

ACUTE BRONCHITIS

Acute bronchitis is a CLINICAL DIAGNOSIS characterized by acute cough, with or without sputum production in the absence of signs indicating pneumonia or chronic lung disease.¹

ETIOLOGY

- ◆ Over 90% of cases of acute bronchitis are due to **viral** pathogens.¹
- ◆ Mycoplasma pneumonia, Chlamydia pneumonia and Bordetella pertussis are rare bacterial causes of acute bronchitis
- ◆ Testing for influenza, pertussis and COVID should be considered when clinical suspicion is high and treatment would impact outcomes.
- ◆ There is **no convincing evidence** to support the concept of "acute bacterial bronchitis," caused by pathogens such as *Strep. pneumoniae*, *Staph. aureus*, *H. influenzae*, *M. catarrhalis*, or other gram-negative bacilli in adults without airway instrumentation.²

Patient with acute bronchitis will experience a cough for 18 days on average.³

Cough is usually preceded by other common URI symptoms.

When to suspect Pertussis

- ◆ Initial presentation (1st week) may be indistinguishable from a viral URI
- ◆ Recent contact with confirmed case of pertussis
- ◆ Paroxysmal (multiple coughs in a single breath) cough with post-tussive emesis or syncope
- ◆ Prolonged coughing greater than 2-3 weeks (the cough of pertussis lasts 3 months)

Productive cough, even purulent, is common in acute bronchitis and does not correlate with bacterial infection.

RED FLAGS (consider further workup for pneumonia)⁴

- ◆ Fever greater than 100 degrees
- ◆ Tachypnea (>24 breaths/minute)
- ◆ Tachycardia (>100 beats/minute)
- ◆ Rusty or bloody sputum
- ◆ Dyspnea
- ◆ Exam finding consistent with a focal consolidation (egophony, focal crackles, fremitus)

Management

Recent guidelines published in May of 2020 did not recommend any treatment for acute bronchitis in immunocompetent patients⁵

Antibiotics have not shown to significantly impact the clinical course of acute bronchitis and are not indicated for the routine management of acute bronchitis.⁶

If Pertussis is suspected based on clinical presentation or history of recent exposure, then a macrolide (azithromycin) antibiotic should be prescribed for 5 days.

COVID-19 and Influenza testing should be considered as treatment options are available and infection control measure are appropriate.

OTC Cold Preparations

NSAIDs, decongestants and antihistamines are **generally ineffective** for the cough of acute bronchitis.¹

Cough medications

Expectorants (guaifenesin)

Relatively safe with some efficacy in decreasing the cough of acute bronchitis⁷

Antitussives: Provide modest symptomatic relief

- ◆ **Benzonatate (Tessalon perles)**
- ◆ **Dextromethorphan (OTC preparations)**
- ◆ **Codeine (not recommended for routine use)**

Beta-agonists

Albuterol may be effective in patients with evidence of airway obstruction (wheezing, prolonged expiratory phase)⁸

References

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