Bronchiolitis – The Quick Guide

This is a clinical diagnosis

Bronchiolitis is a viral illness predominately affecting children <12months but may affect those 12 – 24 months. History is of breathing difficulty, cough and poor feeding. Examination reveals wheeze with or without crackles. Children who present with a fever greater than 39 °C should have a careful evaluation to exclude other diagnoses before a diagnosis of bronchiolitis is made.

Assessment of Severity of Disease

Mild	Moderate	Severe
• Respiratory rate normal to mildly increased • Nil to mild chest wall retraction, • no supplemental oxygen requirement, • O_2 saturations > 95% • Normal feeding	• Respiratory rate increased • Moderate respiratory distress, tracheal tug, moderate chest wall retraction, • O_2 saturations 90-95%. • Feeding 50-75% of feeds or above	• Markedly increased respiratory rate • Marked chest wall retraction, nasal flare, grunting • Apnoeic episodes • O_2 saturations < 90% • Hypoxaemia – may not be corrected by oxygen. • Feeding < 50% of normal *Watch for the tiring child with frequent apnoeas – they may need ICU assessment*

In addition children

- born at <36 weeks gestation,
- with congenital heart disease,
- with chronic respiratory disease,
- with immunodeficiency
- children less than 12 weeks of age

will require special consideration and should be discussed with a senior doctor

Initial Treatment

Mild	Moderate	Severe
• *Investigations* – no routine investigations are required • *Medications* – there are no proven medications for bronchiolitis • *Oxygen* – these children do not need supplemental oxygen therapy • *Monitoring* – these children do not require monitoring	• *Investigations* – no routine investigations are required • NPA should be performed to cohort • *Medications* – there are no proven medications for bronchiolitis. • *Oxygen* – commence supplemental when O_2 saturations consistently < 92% or if ↑ Resp Distress • *Monitoring* –Intermittent with other observations, continuous NOT required	• *Investigations* – no routine investigations are required • NPA should be performed to cohort • *Medications* – there are no proven medications for bronchiolitis but various options can be considered for a child requiring ICU care. • *Oxygen*, - should be given to maintain O_2 saturations ≥ 92% • *Monitoring* - may need apnoea monitor, continuous O_2 monitoring if in >50% or apnoeas or co-morbidities

• *Fluids* – maintain usual oral intake	• *Fluids* – Maintain usual oral intake if taking >50% of feeds. Watch for signs of respiratory distress, if present reduce frequency to 2hly or consider NG feeds • These patients usually require admission – consider for peripheral hospital transfer • Social circumstances need to be considered	• *Fluids* – most likely to require IV fluids –@ 2/3 maintenance. Can try NG feeds but cease if worsening respiratory distress. • Assess electrolytes before commencing IV fluids and then at least daily • Need admission, may need ICU review. *Watch for the tiring child with frequent apnoeas – they may need ICU assessment*

ICU REFERRAL:

- Severe respiratory distress,
- Frequent prolonged apnoeic episodes with desaturations, requiring >50% oxygen to maintain saturations ≥ 92%.
- Fatigue, altered conscious state

INFECTION CONTROL –

- Use alcohol gel if hands before and after contacting the patient, wash hands if visibly soiled.
- Gown and glove if likely to be contaminated with respiratory secretions.
- Use patient dedicated or disposable equipment where possible.

Discharge Criteria

Mild	Moderate	Severe
These patients can be discharged home with GP follow-up – give bronchiolitis information sheet and advise about worsening symptoms	Oxygen saturations of >92% in air (observe for at least 4 hours after cessation of 0_2) Taking >75% of usual fluids Review social circumstances	Oxygen saturations of >92% in air (observe for at least 4 hours after cessation of 0_2) Taking >75% of usual fluids Review social circumstances

HiTH provides home oxygen therapy for children with bronchiolitis based on the following criteria.

EXCLUSION CRITERIA	INCLUSION CRITERIA
1. Pre-exisiting cardiac, pulmonary (eg BPD), neuromuscular disorders 2. History of apnoea 3. Prematurity <34 weeks (may be less relevant if a child is >12 months) 4. Children requiring >12 hourly beta-2 agonists (children with asthma or bronchial hyper-responsiveness should not receive home oxygen)	1. >2 months of age (corrected gestation) 2. Clinical diagnosis of acute bronchiolitis or other lower respiratory tract infection (eg pneumonia) 3. Adequate feeding and hydration (>50% normal feed) 4. Oxygen saturation ≥92% on <1litre/minute nasal cannula oxygen 5. No signs of deteriorating respiratory status 6. Paediatrician agrees that child is fit for home oxygen therapy

SEE Checklist for Home Oxygen for more details