Bronchiolitis Primary Care Pathway

Clinical Assessment/Management Tool for children under 2 years old with suspected Bronchiolitis

Healthier Together

NHS Oxfordshire Clinical Commissioning Group

Child presenting with bronchiolitis: Assess and look for life threatening signs and symptoms, if any RED features call Paediatrician
IF REQUIRES IMMEDIATE REUSCITATION DIAL 999

Traffic light system of signs and symptoms for identifying severity of illness

	Green – low risk	Amber – intermediate risk	Red – high risk
Activity	• Alert • Normal	• Irritable • Not responding to social cues • Decreased activity • No Smile	• Unable to rouse • Wakes only with prolonged stimulation • No response to social cues • Weak, high pitched or continuous cry • Appears ill to a healthcare professional
Skin	• Capillary refill <2 secs • Normal colour skin, lips and tongue • Moist Mucous Membranes	• Capillary refill 2-3 secs • Pale/ mottled • Pallor colour reported by parent/ carer • Cool peripheries	• Capillary refill >3 secs • Pale/ Mottled/ Ashen blue • Cyanotic lips and tongue
Respiratory rate	• <12m: <50 breaths/ min • >12m: <40 breaths/ min • Mild respiratory distress	• <12m: 50-70 breaths/min • >12m: 40-60 breaths/min • Tachypnoea	• <12 m: >70 breaths/min • >12 m: >60 breaths/min • Significant respiratory distress
O2 sats in air*	• 95% or above	• 92-94%	• <92%
Chest recession	• None or mild	• Moderate	• Severe
Nasal flaring	• Absent	• May be present	• Present
Grunting	• Absent	• Absent	• Present
Apnoeas	• Absent	• Absent	• Yes- 10-15 secs or shorter if with sudden decrease in sats, bradycardia or central cyanosis
Feeding/hydration *check usual volume is not 'overfeeding.' Base calculations on normal requirements 150ml/kg/day 100ml/kg/day >6m	• Tolerating 75% of fluid • Occasional cough induced vomit	• 50-75% fluid intake over 3-4 feeds • Cough induced vomiting • Reduced urine output	• <50% fluid intake over 2-3 feeds • Cough induced vomiting frequently • Significantly reduced urine output

Paediatric Normal Values (adapted from APLS)

Age	Resp Rate	Heart Rate	Systolic BP
Neonate <4w	40-60	120-160	>60
Infant <1 y	30-40	110-160	70-90
Toddler 1-2 yrs	25-35	100-150	75-95
2-5 yrs	25-30	95-140	85-100

Children at increased risk of hospital admission

- Pre-existing lung disease
- Haemodynamically significant congential heart disease
- Age <12 weeks
- Immunocompromised
- Premature birth particularly <32 weeks
- Neuromuscular disorders

If all green features and no amber or red

- Send Home
- Give appropriate guidance and safety net advice
- Give bronchiolitis Advice Sheet
- Explain cough may last 4 weeks
- *If green plus risk factors for severe disease* (see box on left) consider referral to CCN for Hospital at Home care

If any amber features and no red

- Consider same day review either in practice or if after 18:00 at Out of Hours
- Give bronchiolitis Advice Sheet
- If early in course of illness or multiple amber boxes consider referral to CCN for Hospital at Home care
- If you feel child is deteriorating, will not maintain hydration or has risk factors for severe disease (see box on left) discuss with Paediatrician on call

If any red features

- Bleep Paediatrician On call
- Consider appropriate means of transport
- If appropriate commence relevant treatment to stabilise child for transfer
- Consider starting high flow oxygen support
- Send relevant documentation

Based on NICE guidelines Bronchiolitis in children: diagnosis and management (01 June 2015 updated in 09 Aug) https://www.nice.org.uk/guidance/ng9

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Signs and symptoms of bronchiolitis can include:

- Rhinorrhoea
- Cough
- Poor Feeding
- Bronchiolitis season
- Vomiting
- Pyrexia
- Respiratory distress
- Chesty cough
- Increased work of breathing
- Apnoea
- Inspiratory crackles +/- wheeze
- Cyanosis
- Head bobbing

Bronchiolitis Top Tips

Length of illness

- Natural course of illness peaks at 3-4 days.
- If child presents within first 1-3 days condition is likely to worsen.
- If low risk consider reviewing the next day
- Illness usually lasts 7-14 days.
- Cough will last a number of weeks

Treatments NOT recommended for infants with bronchiolitis

- Antibiotics
- Inhaled beta2 agonist bronchodilators (only consider if older with predominant wheeze and atopic background)
- Inhaled ipratropium bromide
- Oral systemic corticosteroids
- Inhaled corticosteroids

Measuring O2 Saturations

- Remember a saturation probe needs to cover a child's finger or toe with a good seal.
- If there is a large gap it will underestimate the child's saturations.
- **If possible use a paediatric saturation probe in children younger than 2.**

Alternative Diagnosis?

- Consider alternative diagnosis if child systemically unwell or has unusual features or progression of illness (typically coryza > bronchiolitic cough > feeding / breathing difficulties)
- 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

Consider Paediatric Urgent Care Pathway

Alternatives to hospital admission when GPs are considering referral:

- Oxford Paediatric Advice/Referral Line Tel: 01865 227533, Option 1 for HGH and Option 2 for JRH.
- If no response Tel: 01865 741166, Bleep 9403 for HGH or 1711/4734 for JRH Paediatrician on call
- Children's Community Nursing (CCN) Team via single point of access Tel: 01865 902700

Useful numbers for clinicians in the community

John Radcliffe Hospital Tel: **01865 741166**
Horton General Hospital Tel: **01295 275500**
Royal Berkshire Hospital Tel: **0118 322 5111**
Great Western Hospital Tel: **01793 604020**
Stoke Mandeville Hospital Tel: **01296 315000**

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