AAP Section on Emergency Medicine Committee on Quality Transformation
Clinical Algorithm for Bronchiolitis in the Emergency Department Setting

Bronchiolitis Content Expert Team

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Note

This algorithm does not represent AAP policy and was not reviewed or approved by the AAP Board of Directors.
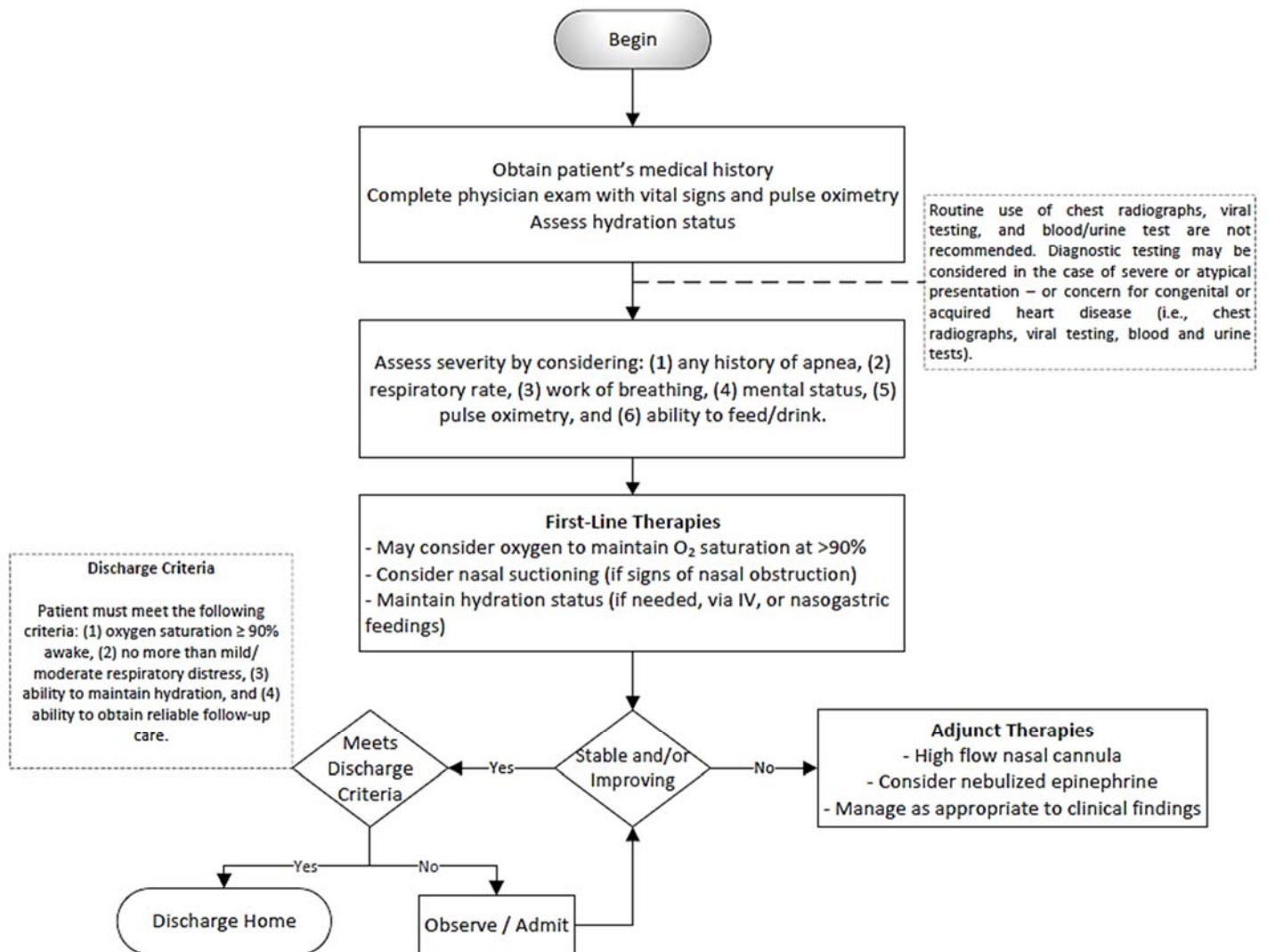
Overview

The American Academy of Pediatrics (AAP) Section on Emergency Medicine (SOEM) bronchiolitis algorithm is designed as an easy-to-follow tool to help clinicians care for infants with bronchiolitis in the acute care setting. This algorithm incorporates AAP recommendations for bronchiolitis with the goal of limiting unnecessary testing and therapies in this self-limited illness, while also mentioning newer therapies that sometimes need to be considered in severe and/or undifferentiated presentation in the emergency department (ED). The algorithm also assists the practitioner with disposition from the ED.

Reference Material – AAP Bronchiolitis Guideline

http://pediatrics.aappublications.org/content/134/5/e1474

Scope   Does not apply if severe or atypical presentation.

Inclusion Criteria   Children, 1-12 months of age, presenting with symptoms and signs suggestive of a clinical diagnosis of bronchiolitis, such as upper respiratory tract infection such as rhinitis and coughing, progressing to lower respiratory symptoms including wheezing, crackles, and/or tachypnea that may result in difficulty breathing and/or difficulty feeding.

Exclusion Criteria   Full-term infants that are less than 28 days old or premature infants that are less than 48 weeks post-conception. Patients with hemodynamically significant cardiac or significant pulmonary disease (such as bronchopulmonary dysplasia or asthma) or other major chronic conditions (such as immunodeficiency and neuromuscular disease).

Begin

Obtain patient's medical history
Complete physician exam with vital signs and pulse oximetry
Assess hydration status

Routine use of chest radiographs, viral testing, and blood/urine test are not recommended. Diagnostic testing may be considered in the case of severe or atypical presentation – or concern for congenital or acquired heart disease (i.e., chest radiographs, viral testing, blood and urine tests).

Assess severity by considering: (1) any history of apnea, (2) respiratory rate, (3) work of breathing, (4) mental status, (5) pulse oximetry, and (6) ability to feed/drink.

First-Line Therapies
- May consider oxygen to maintain O_2 saturation at >90%
- Consider nasal suctioning (if signs of nasal obstruction)
- Maintain hydration status (if needed, via IV, or nasogastric feedings)

Discharge Criteria

Patient must meet the following criteria: (1) oxygen saturation ≥ 90% awake, (2) no more than mild/moderate respiratory distress, (3) ability to maintain hydration, and (4) ability to obtain reliable follow-up care.

Meets Discharge Criteria

Stable and/or Improving

Adjunct Therapies
- High flow nasal cannula
- Consider nebulized epinephrine
- Manage as appropriate to clinical findings

Discharge Home

Observe / Admit