**Assess and record:**
- Oxygen saturation by pulse oximetry (SpO\(^2\))
- Peak expiratory flow (PEF) % of best or predicted
- Symptoms and response to self treatment
- Heart and respiratory rates
- Blood pressure
- **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.

### Moderate Asthma
- SpO\(^2\) ≥ 92%
- PEF >50-75% best or predicted
- Speech normal
- Respiration <25 breaths/min
- Pulse < 110 beats/min

### Acute Severe Asthma
- SpO\(^2\) ≥ 92%
- PEF 33-50% best or predicted
- Can't complete sentences
- Respiration ≥ 25 breaths/min
- Pulse ≥ 110 beats/min

### Life Threatening Asthma
- SpO\(^2\) <92%
- PEF <33% best or predicted
- Silent chest, cyanosis or poor respiratory effort
- Arrhythmia or hypotension
- Exhaustion, altered consciousness

**ASSESSMENT**

**TREATMENT**
- Give 4 puffs of Salbutamol 100 micrograms via spacer and a further 2 puffs every 2 minutes according to response up to a maximum of 10 puffs
- Nebuliser (preferably oxygen driven) with Salbutamol 5mg/Terbutaline 10mg OR Give 4 puffs of Salbutamol 100 micrograms via spacer and a further 2 puffs every 2 minutes according to response up to a maximum of 10 puffs
- Give Prednisolone 40-50mg
- Oxygen to maintain at 94 – 98%, if available
- Nebuliser (preferably oxygen driven) with Salbutamol 5mg/Terbutaline 10mg and Ipratropium 0.5mg OR Give 4 puffs of Salbutamol 100 micrograms and Ipratropium 20 micrograms via spacer and a further 2 puffs every 2 minutes according to response up to a maximum of 10 puffs each
- Give Prednisolone 40 – 50mg OR IV hydrocortisone 100mg immediately
- Oxygen to maintain at 94 – 98%, if available
- Nebuliser (preferably oxygen driven) with Salbutamol 5mg/Terbutaline 10mg and Ipratropium 0.5mg OR Give 4 puffs of Salbutamol 100 micrograms and Ipratropium 20 micrograms via spacer and a further 2 puffs every 2 minutes according to response up to a maximum of 10 puffs each
- Give Prednisolone 40 – 50mg OR IV hydrocortisone 100mg immediately

**IF POOR RESPONSE ARRANGE ADMISSION**

If good response to first treatment (symptoms improved, respiration and pulse settling and PEF >50%) continue or step up usual treatment and continue Prednisolone for 40-50mg for 4 to 5 days. 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
- Patient unable to assess own condition
- Concerns over social circumstances

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

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.

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