### Management of Acute Exacerbation of Asthma / Wheeze

**Primary Care Clinical Assessment Tool for Children Under 2 Years**

#### History
- Breathless/wheeze/cough
- Viral or allergic trigger
- Previous episodes or interval symptoms
- FH or personal history asthma, eczema or atopy
- Current/Previous treatment and response

#### Examination
- Feeding and speech
- Respiratory rate
- Chest wall expansion and movement
- Use of accessory muscles
- Auscultation of chest – reduced air entry, wheeze, prolonged expiration
- Oxygen Saturation (Sats)

#### Consider other diagnosis
- Pneumonia
- Bronchiolitis in under 1yr old
- Croup
- Foreign body

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Consider other diagnosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>No – treat as below</td>
<td>It may not be asthma. Seek expert help</td>
</tr>
</tbody>
</table>

#### Treat according to most severe feature

**Moderate**
- Able to feed or talk
- Moderate use of accessory muscles
- Audible wheeze
- Sats > 92% in air
  - <1 year: RR > 40/min HR 120-170/min
  - 1-2 yrs: R < 35/min HR 80-110/min

**Severe**
- Previous attack within last 2 weeks
- Too breathless to feed or talk
- Marked use of accessory muscles and wheeze
- Sats < 92 % in air
  - <1 yr: RR > 40/min HR > 170/min
  - 1-2yrs:
    - RR > 35/min HR > 110/min

**Life Threatening**
- Sats < 92% in air plus any of the following:
  - Silent chest
  - Poor respiratory effort
  - Exhusted and unresponsive
  - Coma/agitation
  - Cyanosis
  - Bradycardia
  - Apnoea
  - Respiratory arrest

- Give salbutamol 2-10 puffs via spacer+facemask (one puff at a time,)
- Increase by 2 puffs every 2 minutes up to 10 puffs according to response
- Assess response and repeat if necessary
- Give stat dose soluble prednisolone 10mg

- Call 999
- Give high flow oxygen via fitted mask aim for Sats 94-98%
- Give nebulised Salbutamol 2.5mg (using 6L-8L oxygen)
- Reassess and repeat at 20-30 minute intervals or as necessary
- Give stat dose soluble Prednisolone 10mg
- Consider nebulised Ipratropium Bromide 250mcg (using 6L-8L oxygen). Repeat every 20-30 minutes

**Good response**
- Reassess within 1 hour
- Subtle or no use of accessory muscles
- Minimum wheeze
- Sats > 92% in air

**Poor Response**
- Reconsider diagnosis or severe & life threatening episode

Ensure a health professional stays with child
Contact duty paediatric registrar or consultant to arrange admission

**Ambulance transfer pathway**
Continue to administer oxygen driven nebulised salbutamol if symptoms are severe whilst transferring the child to the emergency department
**Discharge from hospital and GP**

**Patient must be stable have minimal recession with Sats >92% and manage 3-4 hourly between doses of inhaler**
- Discharge on salbutamol 2-10 puffs up to 4 hourly via spacer + facemask
- Complete a 3 day course of Prednisolone 10mg or 2mg/kg/dose
- Give acute asthma management plan
- Check inhaler technique and regular medication
- Review overall asthma control and consider need to step up medication

Arrange a review at GP practice within 48 hours and give advice on re-accessing medical care if condition worsens e.g. OOH service (or open access to Children’s Assessment unit if an option.)

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**Full Respiratory assessment in 7-14 days in primary care**

**THINK TTT –**
consider compliance with existing **Therapy**, Inhaler **Technique** and **Triggers** before stepping up treatment

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Ref: The British Thoracic Society (BTS) and SIGN Guideline on the Management of Asthma (Revised Jan 2012) and thanks to The Suffolk Respiratory Pathway Group

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