Acute Asthma / Wheeze Pathway (not for Bronchiolitis)

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

Management – Combined Acute and Primary Care

Patient >1 yr with wheeze presents Assess <15mins of arrival

ASSESSMENT	Low Risk MILD - GREEN	Intermediate Risk MODERATE - AMBER	High Risk SEVERE - RED	IMMEDIATELY LIFE-THREATENING - PURPLE
Behaviour	Alert; No increased work of breathing	Alert; Some increased work of breathing	May be agitated; Unable to talk freely or feed	Can only speak in single words; Confusion or drowsy; Coma
O2 Sat in air	≥ 95%; Pink	≥ 92%; Pink	< 92%; Pale	< 92%; Cyanosis; Grey
Heart Rate	Normal	Normal	Under 5yr >140/min Over 5 yr >125/min	Under 5yr >140/min Over 5 yr >125/min May be bradycardic
Respiratory Peak Flow °(only for children > 6yrs with established technique)	Normal Respiratory rate Normal Respiratory effort PEFR >75% l/min best/predicted	Under 5 yr <40 breaths/min Over 5 yr <30 breaths/min **Mild** 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 **Moderate** Respiratory distress: moderate recession & clear accessory muscle use PEFR 33-50% l/min best/predicted	**Severe** Respiratory distress Poor respiratory effort: Silent chest Marked use of accessory muscles and recession PEFR <33% l/min best/predicted or too breathless to do PEFR

***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)**

Consider other diagnoses:

- Cough without a wheeze
- Foreign body
- Croup
- Bronchiolitis

GREEN ACTION

Salbutamol 2-4 puffs via inhaler & spacer (check inhaler technique) - as per asthma action plan

Advise – Person prescribing ensure it is given properly

- Continue Salbutamol 4 hourly as per instructions on safety netting document.

Provide:

- Appropriate and clear guidance should be given to the patient/carer in the form of an exacerbation of Asthma/Wheeze safety netting sheet.
- **Ensure they have a personal asthma action plan.**
- Confirm they are comfortable with the decisions / advice given and then think "Safeguarding" before sending home.
- Ensure GP/practice nurse review within 48 hours

HOME

FOLLOWING ANY ACUTE EPISODE, THINK:

1. Asthma / wheeze education and inhaler technique
2. Written Asthma/Wheeze action plan
3. Early review by GP / Practice Nurse – consider compliance

AMBER ACTION

Salbutamol **2-6 puffs** via inhaler and spacer (check inhaler technique)

- Reassess after 20 – 30 minutes
- Oral Prednisolone within 1 hour for 3 days **if known asthmatic**

<2 years - avoid steroids if episodic wheeze* Consider 10mg OD 3 days; 2-5 years: 20mg; >5 years 30-40mg OD 3 days

IMPROVEMENT?
Lower threshold for referral/escalation if concerns about social circumstances or if previous severe/life threatening asthma attack

YES

NO

Follow Amber Action if:

- Relief not lasting 4 hours
- Symptoms worsen or treatment is becoming less effective

URGENT ACTION

Refer immediately to emergency care by 999

Alert Paediatrician

- **Oxygen to maintain O_2 Sat > 94%, using paediatric nasal cannula if available**
- **Salbutamol 100 mcg x 10 puffs via inhaler & spacer**

OR Salbutamol 2.5 – 5 mg Nebulised

- Repeat every 20 minutes whilst awaiting transfer
- If not responding add Ipratropium 20mcg/dose - <5 years: 4 puffs or 250 mcg nebuliser mixed with the salbutamol; >5 years: 8 puffs or 500mcg nebuliser mixed with salbutamol
- Oral Prednisolone start immediately: 2-5 years 20 mg/day Over 5 years 30-40 mg/day OD 3 days

ACTION IF LIFE THREATENING

Repeat Salbutamol 2.5 - 5 mg via Oxygen-driven nebuliser whilst arranging immediate hospital admission via 999

Hospital Emergency Department / Paediatric Unit

- Move to resus. Consider 2222/Anaesthetics review
- Oxygen to maintain Sats >94%. Consider HHHFT (Optiflow)
- Burst nebulisers (x3 Salbutamol + x3 Ipratropium Bromide)
- IV access and bloods gas
- IV bronchodilation as per STRS guideline and consider liaising with STRS
- Consider IV Hydrocortisone 4mg/kg (max 100mg)
- Consider need for intubation if failure to respond

°To calculate Predicted Peak Flow–measure the child's height and then go to www.peakflow.com

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