# 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](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/xRPXv](https://go.usa.gov/xRPXv)

**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
**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 HARS 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](https://go.usa.gov/xRPXH) for patient education materials.

### Antibiotic Therapy for Pertussis

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<thead>
<tr>
<th>DRUG</th>
<th>DOSE</th>
<th>DURATION</th>
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<tbody>
<tr>
<td>Azithromycin</td>
<td>Adult: 500 mg PO x 1 dose then 250 mg PO QD x 4 days</td>
<td>5 days</td>
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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.

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**REFERENCES**