

# Acute Asthma / Wheeze Pathway (not for Bronchiolitis)

Clinical Assessment / Management Tool for Children & Young People Older than 1 year old with Acute Wheeze



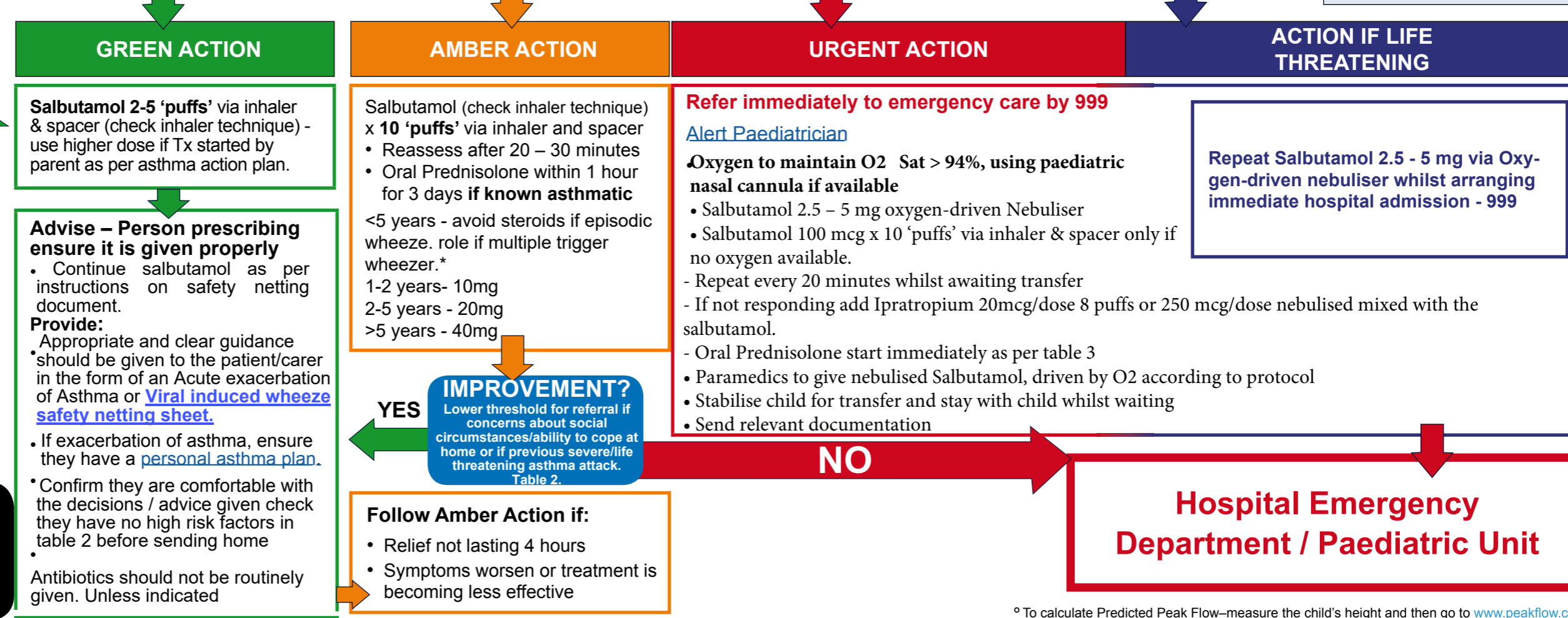
## Management – Primary Care and Community Setting

Patient >1 yr with wheeze presents:

Consider other diagnoses as per Table 1

ASSESSMENT	Low Risk MILD - GREEN	Intermediate Risk MODERATE - AMBER	High Risk SEVERE - RED	IMMEDIATELY LIFE-THREATENING - PURPLE	Normal Values
<b>Behaviour</b>	Alert; No increased work of breathing	Alert; Some increased work of breathing But talking in full sentences	May be agitated; Unable to talk freely or feed	Can only speak in single words; Confused, agitated or drowsy. Coma	<b>Respiratory Rate at rest [b/min]</b> 1-2yrs 25-35 >2-5 yrs 25-30 >5-12 yrs 20-25 >12 yrs 15-20
<b>O2 Sat in air</b>	≥ 95%; Pink	≥ 92%; Pink	< 92%; Pale	< 92%; Cyanosis; Grey	
<b>Heart Rate</b>	Normal	Normal	Under 5yr >140/min Over 5 yr >125/min	Under 5yr >140/min Over 5 yr >125/min May be bradycardic	<b>Heart Rate [bpm]</b> 1-2yrs 100-150 >2-5 yrs 95-140 >5-12 yrs 80-125 >12 yrs 60-100
<b>Respiratory</b>	Normal Respiratory rate  Normal Respiratory effort  Peak Flow <sup>o</sup> (only for children > 6yrs with established technique) PEFR >75% l/min best/predicted	Under 5 yr <40 breaths/min Over 5 yr <30 breaths/min  <b>Mild</b> Respiratory distress: mild recession and some accessory muscle use  PEFR 50-75% l/min best/predicted	Under 5 yr >40 breaths/min Over 5 yr >30 breaths/min  <b>Moderate</b> Respiratory distress: moderate recession & clear accessory muscle use  PEFR <50% l/min best/predicted	<b>Severe</b> Respiratory distress Poor respiratory effort: Silent chest Marked use of accessory muscles and recession exhaustion PEFR <33% l/min best/predicted or too breathless to do PEFR	

Ref: Advanced Paediatric Life Support 5th Edition. Life Advance Support group edited by Martin Samuels; Susan Wieteska Wiley Blackwell/2011  
BMJ Books



\*avoid oral steroids in episodic wheezers (wheezers only with colds). Oral steroids play a role in treating acute exacerbations in multiple trigger wheezers (asthma, eczema, allergies)

**FOLLOWING ANY ACUTE EPISODE, THINK:**

- Asthma / wheeze education and inhaler technique
- Written Asthma/Wheeze action plan
- Follow up with GP/Asthma Practice Nurse within 48hrs. Consider compliance.

<sup>o</sup> To calculate Predicted Peak Flow—measure the child's height and then go to [www.peakflow.com](http://www.peakflow.com)

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## Management – Primary Care and Community Setting



Table 1: Consider after diagnoses if any of the following

- Fever and/or productive cough (pneumonia)
- Dysphagia, drooling, unwell (epiglottitis)
- <1yr, diffuse wheeze and crackles (Bronchiolitis)
- Inspiratory stridor (croup)
- Breathlessness with light headedness and peripheral tingling (hyperventilation)
- Asymmetry on auscultation (pneumonia or a foreign body etc)
- Excessive vomiting (GORD)

Table 2: High Risk Factors – Healthcare professionals should be aware of the increased need for hospital admission in infants with the following:

- Attack in late afternoon or night
- Recent hospital admission
- Previous severe attack
- Young age
- Previous cardio-respiratory illness

Table 3 : Drug Doses

**Dose of soluble prednisolone (orally)** 1-2 years- 10mg, 2-5 years - 20mg, >5 years - 40mg  
**Dose salbutamol nebulisers** <5 yrs 2.5 mg; >5yrs 5mg  
**Dose ipratropium bromide** 250 mcg all ages (or up to 500mcg via nebuliser for over 12 years)

Table 4 : Normal paediatric values:

(Adapted from APLS <sup>†</sup> )	Respiratory Rate at rest:	Heart Rate	Systolic BP mmHg
Pre-school 2 - 5 years	25 - 30	95 - 140	85 - 100
School 5 - 11 years	20 - 25	80 - 120	90 - 110
Adolescent 12-16 years	15 - 20	60 - 100	100 - 120

<sup>†</sup> Adapted from Advanced Paediatric Life Support The Practical Approach Fifth Edition Advanced Life Support Group Edited by Martin Samuels; Susan Wieteska Wiley-Blackwell / 2011 BMJ Books.

Table 5: Predicted Peak Flow: For use with EU / EN13826 scale PEF metres only

Height (m)	Height (ft)	Predicted EU PEFR	Height (m) (L/min)	Height (ft)	Predicted EU PEFR (L/min)
1.00	3' 3"	115	1.45	4'9"	276
1.05	3' 5"	127	1.50	4'11"	299
1.10	3' 7"	141	1.55	5'1"	323
1.15	3' 9"	157	1.60	5'3"	346
1.20	3' 11"	174	1.65	5'5"	370
1.25	4' 1"	192	1.70	5'7"	393