**MANAGEMENT OF ACUTE ASTHMA (age 2-5 years) IN GENERAL PRACTICE**

Many deaths from asthma are preventable. Delay can be fatal. Factors leading to poor outcome include:

- Clinical Staff failing to assess severity by objective measurement
- Patients or relatives failing to appreciate severity
- Under-use of corticosteroids

Regard each emergency asthma consultation as for acute severe asthma until shown otherwise.

### ASSESSMENT

<table>
<thead>
<tr>
<th>Moderate Asthma</th>
<th>Acute Severe Asthma</th>
<th>Life Threatening Asthma</th>
</tr>
</thead>
<tbody>
<tr>
<td>• (\text{SpO}^2\geq92%)</td>
<td>• (\text{SpO}^2\geq92%)</td>
<td>• (\text{SpO}^2&lt;92%)</td>
</tr>
<tr>
<td>• Able to talk in full sentences/babble</td>
<td>• Too breathless to talk in full sentences/babble</td>
<td>• Silent chest, cyanosis or poor respiratory effort</td>
</tr>
<tr>
<td>• Heart rate (\leq140\text{min})</td>
<td>• Heart rate (&gt;140\text{min})</td>
<td>• Agitation</td>
</tr>
<tr>
<td>• Respiratory (\leq40\text{min})</td>
<td>• Respiratory (&gt;40\text{min})</td>
<td>• Altered conscious</td>
</tr>
<tr>
<td>• Use of accessory neck muscles</td>
<td></td>
<td>• Exhaustion/Confusion</td>
</tr>
</tbody>
</table>

Assess and record:

- Oxygen saturation by pulse oximetry (\(\text{SpO}^2\))
- Symptoms and response to self treatment
- Heart and respiratory rates
- Look at the whole picture

Caution: patients with severe or life threatening attacks may not be distressed and may not have all the abnormalities listed below. The presence of any should alert the Health Care Professional.

### MANAGEMENT

**Treat at home or in surgery. ASSESS RESPONSE TO TREATMENT**

- **Salbutamol 100 micrograms 2 -10 puffs via spacer +/- facemask**
- **Consider soluble Prednisolone 20mg**

**Increase \(\text{B}_2\) agonist dose by 2 puffs every 2 minutes according to response up to 10 puffs**

**IF POOR RESPONSE ARRANGE ADMISSION**

If good response to first treatment continue Salbutamol 100 micrograms as required up to a maximum of 10 puffs every 4 hours, continue Prednisolone 20mg for 3-5 days and arrange review within 48 hours.

### TREATMENT

- **Oxygen via face mask to maintain \(\text{SpO}^2\) at 94 – 98%**
- **2-10 puffs of Salbutamol 100 micrograms (give 2 puffs, every 2 minutes according to response up to maximum of 10 puffs)**
  - OR nebulised Salbutamol 2.5mg
  - OR nebulised Terbutaline 5mg
- **Soluble Prednisolone 20mg**

**Assess response to treatment 15 mins after \(\text{B}_2\) agonist**

- **Oxygen via face mask to maintain \(\text{SpO}^2\) at 94 – 98%**
- **Nebulise:**
  - Salbutamol 2.5mg (\(\text{B}_2\) agonist)
  - OR Terbutaline 5mg (\(\text{B}_2\) agonist)
  - OR Ipratropium 0.25mg
- **Soluble Prednisolone 20mg or IV hydrocortisone 50mg**

**REPEAT \(\text{B}_2\)AGONIST PREFERABLY VIA OXYGEN-DRIVEN NEBULISER WHILST ARRANGING IMMEDIATE HOSPITAL ADMISSION**

### IF POOR RESPONSE ARRANGE ADMISSION

If good response to first treatment continue Salbutamol 100 micrograms as required up to a maximum of 10 puffs every 4 hours, continue Prednisolone 20mg for 3-5 days and arrange review within 48 hours.

Admit to hospital if any:

- Life threatening features
- Features of acute severe asthma present after initial treatment
- Previous near fatal asthma

Lower threshold for admission if:

- Afternoon or evening attack
- Recent nocturnal symptoms or hospital admission
- Previous severe attacks
- Parent unable to assess child’s condition
- Concerns over social circumstances

If admitting the patient to hospital:

- Repeat \(\text{B}_2\) agonist while waiting for Ambulance
- Stay with the patient until ambulance arrives
- Send written assessment and referral details to hospital

Follow up after treatment or discharge from hospital:

- Arrange a review within 48 hours
- Monitor symptoms
- Check inhaler technique
- Written Dudley Asthma Action Plan
- Modify treatment according to Dudley Asthma Treatment Guidelines
- Address potentially preventable contributors to admission

Based on National Asthma Management Guidelines British Thoracic Society/Scottish Intercollegiate Guidelines Network 2008 (Revised May 2011)