# Practice Guidelines

## ACP/CDC PROVIDE GUIDELINES ON THE USE OF ANTIBIOTICS FOR ACUTE RESPIRATORY TRACT INFECTION

Approximately one-half of outpatient antibiotic prescriptions may be inappropriate or unnecessary, imposing high economic and public health costs. The American College of Physicians (ACP) and Centers for Disease Control and Prevention (CDC) guideline on appropriate antibiotic use in the treatment of healthy adults with acute respiratory tract infection outlines one of the medical community's top priorities. Currently, most antibiotics prescribed in the office setting are for illnesses in this category, despite evidence that they may cause harm or otherwise do not benefit patients with some of the most common infections.

### Providing High-Value Care

Nonviral etiologies of acute uncomplicated bronchitis are rare but often indistinguishable from viral causes. Bacterial infections may not always warrant antibiotics, such as in cases of acute cough. Evidence does not show a higher standard of clinical improvement when antibiotics are used to treat bronchitis compared with placebo. Over-the-counter therapies, which are less likely to cause harm, may provide symptom relief. Diagnostic testing and antibiotic therapy for acute uncomplicated bronchitis should be avoided unless pneumonia is suspected.

Pharyngitis is similarly unlikely to be caused by a bacterial pathogen, but requires that physicians use rapid antigen detection testing, throat culture, or both to rule out group A *Streptococcus* or serious infection if suspicious symptoms are present. Clinical scoring systems are available to assist in differentiating bacterial from viral etiologies of pharyngitis. Most patients with sore throat do not need a prescription medication, but they may benefit from analgesics. However, a positive streptococcal test should prompt appropriate narrow-spectrum antibiotic therapy.

Supportive care is the most suitable option for most patients with acute rhinosinusitis. Such infections are self-limited in almost all cases, even when bacterial. Antibiotics are largely ineffective and are more likely to cause harm than benefit unless rhinosinusitis symptoms indicate a bacterial cause, for example, they persist for more than 10 days or reappear after a period of improvement, called "double sickening." Other severe signs and symptoms that suggest bacterial infection are purulent nasal discharge with high fever or facial pain lasting at least three days in a row.

Antibiotics do not improve symptoms or prevent complications of the common cold. A number of symptomatic therapies may be offered instead.

### Discussing Antibiotic Use with Patients

Over the course of a year, most adults will experience at least two acute respiratory tract infections. Educating patients about symptom duration (e.g., coughing can last up to six weeks) is a recognized approach to overcoming barriers to appropriate antibiotic prescribing. Additional talking points include addressing the serious harm that can result from use of antibiotics, such as *Clostridium difficile* infection, and their failure to reduce the time to recovery for most acute respiratory tract infections.

*Source:* Adapted from Am Fam Physician. 2016;94(12):1016.

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### Temperature-pulse Relationship

- The temperature-pulse relationship is linear in healthy subjects.
- There is an increase in heart rate of 4.4 beats/min for each 1°C (2.44 beats/min for each 1°F) rise in core temperature.
- Temperature-pulse dissociation (relative bradycardia) is seen in typhoid fever, brucellosis, leptospirosis, some drug-induced fevers and factitious fever.