# AHRQ Safety Program for Telemedicine: Improving Antibiotic Use

## **Acute Bronchitis or Acute Cough – Clinician Guide**

#### **Diagnosis**

- Acute bronchitis, or an acute cough, is generally caused by viruses.
- Lasts for up to 2-3 weeks.
- Presents with symptoms such as a cough that may persist; other symptoms may include rhinorrhea, sneezing, sinus congestion, sore throat, low-grade fever, headache, and fatigue.
- Occurs throughout the year.
- Sputum production does not distinguish a bacterial infection from a viral infection.
- History and physical examination should focus on identifying alternative diagnoses:
  - o Potential bacterial diagnoses: bacterial pneumonia, etc.
  - Exacerbations of chronic medical conditions such as asthma, heart failure, chronic obstructive pulmonary disease, etc.
  - o Recurrent or chronic symptoms: allergic or seasonal rhinitis.

#### Treatment<sup>1,2</sup>

- Antibiotics are not indicated for the treatment of acute bronchitis, or an acute cough.
- Patients should be advised to rest and stay hydrated.
- Consider the following treatments for symptom management:<sup>3-5</sup>
  - Analgesics (acetaminophen and nonsteroidal anti-inflammatory drugs): Help reduce fever and pain in adults and children.
  - Dextromethorphan is a cough suppressant that may help, although there is limited data on its effectiveness.
    - Avoid in children under six, and is not advised in children ages 6-12.
  - Guaifenesin and combination antihistamine-decongestants may help with symptoms.
    - Avoid in children under six, and is not advised in children ages 6-12.
  - Honey can reduce cough in adults and children over the age of one year.<sup>6,7</sup>
    - Do not provide honey to infants under the age of one year.
  - Benzonatate may help, but do not prescribe to children under the age of 10.
  - o Do not prescribe codeine to children under the age of 18.
  - Albuterol may help symptoms from acute cough if there is wheezing.<sup>8</sup>

#### <u>Prevention</u>

- Viruses are spread by contact and droplets.
- To avoid transmission to others, encourage frequent hand washing, cough and sneeze into a tissue or into the arm rather than the hand, wear a face mask, and avoid touching the face.

### **Followup**

- The cough frequently lasts up to 3 weeks and sometimes even longer.<sup>9</sup>
- Patients should come in for an in-person evaluation if they do not feel better after 3 weeks, have a fever of over 102 degrees Fahrenheit, or develop a rash.
- Patients should go to the emergency department if they develop a high fever (above 102°F), trouble breathing, trouble swallowing, shortness of breath, confusion, a bad headache, or severe weakness.





#### References

- Ntim, GJ. American Academy of Pediatrics: Common Cold. 2023. <a href="https://doi.org/10.1542/aap.ppcqr.396147">https://doi.org/10.1542/aap.ppcqr.396147</a>.
  Accessed December 20, 2024.
- Use Caution When Giving Cough and cold Products to Kids. U.S. Food & Drug Administration. February 2018. <a href="https://www.fds.gov/drugs/special-features/use-caution-when-giving-cough-and-cold-products-kids">https://www.fds.gov/drugs/special-features/use-caution-when-giving-cough-and-cold-products-kids</a>.
   Accessed December 20, 2024.
- 3. Green JL, Wang GS, Reynolds KM, et al. Safety profile of cough and cold medication use in pediatrics. Pediatrics. 2017 Jun;139(6):e20163070. PMID: 28562262.
- 4. Drugs for cough. Med Lett Drugs Ther. 2018 Dec 17;60(1562):206-8. PMID: 30625123.
- 5. Smith SM, Schroeder K, Fahey T. Over-the-counter (OTC) medications for acute cough in children and adults in community settings. Cochrane Database Syst Rev. 2014 Nov 24;11:CD001831. PMID: 25420096.
- 6. Cohen HA, Rozen J, Kristal H, et al. Effect of honey on nocturnal cough and sleep quality: a double-blind, randomized, placebo-controlled study. Pediatrics. 2012 Seo; 130(3): 465-71. PMID: 22869830.
- 7. Oduwole O, Udoh EE, Oyo-Ita A, et al. Honey for acute cough in children. Cochrane Database Syst Rev. 2018 Apr 10;4:CD007094. PMID: 29633783.
- 8. Becker LA, Hom J, Villasis-Keever M, et al. Beta2-agonists for acute cough or a clinical diagnosis of acute bronchitis. Cochrane Database Syst Rev. 2015 Sep 3;9:CD001726. PMID: 26333656.
- 9. Arrol B, Kenealt T. Antibiotics for the common cold and acute purulent rhinitis. Cochrane Database Syst Rev. 2005;(3): CD000247. PMID: 16034850.