# Infants and Children – Acute Management of Bronchiolitis

This PCP applies to:

1. Adults
   - No
2. Children up to 16 years
   - Yes
3. Neonates – less than 29 days
   - Yes

**Target audience**

Clinicians in ED where infants and children present who cough, wheeze and shortness of breath.

**Description**

Provides evidence based practice guidelines for the treatment of infants with bronchiolitis.

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## Keywords

- Infants, acute management, emergency department

## Related Legislation, Australian Standard, NSW Ministry of Health Policy Directive or Guideline, National Safety and Quality Health Service Standard (NSQHSS) and/or other, HNE Health Document, Professional Guideline, Code of Practice or Ethics:

- PD2012_004 Infants and Children with Bronchiolitis

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## Tier 2 Director responsible for Policy to which the PCP relates. PCP authorised by

Professor Trish Davidson, Director Children, Young People and Families

## PCP contact person and Network or Service etc. responsible for the PCP

Rhonda Winskil, Paediatric Rural Outreach CNC, HNE LHD/Northern Child Health Network.

## Contact details

Mobile: 0438 809 688

Date authorised

March 2015

This document contains advice on therapeutics

- No

## Issue date

24 February 2015

## Review date

24 February 2018

## TRIM number

15/43-2-10
**Infants and Children - Acute Management of Bronchiolitis PD2012_004:PCP1**


**RISK STATEMENT**

This PCP has been developed to provide user friendly, current clinical practice guidelines for clinical staff in the assessment, management and discharge planning of infants and children with bronchiolitis. Non-compliance to this PCP may result in infants with bronchiolitis receiving clinical care that is not based on best practice guidelines.

**Risk Category:** Clinical Care & Patient Safety

<table>
<thead>
<tr>
<th>Acronym or Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSL</td>
<td>Blood sugar level</td>
</tr>
<tr>
<td>CXR</td>
<td>Chest X-Ray</td>
</tr>
<tr>
<td>CPAP</td>
<td>Continuous Positive Airway Pressure</td>
</tr>
<tr>
<td>IV</td>
<td>Intravenous</td>
</tr>
<tr>
<td>NBM</td>
<td>Nil by mouth</td>
</tr>
<tr>
<td>NETS</td>
<td>NSW Newborn &amp; Paediatric Emergency Transport Service</td>
</tr>
<tr>
<td>NG</td>
<td>Naso-gastric tube</td>
</tr>
<tr>
<td>PICU</td>
<td>Paediatric Intensive Care Unit</td>
</tr>
</tbody>
</table>

**PROCEDURE**

Compliance with this PCP is mandatory.

**IMPLEMENTATION AND MONITORING COMPLIANCE**

This PCP establishes evidenced based best practice for HNE LHD consistent with PD2012_004 which requires mandatory compliance. The PCP will be implemented in all HNE LHD Emergency Departments and compliance monitored with IIMS.

**FEEDBACK**

Any feedback on this document should be sent to the Contact Officer listed on the front page.
### Assessment and Initial Management

Reconsider diagnosis if the child is >1 year, looks “unwell”, has a high fever or responds poorly to treatment.

#### Initial Severity Assessment

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Mild</th>
<th>Moderate</th>
<th>Severe and Life Threatening</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Well</td>
<td>Mildly Unwell</td>
<td>Unwell</td>
</tr>
<tr>
<td>Respiratory Rate*</td>
<td>Mild Tachypnoea</td>
<td>Moderate Tachypnoea</td>
<td>Apnoeas</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Severe Tachypnoea</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Greater than 70</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Bradypnoea less than 30</td>
</tr>
<tr>
<td>Work of Breathing</td>
<td>Normal</td>
<td>Mild to Moderate</td>
<td>Moderate to Severe Grunting</td>
</tr>
<tr>
<td>Cyanosis</td>
<td>No Cyanosis</td>
<td>No Cyanosis</td>
<td>May be Cyanosed or Pale</td>
</tr>
<tr>
<td>Oxygen Saturation</td>
<td>Above 95% in Air</td>
<td>90 - 95% in Air</td>
<td>Less than 90% in Air</td>
</tr>
<tr>
<td>Oxygen Requirement</td>
<td></td>
<td></td>
<td>Less than 92% in O₂</td>
</tr>
<tr>
<td>Heart Rate</td>
<td>Normal</td>
<td>Mild Tachycardia</td>
<td>Marked Tachycardia 180</td>
</tr>
<tr>
<td>Feeding</td>
<td>Normal or slightly Decreased</td>
<td>Difficulty feeding but may be able to take more than 50% of normal feed</td>
<td>Difficulty feeding taking less than 50% of normal feed</td>
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<td></td>
<td></td>
<td></td>
<td>Contact Paediatrician</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Get senior help then call NETS 1300 36 2500</td>
</tr>
</tbody>
</table>

#### TREATMENT

- **Oxygen**
  - No
  - Give O₂ to maintain saturation at or above 95% and/or to improve work of breathing
  - Maintain oxygen saturation at greater than 95%
  - Ensure high inspired oxygen via high flow delivery device if required

- **Hydration**
  - Recommend smaller more frequent feeds if required
  - Smaller more frequent feeds
  - Consider NG feeds
  - IV* fluids and NBM

- **Investigations**
  - Nil required
  - Nil required
  - Consider – CXR and Blood Gas / BSL

- **Observation & Review**
  - Hourly
  - Continuous SaO₂ monitoring
  - Minimum hourly observation
  - Continuous cardio respiratory and SaO₂ monitoring – Constant observation

- **No or Poor response to Treatment**
  - Check diagnosis
  - Escalate treatment
  - Get Senior Help
  - Consult PICU via NETS
  - Consider CPAP
  - May need intubation

- **Disposition**
  - Likely to go home
  - Likely to admit
  - Decision around hospitalisation of infants with SaO₂ between 92% & 95% should be supported by clinical assessment, phase of the illness & social & geographical factors
  - Transfer to an appropriate paediatric unit via NETS
  - If in a children's hospital may need PICU

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*If IV fluids are clinically indicated discuss IV fluid rate/fluid type with Paediatrician/Senior Emergency Physician. BEWARE: Fluid overload, pulmonary oedema, hypoglycaemia.

* For a single reported apnoea before presentation admit for observation and treat as moderate.

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**FACT SHEET:** See [www.kaleidoscope.org.au](http://www.kaleidoscope.org.au)