

# Acute Bronchiolitis

## BACKGROUND

- Acute bronchiolitis a clinically diagnosed respiratory condition that most commonly affects infants aged 3-6 months
- RSV is the causative organism in 75% of cases
- Seasonal: peak prevalence in November to March
- Incubation period is 2-8 days
- Children may develop a post-bronchiolitis wheeze

## PATTERN OF ILLNESS

- Prior coryza for 2-3 days
- Severity peaks at 72 hours
- If fever  $>39^{\circ}\text{C}$ , look for other causes before diagnosing bronchiolitis

## RISK FACTORS FOR SEVERE DISEASE

- Age
- Prematurity  $<35$  weeks
- Congenital heart disease
- Chronic lung disease of prematurity
- Immunodeficiency
- Down syndrome
- Severe hypotonia
- Parental smoking
- ❖ **Breast feeding reduces risk**

## REFERENCES

- SIGN Guideline 91 November 2006:  
*Bronchiolitis in children*

## HISTORY

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

## EXAMINATION

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

## INVESTIGATIONS

- Pulse oximetry
- NPA for RSV
- CXR only if severe

## TREATMENT

- Maintain hydration – may need NG feeds
- Oxygen via nasal cannulae if oxygen saturation  $\leq 92\%$  or signs of respiratory distress
- Hypertonic saline
- **NO** role for antibiotics, steroids or inhalers

## TAKE HOME MESSAGES

- Very common illness
- Treatment is supportive
- Most children have mild disease that can be managed at home with primary care support
- Wheeze may persist for 4 weeks post-illness
- RSV is highly infectious, precautions must be taken to prevent spread

## REFERRAL

- Poor feeding ( $<50\%$  of usual fluid intake in 24 hours)
- Lethargy
- Apnoea
- Respiratory rate  $>70/\text{min}$
- Nasal flaring or grunting
- Severe chest wall recession
- Cyanosis
- Oxygen saturation  $\leq 94\%$
- Uncertainty regarding diagnosis

N.B. Lower threshold for referral in children with significant comorbidities, age less than 3 months or born before 35 weeks gestation.

## PROPHYLAXIS

- Palivalizumab may be considered for use in 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 (A):
  - ✓ Nebulised ribavirin
  - ✓ Inhaled bronchodilators
  - ✓ Nebulised epinephrine
  - ✓ Inhaled/oral corticosteroids
  - ✓ Chest physiotherapy