Bronchiolitis – Emergency management in children – Flowchart

Child < 12 months* presents to ED with suspected bronchiolitis

Bronchiolitis diagnosis (Box B#)
Assess severity (Box C#)

Mild

- Small frequent feeds
- Consider nasal saline drops prior to feeding

Responding to treatment?
- Yes
- Identify risk factors for severe disease:
  - gestational age < 37 weeks
  - chronological age < 10 weeks
  - chronic lung disease
  - congenital heart disease
  - chronic neurological conditions
  - Indigenous ethnicity
  - failure to thrive
  - Trisomy 21
  - post-natal exposure to cigarette smoke
  - breast fed for < 2 months
- Risk factor/s present?
  - Yes
- Consider discharge with advice
  - No
- Consider referral to inpatient service

Moderate

- Nasal saline drops +/- suctioning
- Oxygen +/- HFNC to maintain SpO2 ≥ 92%
- Consider fluids via NG (if intake less than 50% for 12 hours)

Responding to treatment?
- Yes
- No

Severe

- HFNC therapy
- Oxygen via HFNC to maintain SpO2 ≥ 92%
- Fluids via NG or IV

Responding to treatment?
- Yes
- No

Toxic features?
- Yes
- Manage as per Sepsis Guideline
- No
- Consider differential or dual diagnoses (Box A#)

Aged < 3 months?
- Yes
- Manage as per Fever Guideline for infants with fever ≥ 38°C and:
  - age < 28 days
  - age 29 days - 3 months with atypical respiratory symptoms
- No

Refer to Paediatric Critical Care

Identify risk factors for severe disease:
- gestational age < 37 weeks
- chronological age < 10 weeks
- chronic lung disease
- congenital heart disease
- chronic neurological conditions
- Indigenous ethnicity
- failure to thrive
- Trisomy 21
- post-natal exposure to cigarette smoke
- breast fed for < 2 months

Risk factor/s present?
- Yes
- Consider seeking senior emergency/paediatric advice as per local practices
- No
- Consider seeking senior emergency/paediatric advice as per local practices

*Refer to the Pre-school wheeze guideline for children aged 1-5 years

# See next page for Box A, B and C

Consider seeking senior emergency/paediatric advice as per local practices

Seek urgent paediatric critical care advice (onsite or via Retrieval Services Queensland (RSQ) on 1300 799 127)

Seek senior emergency/paediatric advice as per local practices. Consider contacting paediatric critical care

CHQ-GDL-60012-Appendix 1 V2.0
Bronchiolitis – Emergency management in children

**BOX A: Less common causes of respiratory distress in infants**

<table>
<thead>
<tr>
<th>Respiratory</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>bacterial pneumonia, including pertussis</td>
<td>congestive cardiac failure</td>
</tr>
<tr>
<td>aspiration of milk/formula or foreign body</td>
<td>sepsis</td>
</tr>
<tr>
<td>tracheo/bronchomalacia</td>
<td>intrathoracic mass</td>
</tr>
<tr>
<td>cystic fibrosis</td>
<td>allergic reaction</td>
</tr>
</tbody>
</table>

Consider concurrent or alternative diagnosis of serious bacterial illness in child with high fevers.

**ALERT –** Consider cardiac disease in infants with the following:
- no precipitating viral illness
- hypoxia out of proportion to severity of respiratory disease
- +/- abnormal or unequal peripheral pulses, cardiac murmur or hepatomegaly

Keep in mind decompensation can be triggered by an intercurrent illness.

**BOX B: Bronchiolitis diagnosis**

Requires a history of an upper respiratory tract infection followed by onset of respiratory distress with fever and ≥ 1 of the following:
- cough
- tachypnoea
- retractions
- diffuse crackles or wheeze on auscultation

**BOX C: Assessment of severity of acute bronchiolitis**

<table>
<thead>
<tr>
<th></th>
<th>Mild</th>
<th>Moderate</th>
<th>Severe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behaviour</td>
<td>Normal</td>
<td>Some/intermittent irritability</td>
<td>Increasing irritability and/or lethargy, fatigue</td>
</tr>
<tr>
<td>Respiratory rate</td>
<td>Normal - mild tachypnoea</td>
<td>Increased</td>
<td>Marked increase or decrease</td>
</tr>
<tr>
<td>Use of accessory muscles</td>
<td>Nil to mild chest wall retraction</td>
<td>Moderate chest wall retractions Tracheal tug Nasal flaring</td>
<td>Marked chest wall retractions Marked tracheal tug Marked nasal flaring</td>
</tr>
<tr>
<td>Oxygen saturations in room air</td>
<td>SpO2 &gt; 92%</td>
<td>SpO2 90-92%</td>
<td>SpO2 &lt; 90% May not be corrected by O2</td>
</tr>
<tr>
<td>Apnoeic episodes</td>
<td>None</td>
<td>May have brief apnoea</td>
<td>May have increasingly frequent or prolonged apnoea</td>
</tr>
<tr>
<td>Feeding</td>
<td>Normal</td>
<td>May have difficulty with feeding or reduced feeding</td>
<td>Reluctant or unable to feed</td>
</tr>
</tbody>
</table>

For more information refer to CHQ-GDL-60012 - Bronchiolitis – Emergency management in children