Management of Wheeze in Primary Care
Clinical Assessment / Management Tool under 2 years

Child presenting with acute wheeze → Immediate resuscitation if required. Dial 999

Box 1: High Risk Factors – Healthcare professionals should be aware of the increased need for hospital admission in infants with the following:

- Extreme low birth weight
- Prolonged NICU/SCBU
- CHD, pre-existing lung condition
- Reduced feeding <50%
- Previous severe episodes

- Assess clinical signs and symptoms
- Assess Risk factors
- Look for life threatening signs and symptoms
- Utilise AccuRx for its video-consultation and patient questionnaire functionalities
- Undertake pulse oximetry for all children seen face to face
- See Boxes 1 and 2

If the diagnosis is bronchiolitis, refer to the appropriate pathway. There is no indication for bronchodilators, as bronchodilators are not effective in the treatment of bronchiolitis.

Box 2: Prompt recognition of respiratory failure

Alarming Signs

- SpO_2<92%, Cyanosis
- Bradycardia < 100 beats /min
- RR < 20 / Apnoea
- Marked Sternal recessions
- Worsening SOB
- Poor air entry
- Previous severe episodes
- Too breathless to feed

Assess severity (treat according to category of most severe signs and symptoms)

	Green - Moderate	Amber - Severe	Red – Life Threatening
Behaviour	Alert Normal	Irritable Not responding normally to social cues Decreased activities No smile	Unable to rouse Wakes only with prolonged stimulation Weak, high pitched or continuous cry Appears ill to a healthcare professional
Skin	CRT < 2 secs Normal colour skin, lips and tongue Moist mucous membranes	CRT 2-3 secs Pale / mottled Pallor colour reported by parent / carer Cool peripheries	CRT > 3 secs Pale / mottled / ashen blue cyanotic lips and tongue
Respiratory Rate	<12 months < 50 breaths / min >12 months < 40 breaths / min No respiratory distress	Tachypnoea < 12 months 50 – 60 breaths / min > 12 months 40-60 breaths / min	Tachypnoea All ages > 60 breaths / min
SpO_2 in air*	95% or above	92-94%	<92%
Chest recession	None	Moderate	Severe
Nasal flaring	Absent	May be present	Present
Grunting	Absent	Absent	Present
Feeding / hydration	Normal Tolerating 75% of fluid Occasional cough induced vomiting	50-75% fluid intake over 3-4 feeds + / - vomiting Reduced urine output	< 50% fluid intake over 2-3 feeds + / - vomiting Significantly reduced urine output
Apnoeas	Absent	Absent	Yes
Other		Presence of High Risk Factors (box 2)	

Oxygen via facemask to maintain SpO_2 94-98% if available

- Give 2-10 puffs of salbutamol via spacer +/- facemask (given 1 puff at a time, inhaled separately).
- Reassess 15-30 minutes post intervention

β2 bronchodilator (salbutamol)
- If SpO2 < 94%, via nebuliser (preferably oxygen-driven)
- If nebuliser not indicated/available, via spacer (10 puffs, one at a time)

Re-assess 15 minutes post intervention

- Refer to hospital A&E resus urgently via ambulance (999)
- High flow oxygen via face mask if available
- Give 10 puffs of salbutamol via face mask or nebuliser, oxygen driven if available (See Table 3: Drug Doses)
- If poor response add ipratropium bromide dose mixed with the nebulised salbutamol (See Table 3: Drug Doses)
- Continue with further doses of bronchodilator while awaiting transfer

Poor Response → **Repeat β_2 bronchodilator and arrange admission via 999**

Poor Response → **Repeat β_2 bronchodilator and arrange admission via 999**

Good Response

- Send home with personalised written action plan
- Check inhaler technique – continue salbutamol inhalers
- Remember to check they have enough inhaler and appropriate spacer
- Antibiotics should not be routinely given
- Give safety netting advice
- Arrange a follow up within 48 – 72 hours with GP or consider referral to Community Team (see Table 5)

Table 3: Drug Doses:

Dose of Salbutamol nebulisers	<5yrs 2.5 mg
Dose of Ipratropium Bromide nebulisers	250 mcg all ages (or up to 500mcg via nebuliser for over 12 years)

Table 4: Inhalers vs Nebulisers

Indications for nebulisers:

- Low saturations <94%
- Unable to use inhaler and spacer (not compliant)
- Significantly low Sats despite inhaler and spacer use
- Severe and life-threatening respiratory distress
- Nebulisers are generally not recommended for home use

Table 5 - Community Children's Nursing Teams

Bedford and North Bedfordshire
Children's Community Nursing Team 01234 310103
Children's Rapid Response Team - 07966025787

Luton and South Bedfordshire

- Children's Community Nursing Team 0333 405 0079
- Children's Rapid Response Team – 07966025787

Milton Keynes
Children's Primary Care Team - 01908 303030 (choose option 4)

Table 6 - Secondary Care Referrals

Bedford General Hospital
Switchboard 01234 355122: Paediatric Registrar

Luton & Dunstable Hospital
Switchboard 01582 491166: Paediatric Registrar bleep 733
GP Urgent Connect (Monday-Friday 9-5pm) 01582 297297 for referrals and advice

Milton Keynes Hospital
01908 660033 bleep paediatrician on call.

This guidance has been produced by Primary Care and consultant clinicians across Bedfordshire, Luton and Milton Keynes, and is written in the following context:

This assessment tool was arrived at after careful consideration of the evidence available including but not exclusively NICE. SIGN, Bristol guideline, EBM data and NHS evidence. Healthcare professionals are expected to take it fully into account when exercising clinical judgement. The guidance does not, however, override the individual responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or guardian or carer.
Issue date: November 2023