

Acute Bronchiolitis

BACKGROUND

- Acute bronchiolitis is a clinically diagnosed respiratory condition that most commonly affects infants under <2 years
- RSV is the causative organism in 75% of cases
- Seasonal: peak prevalence in November to March
- Incubation period is 2-8 days



PATTERN OF ILLNESS

- Rhinorrhoea/coryzal followed by persistent cough, increased work of breathing (WOB) and reduced feeding
- Severity peaks at 3-5 days and gradually resolves thereafter
- If fever >39°C, look for other causes before diagnosing bronchiolitis



RISK FACTORS FOR SEVERE DISEASE

- Age (<3 months)
- Prematurity <35 weeks
- Congenital heart disease
- Chronic lung disease of prematurity
- Immunodeficiency
- Down syndrome
- Severe hypotonia
- Parental smoking
- Breast feeding reduces risk



HISTORY

- Cough
- Breathing difficulty
- Audible wheeze
- Rhinorrhoea
- Fever
- Poor feeding
- Apnoea (in very young)

EXAMINATION

- Respiratory rate
- Use of accessory muscles
- Audible wheeze
- Pallor
- Head bobbing
- Apnoeic spells



INVESTIGATION

- Pulse oximetry
- NPA
- No role for routine CXR



TREATMENT

- Maintain hydration-may need NG feeds
- Oxygen via nasal cannula if saturations are < 90% or signs of respiratory distress
- Consider high flow nasal cannula (HFNC)
- **NO** role for hypertonic saline, antibiotics, steroids or inhalers



PROPHYLAXIS

- Palivizumab may be considered for use in qualifying infants <12 months old with:
 - Extreme prematurity
 - Acyanotic congenital heart disease
 - Congenital or acquired significant orphan lung disease
 - Immune deficiency

EVIDENCE BASE

The following treatments are **NOT** recommended for use in acute bronchiolitis

- Hypertonic saline is unlikely to change the clinical course
- Nebulised ribavirin
- Inhaled bronchodilators
- Nebulised epinephrine
- Inhaled/oral corticosteroids
- Chest physiotherapy

The following investigations are **NOT** routinely recommended in the management of acute bronchiolitis:

- Chest radiograph
- Laboratory investigations



WHEN TO DISCHARGE

Once the child is clinically stable with adequate oral intake and pulse oximetry >90% in over 6 weeks of age and >92 % in under 6 weeks of age.

It is important to avoid unnecessary hospital stay.

TAKE HOME MESSAGES

- Very common illness
- Treatment and management are supportive
- Most children have mild illness
- Wheeze/ cough may persist weeks post illness
- Respiratory Syncytial Virus (RSV) is highly infectious, precautions must be taken to prevent spread
- Smoking cessation advice should be offered where relevant

REFERENCES:

1. SIGN Guideline 91(2006):Bronchiolitis in Children.
2. Karampatsas, K; Kong, J; Cohen, J. (2019) Bronchiolitis: an update on

- management and prophylaxis. British Journal of Hospital Medicine, Vol. 80, No. 5.
3. NICE Guidelines (NG9) (2015, updated 2019) Bronchiolitis in Children: Diagnosis and Management