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NHS DUDLEY RESPIRATORY GROUP

EXCELLENCE IN ASTHMA – DUDLEY RESPIRATORY GROUP

MANAGEMENT OF ACUTE ASTHMA 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

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

ASSESS → **TREAT** → **REASSESS** → **FOLLOW-UP**

ACCESS AND RECORD

- Oxygen saturation by pulse oximetry (SpO2)
- Peak Expiratory Flow (PEF)% of best or predicted
- Symptoms and response to self-treatment
- Ability to talk/babble
- Heart and respiratory rates
- Blood pressure
- **LOOK AT WHOLE PICTURE**

Moderate Asthma Attack:
TREAT AT HOME: SURGERY

Acute Severe Asthma Attack:
CONSIDER ADMISSION

Life Threatening Asthma Attack:
ARRANGE IMMEDIATE ADMISSION

TREAT

as per guidelines attached according to age.

REASSESS

If poor response to treatment – **Arrange admission.**
If good response to first treatment continue as per guidelines attached.

FOLLOW-UP

after treatment or discharge from hospital:

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

Admit to hospital if:

- Any features of Life Threatening Asthma Attack
- Features of acute Severe Asthma Attack present after initial treatment
- Previous near fatal Asthma Attack

Lower threshold for admission if:

- Afternoon or evening Asthma Attack
- Recent nocturnal symptoms or hospital admission
- Previous Severe Asthma Attacks
- Parent unable to assess child's condition
- Concerns over social circumstances

If Admitting the patient to hospital:

- Repeat B2agonist while waiting for the Ambulance
- Stay with the patient until ambulance arrives
- Send written assessment and referral details to hospital

Based on National Asthma Management Guidelines British Thoracic Society/Scottish Intercollegiate Guidelines Network SIGN 153 September 2016

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EXCELLENCE IN ASTHMA DUDLEY RESPIRATORY GROUP

MANAGEMENT OF ACUTE ASTHMA in general practice

children 2-5 years

Moderate Asthma	Acute Severe Asthma	Life Threatening Asthma
ASSESSMENT		
• SpO_2 ≥92% • Able to talk in full sentences/babble • Heart rate ≤140/min • Respiratory ≤40/min	• SpO_2 <92% • Too breathless to talk in full sentences/babble • Heart rate >140/min • Respiratory >40/min • Use of accessory neck muscles	**SpO_2 <92% plus any of...** • Silent chest, cyanosis or poor respiratory effort • Agitation • Altered consciousness • Exhaustion/Confusion
MANAGEMENT		
Treat at home or in surgery. ASSESS RESPONSE TO TREATMENT	**Consider Admission**	**Arrange IMMEDIATE ADMISSION**
TREATMENT		
• Salbutamol 100 micrograms 2 -10 puffs via spacer +/- facemask • Consider Prednisolone 20mg **Increase B_2agonist dose by 2 puffs every 2 minutes according to response up to 10 puffs**	• Oxygen via face mask to maintain 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 • Prednisolone 20mg	• Oxygen via face mask to maintain SpO_2 at 94 – 98% • **Nebulise:** Salbutamol 2.5mg (B_2agonist) **OR** Terbutaline 5mg (B_2agonist) + Ipratropium 0.25mg • Prednisolone 20mg or IV hydrocortisone 50mg
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 up to 3 days and arrange review within 48 hours.**		**REPEAT B_2 AGONIST PREFERABLY VIA OXYGEN-DRIVEN NEBULISER WHILST ARRANGING IMMEDIATE HOSPITAL ADMISSION**

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EXCELLENCE IN ASTHMA – DUDLEY RESPIRATORY GROUP

MANAGEMENT OF ACUTE ASTHMA in general practice

children 6-11 years

Moderate Asthma	Acute Severe Asthma	Life Threatening Asthma
ASSESSMENT		
• SpO_2 ≥92% • PEF ≥50% best or predicted • Able to talk in full sentences • Heart rate ≤125/min • Respiratory ≤30/min	• SpO_2 <92% • PEF 33-50% best or predicted • Too breathless to talk in full sentences • Heart rate >125/min • Respiratory >30/min • Use of accessory neck muscles	**SpO_2 <92% plus any of...** • PEF <33% best or predicted • Silent chest, cyanosis or poor respiratory effort • Agitation • Altered consciousness • Exhaustion/Confusion
MANAGEMENT		
Treat at home or in surgery. **ASSESS RESPONSE TO TREATMENT**	**Consider Admission**	**Arrange IMMEDIATE ADMISSION**
TREATMENT		
• Salbutamol 100 micrograms 2 -10 puffs via spacer +/- facemask • Consider Prednisolone 30-40mg **Increase B_2agonist dose by 2 puffs every 2 minutes according to response up to 10 puffs**	• Oxygen via face mask to maintain 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 2.5-5mg **OR** nebulised Terbutaline 5-10mg • Prednisolone 30-40mg	• Oxygen via face mask to maintain SpO_2 at 94 – 98% • **Nebulise:** Salbutamol 5mg (B_2agonist) **OR** Terbutaline 10mg (B_2agonist) + Ipratropium 0.25mg • Prednisolone 30-40mg or IV hydrocortisone 100mg
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 30-40mg for up to 3 days and arrange review within 48 hours.**		**REPEAT B_2 AGONIST PREFERABLY VIA OXYGEN-DRIVEN NEBULISER WHILST ARRANGING IMMEDIATE HOSPITAL ADMISSION**

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EXCELLENCE IN ASTHMA – DUDLEY RESPIRATORY GROUP

MANAGEMENT OF ACUTE ASTHMA in general practice

12+ years

Moderate Asthma	Acute Severe Asthma	Life Threatening Asthma
ASSESSMENT		
• SpO_2 ≥92% • PEF ≥50-75% best or predicted • Speech normal • Respiratory <25 breaths/min • Pulse <110 beats/min	• SpO_2 ≥92% • PEF 33-50% best or predicted • Can't complete sentences • Respiratory ≥25 breaths/min • Pulse ≥110 beats/min	• SpO_2 <92% • PEF <33% best or predicted • Silent chest, cyanosis or poor respiratory effort • Arrhythmia or hypotension • Exhaustion, altered consciousness
MANAGEMENT		
Treat at home or in surgery. **ASSESS RESPONSE TO TREATMENT**	**Consider Admission**	**Arrange IMMEDIATE ADMISSION**
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 **OR** Nebuliser (preferably oxygen driven) with Salbutamol 5mg/Terbutaline 10mg	• Oxygen to maintain at 94 – 98%, if available • 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	• 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	• Give Prednisolone 40 – 50mg **OR** IV hydrocortisone 100mg immediately	• Give Prednisolone 40 – 50mg **OR** IV hydrocortisone 100mg immediately
IF POOR RESPONSE ARRANGE ADMISSION		**REPEAT B_2 AGONIST PREFERABLY VIA OXYGEN-DRIVEN NEBULISER WHILST ARRANGING IMMEDIATE HOSPITAL 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 40-50mg for at least 5 days and arrange review within 48 hours.**

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