LIMITING DISEASE TRANSMISSION

D **Healthcare professionals should be educated about the epidemiology and control of RSV where appropriate.**

D

- **Staff should decontaminate their hands** *(with soap and water or alcohol gel)* **before and after caring for patients with viral respiratory symptoms.**
- **Gloves and and plastic aprons** *(or gowns)* **should be used for any direct contact with the patient or their immediate environment.**
- **Infected patients should be placed in single rooms. If adequate isolation facilities are unavailable, the allocation of patients into cohorts should be based on laboratory confirmation of infection in all inpatients less than two years of age with respiratory symptoms.**
- **Both service providers and staff should be aware of the risk that those with upper respiratory tract infections pose for high-risk infants.**
- **Local policies should restrict hospital visiting by those with symptoms of respiratory infections.**
- **There should be ongoing surveillance by control of infection staff to monitor compliance with infection control procedures.**

PROPHYLAXIS

☑ Routine use of palivizumab is not recommended.

☑ Palivizumab may be considered for use, on a case by case basis, in infants less than 12 months old with;

- extreme prematurity
- acyanotic congenital heart disease
- congenital or acquired significant orphan lung diseases
- immune deficiency.

☑ A local lead specialist should work with the appropriate clinical teams to identify those infants who may benefit from palivizumab.

ASSESSMENT AND REFERRAL

☑ Most infants with acute bronchiolitis will have mild disease and can be managed at home with primary care support. Parents/care givers should be given information on how to recognise any deterioration in their infant's condition and asked to bring them back for reassessment should this occur.

☑ Any of the following indications should prompt hospital referral/acute paediatric assessment in an infant with acute bronchiolitis or suspected acute bronchiolitis:

- poor feeding (< 50% of usual fluid intake in preceding 24 hours)
- lethargy
- history of apnoea
- respiratory rate > 70/min
- presence of nasal flaring and/or grunting
- severe chest wall recession
- cyanosis
- oxygen saturation ≤ 94%
- uncertainty regarding diagnosis.

Clinicians assessing the need to refer (or review in primary care) should also take account of whether the illness is at an early (and perhaps worsening) stage, or at a later (improving) stage.

☑ The threshold for hospital referral should be lowered in patients with significant comorbidities, those less than three months of age or infants born at less than 35 weeks gestation. Geographical factors/transport difficulties and social factors should also be taken into consideration.

This Quick Reference Guide provides a summary of the main recommendations in the SIGN guideline on **Bronchiolitis in children**

Recommendations are graded A B C D to indicate the strength of the supporting evidence.

Good practice points ☑ are provided where the guideline development group wishes to highlight specific aspects of accepted clinical practice.

Details of the evidence supporting these recommendations can be found in the full guideline, available on the SIGN website: **www.sign.ac.uk**

SIGN
Scottish Intercollegiate Guidelines Network

NHS Quality Improvement Scotland

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Bronchiolitis in children
Quick Reference Guide

November 2006

DIAGNOSIS

D **A diagnosis of acute bronchiolitis should be considered in an infant with nasal discharge and a wheezy cough, in the presence of fine inspiratory crackles and/or high pitched expiratory wheeze. Apnoea may be a presenting feature.**

☑ It is unusual for infants with bronchiolitis to appear "toxic". A "toxic" infant who is drowsy, lethargic or irritable, pale, mottled and tachycardic requires immediate treatment. Careful evaluation for other causes should be undertaken before making a diagnosis of bronchiolitis.

D **Increased respiratory rate should arouse suspicion of lower respiratory tract infection, particularly bronchiolitis or pneumonia.**

D **The absence of fever should not preclude the diagnosis of acute bronchiolitis.**

D **In the presence of high fever** *(axillary temperature ≥39°C)* **careful evaluation for other causes should be undertaken before making a diagnosis.**

D **Healthcare professionals should take seasonality into account when considering the possible diagnosis of acute bronchiolitis.**

RISK FACTORS FOR SEVERE DISEASE

C **Healthcare professionals should be aware of the increased need for hospital admission in infants born at less than 35 weeks gestation and in infants who have congenital heart disease or chronic lung disease of prematurity.**

C **Breast feeding reduces the risk of RSV-related hospitalisation and should be encouraged and supported.**

C **Healthcare professionals should inform families that parental smoking is associated with increased risk of RSV-related hospitalisation.**

INVESTIGATIONS

C **Pulse oximetry should be performed in every child who attends hospital with acute bronchiolitis.**

☑
- Infants with oxygen saturation ≤92% require inpatient care.
- Decision making around hospitalisation of infants with oxygen saturations between 92% and 94% should be supported by detailed clinical assessment, consideration of the phase of the illness and take into account social and geographical factors.
- Infants with oxygen saturations >94% in room air may be considered for discharge.

☑ Blood gas analysis (capillary or arterial) is not usually indicated in acute bronchiolitis. It may have a role in the assessment of infants with severe respiratory distress or who are tiring and may be entering respiratory failure. Knowledge of arterialised carbon dioxide values may guide referral to high dependency or intensive care.

D **Unless adequate isolation facilities are available, rapid testing for RSV is recommended in infants who require admission to hospital with acute bronchiolitis, in order to guide cohort arrangements.**

The following investigations are not routinely recommended but may be considered where there is diagnostic uncertainty or an atypical disease course

- C **Chest X-ray.**
- D **Full blood count.**
- D **Measurement of urea and electrolytes.**

C **Routine bacteriological testing** *(of blood and urine)* **is not indicated in infants with typical acute bronchiolitis. Bacteriological testing of urine should be considered in febrile infants less than 60 days old.**

INTENSIVE CARE CONSULTATION

☑ Indications for high dependency/intensive care unit consultation include:
- failure to maintain oxygen saturations of greater than 92% with increasing oxygen therapy
- deteriorating respiratory status with signs of increasing respiratory distress and/or exhaustion
- recurrent apnoea.

TREATMENTS

The following treatments are NOT recommended for infants with acute bronchiolitis:

- B **Nebulised ribavirin.**
- ☑ Antibiotic therapy
- B **Inhaled beta 2 agonist bronchodilators.**
- ☑ Nebulised ipratropium
- A **Nebulised epinephrine.**
- A **Inhaled corticosteroids**
- A **Oral systemic corticosteroids.**
- A **Chest physiotherapy using vibration and percussion.**

SUPPORTIVE THERAPIES

D **Nasal suction should be used to clear secretions in infants hospitalised with acute bronchiolitis who exhibit respiratory distress due to nasal blockage.**

D **Nasogastric feeding should be considered in infants with acute bronchiolitis who cannot maintain oral intake or hydration.**

D **Infants with oxygen saturation levels ≤92% or who have severe respiratory distress or cyanosis should receive supplemental oxygen by nasal cannulae or facemask.**

B **Parents and carers should be informed that, from the onset of acute bronchiolitis, around half of infants without comorbidity are asymptomatic by two weeks but that a small proportion will still have symptoms after four weeks.**

☑ Infants who have required supplemental oxygen therapy should have oxygen saturation monitoring for a period of 8-12 hours after therapy is discontinued (including a period of sleep) to ensure clinical stability before being considered for discharge.

☑ Infants with oxygen saturations >94% in room air may be considered for discharge.

☑ Hospitalised infants should not be discharged until they can maintain an adequate daily oral intake (>75% of usual intake).