Pediatric Bronchiolitis Pathway in the Emergency Department

The following information is intended as a guideline for the acute management of children with bronchiolitis. Management of your patient may require a more individualized approach.

**Suspected bronchiolitis: Otherwise healthy child** <24 months of age with prodrome of viral URI progressing to lower respiratory involvement including:
- Increased work of breathing
- Tachypnea
- Crackles

Consider Pediatric Asthma Exacerbation Pathway for:
- Age ≥24 months
- History of recurrent wheezing/prior steroid use
- Strong response to albuterol and/or steroid controller use

### Respiratory Assessment
(See opposite page)

- Education on clearance of nasal secretions by bulb suction
- Antipyretics and supplemental oxygen as needed
- Frequent reassessments

#### Mild
- Consider bulb suction

#### Moderate
- Bulb suction
- Observe 1-2 hours on pulse oximetry, then decide to admit or discharge

#### Severe
- Bulb or wall suction
- NPO
- Place IV
- Consider NS bolus
- Initiate maintenance IV fluids
- If no improvement after suctioning strongly consider intubating

**High Flow Nasal Cannula oxygen (HFNC)**

<table>
<thead>
<tr>
<th>Age</th>
<th>Initial FiO2</th>
<th>Max Flow*</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;90d</td>
<td>0.50</td>
<td>6 lpm</td>
</tr>
<tr>
<td>91d-2y</td>
<td></td>
<td>8 lpm</td>
</tr>
<tr>
<td>&gt;2y</td>
<td></td>
<td>10 lpm</td>
</tr>
</tbody>
</table>

*Max flow determined by circuit size not age

### Discharge Criteria
- Sats ≥90% when awake;
- ≥ 88% when asleep
- Adequate PO intake
- Mild/moderate work of breathing
- Reliable caretaker
- Able to obtain follow-up care

### Admission Criteria
- Need for supplemental oxygen
- Need for IV rehydration
- At risk for progression
  - Significant chronic disease
  - Respiratory rate >60-70
- Consider in very young infants (<3 months of age) presenting with significant symptoms early in disease course
- If on HFNC admit to PICU
- Attending discretion

### Other interventions for specific indications only

<table>
<thead>
<tr>
<th>Supplemental oxygen</th>
<th>Supplemental fluids</th>
<th>Albuterol</th>
<th>Racemic epinephrine</th>
<th>Antibiotics</th>
<th>Supplemental saline</th>
<th>Hypertonic saline</th>
<th>Not routinely recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saturation persistently &lt; 90% when awake or &lt; 88% while asleep after suctioning and repositioning</td>
<td>Inadequate PO intake, Consider NG feeds</td>
<td>Not routinely recommended, Consider if history of recurrent wheezing, age &gt; 12 months</td>
<td>Increasing severe respiratory distress</td>
<td>Evidence of bacterial superinfection (not common)</td>
<td>Systemic or inhaled steroids</td>
<td>Chest X-ray</td>
<td>Not routinely recommended, Consider testing for flu if high local flu activity and/or clinical suspicion of flu</td>
</tr>
<tr>
<td>Not routinely recommended, Consider if – Atypical clinical course – New fever late in disease process – Severe disease</td>
<td>Viral respiratory panel, including RSV testing</td>
<td>Not routinely recommended, Consider testing for flu if high local flu activity and/or clinical suspicion of flu</td>
<td></td>
<td>Pertussis PCR</td>
<td></td>
<td></td>
<td>Not routinely recommended, Consider if – Significant pertussis activity in the community – Known exposure – History of apnea – Unimmunized</td>
</tr>
</tbody>
</table>

### Other interventions for specific indications only

- Not routinely recommended
## Bronchiolitis Severity Assessment

### Highest rating in any category dictates patient's assessment

**Children at risk for severe disease:**
- Prematurity
- Cardiac disease
- Pulmonary disease
- Neuromuscular disease

<table>
<thead>
<tr>
<th>Element</th>
<th>Mild</th>
<th>Moderate</th>
<th>Severe</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Respiratory Rate</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;3 months</td>
<td>30-60</td>
<td>61-80</td>
<td>&gt;80</td>
</tr>
<tr>
<td>3-12 months</td>
<td>25-50</td>
<td>51-70</td>
<td>&gt;70</td>
</tr>
<tr>
<td>1-2 years</td>
<td>20-40</td>
<td>41-60</td>
<td>&gt;60</td>
</tr>
<tr>
<td><strong>Work of Breathing</strong></td>
<td>Normal or mild increase</td>
<td>Intercostal retractions</td>
<td>Nasal flaring, grunting, head bobbing</td>
</tr>
<tr>
<td><strong>Mental Status</strong></td>
<td>Baseline</td>
<td>Fussy</td>
<td>Lethargic or inconsolable</td>
</tr>
<tr>
<td><strong>Breath Sounds</strong></td>
<td>Clear</td>
<td>Crackles, wheezing</td>
<td>Diminished breath sounds or significant crackles, wheezing</td>
</tr>
</tbody>
</table>