### 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

<table>
<thead>
<tr>
<th>ASSESSMENT</th>
<th>Low Risk</th>
<th>Intermediate Risk</th>
<th>High Risk</th>
<th>IMMEDIATELY LIFE-THREATENING</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Behaviour</strong></td>
<td>MILD - GREEN</td>
<td>MODERATE - AMBER</td>
<td>SEvere - RED</td>
<td>PURPLE</td>
</tr>
<tr>
<td>Alert: No increased work of breathing</td>
<td>Alert: Some increased work of breathing</td>
<td>May be agitated; Unable to talk freely or feed</td>
<td>Can only speak in single words; Confusion or drowsy; Coma</td>
<td></td>
</tr>
<tr>
<td><strong>Heart Rate</strong></td>
<td>Normal</td>
<td>Normal</td>
<td>Under 5yr &gt;140/min</td>
<td>Under 5yr &gt;140/min</td>
</tr>
<tr>
<td><strong>Respiratory</strong></td>
<td>Normal Respiratory rate</td>
<td>Under 5yr &lt;40 breaths/min</td>
<td>Under 5yr &gt;40 breaths/min</td>
<td></td>
</tr>
<tr>
<td>Peak Flow* (only for children &gt; 6yrs with established technique)</td>
<td>PEFR &gt;75% l/min best/predicted</td>
<td>PEFR 50-75% l/min best/predicted</td>
<td>PEFR &lt;50% l/min best/predicted</td>
<td></td>
</tr>
</tbody>
</table>

### First Steps

- **Salbutamol 100 mcg x 2-6 ‘puffs’ via inhaler & spacer**

  **Advises – Person prescribing ensure it is given properly**

  - Appropriate and clear guidance should be given to the patient/carer in the form of a Personal Asthma/Wheeze Action Plan (see image);
  - Reassess after 20 – 30 minutes
  - Oral Prednisolone within 1 hour
  - For 3 days if known asthmatic
  - 2-5 years 20 mg/day
  - Over 5 years 30-40 mg/day

  **Provide:**

  - Confirm they are comfortable with the decisions/advice given and then think “Safeguarding” before sending home.
  - The Personal Asthma/Wheeze Action Plan & follow-up appointment are most important.

### IMPROVEMENT?

**YES**

**Improvement:**

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

**Follow Amber Action if:**

**NO**

**Hospital Emergency Department / Paediatric Unit**

**ACTION IF LIFE THREATENING**

- **Repeat Salbutamol 2.5 - 5 mg via Oxygen-driven nebuliser whilst arranging immediate hospital admission - 999**
  - **If cardio-respiratory arrest – start CPR**

**Follow Amber Action if:**

- Afforded to Paediatrician-On-Call*
  - Oxygen to maintain O₂ 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 - 8 puffs
    - Oral Prednisolone start immediately: 2-5 years 20 mg/day; Over 5 years 30-40 mg/day
  - Paramedics to give nebulised Salbutamol, driven by O₂, according to protocol
  - Stabilise child for transfer and stay with child whilst waiting
  - Send relevant documentation

**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

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

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This document was arrived at after careful consideration of the evidence available including but not exclusively NICE, SIGN, EBM data 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.
Where can I learn more about paediatric assessment?

We also recommend signing up to the online and interactive learning tool Spotting the Sick Child. It is free of charge. It was commissioned by the Department of Health to support health professionals in the assessment of the acutely sick child. It is also CPD certified.

www.spottingthesickchild.com

*GP / Clinician Priority Phonelines / Contact Numbers at Local Hospitals

**Supporting Information**

**Every 10 seconds someone has a potentially life threatening Asthma attack (Asthma UK)**

Dear Colleague,

I would like to introduce you to the Acute Asthma / Wheeze Pathway (not for Bronchiolitis) - Clinical Assessment / Management Tool for Children Over 1 year old – Primary Care and Community Settings. This is one of a series of urgent care pathways developed by the Children and Young People’s Network for the most common conditions requiring primary and / or acute care.

The local clinical groups who played such an important role in creating these tools, starting from 2010, have included representatives from acute, community and primary care as well as parents, education and social care. In particular we would also like to thank Paediatrics and Emergency Medicine colleagues for their support in finalising these versions for circulation.

The professionals were all working towards four main objectives:

- To promote evidence-based assessment and management of unwell children and young people.
- To build consistency across the Network area, so all healthcare professionals understand the pathway and can assess, manage and support children, young people and their families during the episode, to the same high standards, regardless of where they present.
- To support local healthcare professionals to share learning and expertise across organisations in order to drive continuous development of high quality care.
- To build the confidence/resilience of parents to manage their child’s illness which should be increased with the consistent advice offered for unwell children and young people accessing all local NHS services in an emergency or urgent scenario.

This pathway is comprised of three elements: parental advice, a pathway for use in primary care and community settings and a pathway for use in acute (hospital) settings. Each part has been designed to be compatible with existing pathways in the acute sector and should be particularly valuable for use in Hospital Emergency Departments and primary care settings.

It is an expectation that these pathways will not only provide a guide for clinicians faced with an unwell child, but will also be used in training and disseminated across all relevant departments and team-members.

We hope you will find this a quality tool to be used within your practice. We look forward to hearing back on how the consistency of assessment and management of these children and the overall quality of practice and patient experience has been improved with this relatively simple but whole system initiative.

To feedback or for further information including how to obtain more copies of this document we have one email address for these queries on behalf of the South East Coast Strategic Clinical Networks area (Kent, Surrey and Sussex). Please email: CWSCCG.cypSECpathways@nhs.net

May we commend it to your use.

Yours sincerely

The Network

Glossary of Terms and Abbreviations

CPD Continuous Professional Development

O₂ Sat in Air Oxygen Saturation in Air