Clinical Practice Guideline for Treatment of Acute Bronchitis

Acute bronchitis consistently ranks as one of the top 10 conditions for which patients seek medical care, with cough being the most frequently mentioned symptom necessitating office evaluation. The disorder affects approximately 5% of adults annually, with a higher incidence observed during the winter and fall.

Even though acute bronchitis is a common diagnosis, its definition is unclear. Acute bronchitis usually designates an acute respiratory tract infection in which a cough lasting 1-3 weeks, with or without phlegm, is a predominant feature. Although most physicians consider cough to be necessary to the diagnosis of acute bronchitis, they vary in additional requirements. Other signs and symptoms may include sputum production, dyspnea, wheezing, chest pain, fever, hoarseness, malaise, rhonchi, and rales. Each of these may be present in varying degrees or may be absent altogether. Sputum may be clear, white, yellow, green, or even tinged with blood. Peroxidase released by the leukocytes in sputum causes the color changes; hence, color alone should not be considered indicative of bacterial infection.

The evaluation of adults with an acute cough illness or a presumptive diagnosis of uncomplicated acute bronchitis should focus on ruling out serious illness, particularly pneumonia. In healthy, non-elderly adults, pneumonia is uncommon in the absence of vital sign abnormalities or asymmetrical lung sounds, and chest radiography is usually not indicated. In patients with cough lasting 3 weeks or longer, chest radiography may be warranted in the absence of other known causes. Fever and hemoptysis are important additional factors that likely point to more than a “viral” cause to acute bronchitis and would likely indicate at least a chest radiograph, and possibly antibiotic, antitussive or anti-inflammatory therapy.

Viruses are usually considered the cause of acute bronchitis. **Routine antibiotic treatment of uncomplicated acute bronchitis is not recommended**, regardless of duration of cough. According to the 2001 guidelines of the American College of Physicians, for the treatment of uncomplicated acute bronchitis, antibiotic treatment is not recommended, regardless of duration of cough. In the 2006 guidelines of the American College of Chest Physicians (ACCP) the recommendations for treating acute bronchitis reiterates **routine treatment with antibiotics is not justified**, antitussive agents are only occasionally useful, and there is no routine role for inhaled bronchodilators (except in select patients) or mucolytic agents.

Inappropriate antibiotic treatment of adults with acute bronchitis is of clinical concern, especially since misuse and overuse of antibiotics lead to drug resistance. Life-threatening complications of upper respiratory tract infections are rare.

Patient satisfaction with care for acute bronchitis depends most on physician-patient communication rather than on antibiotic treatment. Physicians should be sure to explain the diagnosis and treatment of acute bronchitis. It may be helpful to refer to acute bronchitis as a
“chest cold”. The physician should also discuss realistic expectations about the clinical course.

Explain to the patient to expect to have a cough for 10-14 days after the visit. They need to know that antibiotics are probably not going to be beneficial and that treatment with antibiotics is associated with significant risks and side effects. If the patient can not sleep due to cough, antitussive therapy may be helpful.

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Management of Acute Bronchitis

Patient with cough and chest symptom consistent with acute bronchitis

Is the bronchitis complicated (hx of pulmonary disease, hx of smoking, etc.)?

- No
  - History and physical examination to rule out consolidation or other causes of cough
    - Acute bronchitis? → No → Treat cause of cough.
    - Yes → Treat with protussives, specific or nonspecific antitussives, or bronchodilators as symptoms dictate; discuss follow-up.

- Yes
  - History and physical examination; consider chest radiography, pulmonary function testing, peak flow measurement, sputum culture; consider antibiotic therapy

Symptoms persist for two-three weeks or more despite appropriate treatment of symptoms.*

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*-- After two weeks, 26 percent of patients with acute bronchitis are still coughing. Some studies recommend waiting 30 days before changing therapy.

**Figure 1.** Algorithm for the treatment of patients with acute bronchitis.
References


Chief Medical Officer
Medical Associates Clinic & Health Plans

President
Medical Associates Clinic

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