

Practice Guidelines

Chronic Cough After Acute Viral Bronchiolitis: Suggestions from the ACCP

Key Points for Practice

- Children with chronic cough after acute viral bronchiolitis should be evaluated for cough pointers that reveal an underlying cause.
- Asthma medications should not be used unless asthma symptoms are present.
- Inhaled hypertonic saline should not be used for chronic cough after viral bronchiolitis.

From the *AFP* Editors

Bronchiolitis is a common condition in young children that is characterized by tachypnea, wheeze, and crepitations after an acute upper respiratory illness (e.g., respiratory syncytial virus, adenovirus, influenza, or rhinovirus infection). Although bronchiolitis is typically a self-limiting condition, some children develop chronic cough after the acute episode has resolved.

To address the high prevalence of bronchiolitis, the effects of chronic cough on patients' quality of life, and adverse effects from inappropriate use of medications, an expert panel from the American College of Chest Physicians (ACCP) performed systematic reviews to develop several consensus-based suggestions. The panel used the population, intervention, comparison, and outcome (PICO) framework to address the following key questions:

- Are antibiotics effective in improving the resolution of cough in children with chronic cough (longer than four weeks' duration) after acute

viral bronchiolitis? If so, which antibiotics and for how long?

- Are asthma medications (e.g., inhaled and oral corticosteroids, beta₂ agonists, montelukast [Singulair]) effective in improving the resolution of cough in children with chronic cough after acute viral bronchiolitis? If so, which ones and for how long?

- Are inhaled osmotic agents (e.g., hypertonic saline) effective in improving the resolution of cough in children with chronic cough after acute viral bronchiolitis?

Although the panel found several studies and systematic reviews on the effectiveness of the three types of interventions, no data were relevant to the key questions. Therefore, no recommendations could be made, only the following suggestions:

- In children with chronic cough after acute viral bronchiolitis, the panel suggests that the cough be managed according to the CHEST pediatric chronic cough guidelines. This includes evaluation for cough pointers to identify a specific cause (e.g., coughing with feeding, digital clubbing) and treating children who have a wet/productive cough with no specific etiology with a two-week course of antibiotics targeted to common respiratory bacteria (*Streptococcus pneumoniae*, *Haemophilus influenzae*, *Moraxella catarrhalis*) based on local sensitivities.

- In children with chronic cough after acute viral bronchiolitis, the panel suggests that asthma medications not be used unless other evidence

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This series is coordinated by Sumi Sexton, MD, Editor-in-Chief.

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of asthma (e.g., recurrent wheeze, dyspnea) is present.

- In children with chronic cough after acute viral bronchiolitis, the panel suggests that inhaled osmotic agents not be used.

Guideline source: American College of Chest Physicians

Evidence rating system used? No

Systematic literature search described? Yes

Guideline developed by participants without relevant financial ties to industry? No

Recommendations based on patient-oriented outcomes? Yes

Published source: *Chest*. August 2018;154(2):378-382

Available at: <https://www.sciencedirect.com/science/article/pii/S0012369218306329?via%3Dihub>

Carrie Armstrong

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Editor's Note: In the absence of evidence to answer key clinical questions on postbronchiolitis chronic cough, the expert panel recommends that physicians follow other CHEST chronic cough guidelines for children. The guideline on etiologies of chronic cough in pediatric cohorts found moderate-quality evidence that the underlying cause of chronic cough is different in children vs. adults and that age and clinical setting are important factors.¹ The guideline on management pathways for chronic cough in children recommends using algorithms based on a suspected etiology rather than an empiric approach.² The guideline on chronic wet cough and protracted bacterial bronchitis recommends antibiotics in children when the history does not reveal another specific cause for the cough.³—Sumi Sexton, MD, Editor-in-Chief

References

1. Chang AB, Oppenheimer JJ, Weinberger MM, et al. Etiologies of chronic cough in pediatric cohorts: CHEST guideline and expert panel report. *Chest*. 2017;152(3):607-617.
2. Chang AB, Oppenheimer JJ, Weinberger MM, et al. Use of management pathways or algorithms in children with chronic cough: CHEST guideline and expert panel report. *Chest*. 2017;151(4):875-883.
3. Chang AB, Oppenheimer JJ, Weinberger MM, et al. Management of children with chronic wet cough and protracted bacterial bronchitis: CHEST guideline and expert panel report. *Chest*. 2017;151(4):884-890. ■

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