placebo-controlled trials of antibiotics for acute bronchitis: a critical review of the literature. *J Fam Pract* 1993;36:507-512.
3. Gadomski AM. Potential interventions for preventing pneumonia among young children: lack of effect of antibiotic treatment for upper respiratory infections. *Pediatr Infect Dis J* 1993;12:115-120.
4. Wald E. Management of Sinusitis in infants and Children. *Pediatr Infect Dis J* 1998;7:449-452.
5. Denny FW, Clyde WA, Glezen WP. *Mycoplasma pneumoniae* disease: clinical spectrum, pathophysiology, epidemiology and control. *J Infect Dis* 1971;123:74-92.
6. ACP-ASIM. Principles of appropriate antibiotic use for acute bronchitis in adults. *Ann Intern Med.* 2001; 134: 518-20.



Save the Antibiotic. Don't Use It When You Don't Need It.