

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 pneumonia 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.