# PRACTICE GUIDANCE FOR JUDICIOUS USE OF ANTIBIOTICS

*Striving for better outcomes for individual patients, improved population health, and lower healthcare costs*

# ACUTE UNCOMPLICATED BRONCHITIS *(Adults)*

**This guideline is not intended for patients with COPD/chronic bronchitis or other serious comorbidities.**

## Symptoms and Diagnosis

### BRONCHITIS

(Viral >90% of cases)

Self-limited inflammation of the bronchi due to respiratory infection

- Primary symptom is cough for 1-3 weeks (cough may linger up to 6-8 weeks)
- Colored sputum occurs in 50% of cases and does NOT necessarily indicate bacterial infection
- May have wheezing or rhonchi on chest exam, but NOT rales or signs of consolidation
- Low grade fever is common early in the illness
- Using the term "chest cold" rather than bronchitis may reduce expectation for antibiotics

### CONSIDER PERTUSSIS

Treat AND test for pertussis in patients with persistent cough when any of the following are present:

- Paroxysms
- Inspiratory whoop
- Exposure to known pertussis case
- Pertussis is circulating widely in the community—
  See Washington pertussis update at: https://go.usa.gov/xRPXv

Report suspect, probable, or confirmed pertussis to local public health.

**NOTE:** Treating pertussis may not shorten duration of symptoms but helps prevent spread to contacts.

### RULE OUT PNEUMONIA

Assess oxygen saturation in addition to vital signs.

Pneumonia is UNLIKELY in healthy immunocompetent adults < 70 years without:

- Heart rate > 100 bpm
- Respiratory rate > 24 bpm
- Oral temperature > 38°C (100.4°F)
- Abnormal chest exam (rales, egophony, tactile fremitus, or dullness to percussion)
- Infiltrate on chest x-ray

### WHEN TO CONSIDER CHEST X-RAY

- Signs/symptoms or suspicion of pneumonia
- Abnormal oxygen saturation, vital signs, or chest exam
- Cough not improving after > 6-8 weeks
- Fever > 4 days, or recurrent fever after having resolved for > 24 hours
- History of smoking

**NOTE:** Treat pneumonia with antibiotics.

## Treatment

### SYMPTOMATIC TREATMENT

- Extra rest, hot drinks, oral hydration
- Analgesics/antipyretics, as needed
- Consider bronchodilators if history of asthma
- Inhale steam from shower or bath to loosen secretions
- Avoid cigarette smoke; offer smoking cessation resources, if indicated

Offer positive recommendations using this Symptomatic Prescription Pad: https://go.usa.gov/xRPXy

**NOTE:** See back for help when discussing non-antibiotic treatment plan with patients.

### AVOID ANTIBIOTICS

- Antibiotics are not needed for otherwise healthy adults with acute bronchitis
- Efficacy of antibiotics for symptom relief from bronchitis is limited, including bronchitis due to atypical bacteria
- Cough due to pertussis should be treated with antibiotic therapy (see other side for dosing)
- Offer assured follow up for if symptoms persist or worsen

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## DIFFERENTIAL DIAGNOSIS OF COUGH

In addition to cough due to acute bronchitis, persistent cough, especially cough lasting > 6-8 weeks, may be a sign of another disease process ranging from minor to serious, such as post-nasal drip syndrome, medication use (e.g., lisinopril), irritant exposure, asthma, Gastroesophageal Reflux Disease (GERD), smoking or second-hand smoke exposure, chronic bronchitis, bronchiectasis, or malignancy.

## BEST PRACTICES FOR COMMUNICATING WITH PATIENTS

- Identify and validate patient's concerns
- Provide clear recommendations including specific symptom treatment and contingency plan for if symptoms worsen
- Confirm agreement and answer questions
- Provide education about antibiotic use and associated risks, including bacterial resistance and *C. difficile*

## POTENTIAL HARMS ASSOCIATED WITH ANTIBIOTIC USE

- May cause significant side effects, such as antibiotic-associated diarrhea and allergic reactions
- Can increase the risk of carrying a drug-resistant organism which may decrease the effectiveness of antibiotics in the future and make an infection more severe
- Can result in a diarrheal disease caused by *C. difficile* which can be severe and even fatal

Visit CDC's Common Illnesses index at https://go.usa.gov/xRPXH for patient education materials.

# Antibiotic Therapy for Pertussis

| DRUG | DOSE | DURATION |
|---|---|---|
| **Azithromycin** | **Adult:** 500 mg PO x 1 dose then 250 mg PO QD x 4 days | 5 days |

Antibiotic therapy may be indicated for bronchitis in patients with comorbidities such as immunosuppression, COPD/chronic bronchitis, cystic fibrosis, or other underlying lung disease other than asthma. Recommendations for these patients is beyond the scope of this guideline.

- For treatment guidance for COPD exacerbation, see **Global Strategy for the Diagnosis, Management and Prevention of COPD, 2017**.
- For treatment guidance for community acquired pneumonia, see **Infectious Diseases Society of America/American Thoracic Society Consensus Guidelines on the Management of Community-Acquired Pneumonia in Adults.**

## ANTIBIOTIC ALLERGY

Most patients who report antibiotic allergies, particularly penicillin class allergies, do not have true drug allergies. It is important to carefully evaluate reported drug allergies starting with a history before determining whether an alternative agent is indicated.

**NOTE: This guidance is not meant to replace the clinical judgment of the individual provider or establish a standard of care.**


**REFERENCES**

1. Gonzales R, et al., Principles of appropriate antibiotic use for treatment of uncomplicated acute bronchitis: background. Ann Intern Med 2001; 134:521.
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4. Global Initiative for Chronic Obstructive Lung Disease. Global strategy for the diagnosis, management, and prevention of chronic obstructive pulmonary disease, 2017 report. Available at: http://goldcopd.org/wp-content/uploads/2016/12/wms-GOLD-2017-Pocket-Guide.pdf, accessed on July 25, 2017.
5. Mandell LA, et al., Infectious Diseases Society of America/American Thoracic Society Consensus Guidelines on the Management of Community-Acquired Pneumonia in Adults. Clin Infect Dis 2007;44:S27-72.




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