Acute Wheeze Primary Care Pathway:

Clinical assessment tool for Children over 2 Years old presenting with Wheeze

Oxfordshire patient pathway

Healthier Together

NHS Buckinghamshire, Oxfordshire and Berkshire West Integrated Care Board

Assess for signs of severe or life-threatening wheeze. IF ANY RED features call Paediatrician on call

IF REQUIRES IMMEDIATE REUSCITATION DIAL 999

Traffic light system of signs and symptoms for identifying severity

	Green – Mild	Amber – Moderate	Red – Severe
Behaviour	Alert Talking in sentences	Alert Unable to complete sentence in one breath	May be agitated Unable to talk
Respiratory	Normal respiratory rate for age Normal respiratory effort	**Under 5 yr** not exceeding 40 breaths/min **Over 5 yr** not exceeding 30 breaths/min Mild respiratory distress	**Under 5 yr** >40 breaths/min **Over 5 yr** >30 breaths/min Moderate respiratory distress
Ausculatation	Good breath-sounds, mild-moderate wheeze	Decreased breath-sounds with marked wheeze	Poor breath-sounds or silent chest
Sp02 in air	>94%	>92%	<92%
Heart Rate	Normal for age	Normal for age	Under 5 yr >140bpm Over 5 yr >125bpm
Peak flow (if able)	>75% l/min best/predicted	50-75% l/min best/predicted	<50% l/min best/predicted

Green – Mild:

Salbutamol 10 'puffs' via inhaler & spacer (check inhaler technique).

Discharge home with information leaflet and safety netting advice.

Consider referral to CCN team if parental concern, first episode or previous significant episode of wheeze requiring hospital admission.

Amber – Moderate:

Salbutamol 10 'puffs' via inhaler and spacer (check inhaler technique).

Oral Prednisolone within 1 hour for 3 days if known asthmatic or multi trigger wheeze.

Reassess after 20 – 30 minutes. If good response discharge home with information leaflet and safety netting advice.

Arrange follow-up timeframe based on response:
If good response and no amber features, arrange follow-up review 4-6 hours in primary care or through CCN referral.

If good response but some amber features remain, arrange follow-up in primary care or by urgent CCN referral within 2 hours.

Red – Severe:

Refer immediately to emergency care and Alert Paediatrician
Oxygen to maintain Sp02 > 94%

Give Salbutamol 10 'puffs' via inhaler & spacer **OR** Salbutamol 2.5 – 5 mg Nebulised **Repeat every 20 mins whilst awaiting transfer**

If not responding add Ipratropium 250 micrograms/dose

Prednisolone orally if tolerated

Stabilise child for transfer and stay with child whilst waiting transfer

Normal Values	
Respiratory Rate	
1-2 yrs	25-35
>2-5 yrs	25-30
>5-12 yrs	20-25
>12 yrs	15-20
Heart Rate	
1-2 yrs	100-150
>2-5 yrs	95-140
>5-12 yrs	80-125
>12 yrs	60-100

Respiratory Distress

Mild: Mild recession and some accessory muscle use

Moderate: Moderate recession and clear accessory muscle use

This guidance is written in the following context:
This document was arrived at after careful consideration of evidence including but not exclusively NICE, SIGN and NHS evidence as applicable. Healthcare professionals are expected to take it fully into account when exercising their 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 carer.
This was approved by BOB ICB CMO sign off September 2023 to be reviewed July 2025

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Consider alternative diagnosis if:

- **Fever and productive cough:** Lower Respiratory tract infection (LRTI):
- **History of choking:** Inhaled foreign body
- **Stridor:** Croup or foreign body
- **Bilateral crepitations:** bronchiolitis or viral pneumonitis
- **Asymmetrical auscultation or focal signs:** LRTI or pneumothorax:
- **Failure to respond to inhalers:** Bronchiolitis / viral pneumonitis or any of the above:

Use and Care of Spacers

- The spacer should be compatible with the Metered Dose Inhaler (MDI) being used.
- A facemask should be used for children under 5 years of age OR those who find a mouth piece spacer difficult.
- 1 single puff inhaled with at least 5 slow deep breaths per puff, repeated as necessary (up to a maximum of 10 puffs for salbutamol). If the child can not follow instructions for slow, deep breathing, use 5 tidal breaths
- Spacers should be cleaned monthly and replaced yearly
- They should be washed in detergent and dried in air.

Oral Steroids

Oral steroids should be used for the treatment of moderate or severe exacerbations of asthma. Routine use of oral steroids should be avoided in children with viral induced wheeze who have no interval symptoms.

Prednisolone doses

2-5 years: 20mg once a day for 3 days (if oral prednisolone is not tolerated then try PO dexamethasone 300 micrograms/kg)
Over 5 years: 30-40mg once a day for 3 days

Medication review and Long term management

- Most children with **intermittent** pre-school **viral-induced** wheeze can be managed with intermittent bronchodilator therapy. However, if there are frequent episodes (more than once every 2 months) an inhaled corticosteroid should be considered.
- Attendance with an episode of wheeze should be used as an opportunity to determine the pattern of wheeze. If there are frequent or persistent symptoms, then an inhaled corticosteroid should be considered.
- If an inhaled corticosteroid is trialed in those with severe/frequent episodes, this should be reviewed and discontinued if no benefit in 6-8 weeks.
- Pre-school children with multi-trigger wheeze and older children with asthma should be managed according to the BTS Step-wise Asthma pathway

Smoking Cessation Advice

In all children with acute wheeze, a social history should be taken, including smokers in the household. Smoking cessation advice should be offered to families where appropriate. https://www.stopforlifeoxon.org/

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

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