



Management of Bronchitis in Children and Adolescents

Clinical Practice Guideline

MedStar Health

Antibiotic Stewardship

“These guidelines are provided to assist physicians and other clinicians in making decisions regarding the care of their patients. They are not a substitute for individual judgment brought to each clinical situation by the patient’s primary care provider in collaboration with the patient. As with all clinical reference resources, they reflect the best understanding of the science of medicine at the time of publication but should be used with the clear understanding that continued research may result in new knowledge and recommendations.”

Antibiotics should not be used for viral respiratory illnesses, including bronchitis, bronchiolitis, pharyngitis, and sinusitis.

<https://www.choosingwisely.org/clinician-lists/american-academy-pediatrics-antibiotics-for-children-with-viral-respiratory-illness/>

DIAGNOSTIC EVALUATION AND TREATMENT FOR ACUTE BRONCHITIS:

1. Signs and Symptoms of Typical Acute Bronchitis
 - Cough
 - Production of mucus (sputum) if present, can be clear, white, yellowish-gray or green in color. Rarely, mucus may be streaked with blood.
 - Fatigue
 - Shortness of breath
 - Slight fever and chills
 - Chest discomfort
2. Most common causes of bronchitis in immunocompetent children and adolescents are **viral in origin** and **antibiotics are not indicated**.
3. Consider specific causes if indicated. Appropriate diagnostic testing and treatment should be utilized as clinically indicated.
 - Influenza
 - Pertussis
 - Atypical Mycobacteria
 - COVID-19
4. Consider alternative diagnoses such as pneumonia, asthma, aspiration when symptoms such as the following are present:
 - Fever (temperature greater than 100.3 F or 38.0 C)
 - Tachycardia (parameters vary by age)
 - Tachypnea (parameters vary by age)
 - Hypoxemia (pulse oxygenation < 95%)
 - Cyanosis
 - Asymmetrical lung sounds (rales, egophony, fremitus)
 - Wheezing
 - Cough lasting 3 weeks or longer

5. In high-risk immunocompromised patients (i.e. HIV, Cancer, Sickle Cell, Cystic Fibrosis) consider other sources, diagnostic tests, and treatment.
6. Management of acute bronchitis is supportive care.
 1. Increase hydration.
 2. Nasal congestion can be treated with nasal saline and external nasal suction.
 3. Use cool mist humidifier for congestion and cough.
 4. Children over 1 year can have honey to soothe sore throat and cough.
 5. OTC cold and cough medicines have limited effectiveness in research studies and have potential safety concerns.
 6. Albuterol PRN may be appropriate for wheezing and asthma symptoms.
 7. Systemic steroids are not indicated for acute bronchitis.

PREVENTING AND TREATING BRONCHITIS (CDC PDF PRINTABLE HANDOUT):

<https://www.cdc.gov/antibiotic-use/bronchitis.html>

DEFINITIONS:

Antimicrobial stewardship refers to coordinated interventions designed to improve and measure the appropriate use of antimicrobials by promoting the selection of the optimal antimicrobial drug regimen, dose, duration of therapy, and route of administration. Antimicrobial stewards seek to achieve optimal clinical outcomes related to antimicrobial use, minimize toxicity and other adverse events, reduce the costs of health care for infections, and limit the selection for antimicrobial resistant strains. - See more at:

http://www.idsociety.org/stewardship_policy/#sthash.SM1baBaC.dpuf

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<http://www.apic.org/Professional-Practice/Practice-Resources/Antimicrobial-Stewardship>

-Centers for Disease Control (CDC), 2021. Overview and evidence to support stewardship. Retrieved from

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-Kinkade, S. Long, N. "Acute Bronchitis", *Am Fam Physician*. 2016; Oct 1;94(7):560-565

<https://www.aafp.org/afp/2016/1001/p560.html>

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