Northern Devon Healthcare NHS Trust

Document Control

Title **Protocol for the Management of Asthma in the Minor Injuries Units**			
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Version	**Date Issued**	**Status**	**Comment / Changes / Approval**
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2.0	Oct 2015	Draft	Reviewed and amended Karen Watts / Fionn Bellis
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Lead Director Medical Director			
Superseded Documents			
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Consulted with the following stakeholders: (list all) • Fionn Bellis ED Consultant • Louise Mitchell ED Consultant • MIU Leads			
Approval and Review Process • Lead Clinician for Emergency Department			
Local Archive Reference G:\Policies and Protocols **Local Path** MIU **Filename** Asthma Standard Operating Procedure			

Policy categories for Trust's internal website (Bob)	Tags for Trust's internal website (Bob)
MIU	MIU

CONTENTS

1. Background

This protocol is for the use by staff employed by Northern Devon Healthcare Trust who have achieved the agreed clinical competencies to work under this procedure.

2. Presenting Symptoms

2.1. Adults

More than one of the following symptoms:

- Wheeze
- Breathlessness

Chest tightness and cough, particularly if:

- Symptoms worse at night and in the early morning
- Symptoms in response to exercise, allergens and cold air
- Symptoms after taking aspirin or beta blockers

2.2. Children

More than one of the following symptoms:

- Wheeze
- Cough
- Difficulty breathing
- Chest tightness

Symptoms may be:

- Frequent and recurrent
- Worse at night and in the early morning
- Occur in response to or are worse after exercise or other triggers such as exposure to pets, cold or damp air or with emotions or laughter
- Occur apart from colds

3. History

Refer to protocol for History taking and Clinical Documentation.

3.1. Document a full history, including:

- Personal history of asthma
- Family history of asthma
- History of improvement in response to therapy

- Taking aspirin or beta blockers

4. Clinical Examination

4.1. Look for:

- General appearance and presenting symptoms
- Use of accessory muscles to breath
- Tracheal deviation
- Tachypnoea

4.2. Listen for:

- Widespread wheeze on auscultation – if competent to do so

4.3. Monitor and record vital signs (see appendix A and B):

- To include, BP, HR, RR, $Sa0_2$, CRT, Temperature and Peak-flow

5. Treatment Pathway in the MIU

5.1. Management of Acute Asthma in Adults (see link appendix C)

- Arrange immediate transfer of patients with any feature of life threatening or severe asthma
- Administer salbutamol nebuliser driven through 6-8 litres of oxygen as per Patient Group Direction
- Administer ipratropium bromide nebuliser through 6-8 litres as per Patient Group Direction concurrently with salbutamol
- Aim to maintain $Sa0_2$ level above 94%
- Arrange emergency transfer to secondary care. Closely monitor vital signs and record Early Warning Score (EWS)
- Consider administration of oral prednisolone as per Patient Group Direction
- GP must be informed of admission within 24 hours

5.2. Management of Acute Asthma in Children, aged 2 years and over (see link appendix D)

- Administer high flow oxygen
- Monitor vital signs and Paediatric Early Warning Score (PEWS) (see appendix B)
- Arrange immediate transfer of patients with any feature of life threatening or severe asthma
- Administer salbutamol nebuliser driven through 6-8 litres of oxygen as per Patient Group Direction

- Administer ipratropium bromide nebuliser driven through 6-8 litres of oxygen as per Patient Group Direction concurrently with salbutamol
- Administer oral prednisolone as per Patient Group Direction
- Do not delay transfer to administer medication

Children with mild to moderate asthma:

- Administer up to 10 puffs of salbutamol via spacer if available as per Patient Group Direction
- Refer all children with acute asthma under the age of 2 years to secondary care urgently
- Monitor vital signs closely until transfer

5.3. Asthma in Young People between 12 and 19 years of age

- As procedure for adults

6. Discharge Pathway

Ensure patient is issued with appropriate advice and that patient understands the need to return if symptoms change or worsens.

6.1. DOCUMENTATION TO BE COMPLETED

Clinical treatment record as per Documentation and record keeping policies. Copy of clinical treatment record to General Practitioner; to be sent to surgery as per Record Keeping Policy.

For patients being transferred to secondary care, ensure a copy of the clinical treatment record is sent with patient. A copy will also be sent to surgery in the normal manner.

6.2. BEFORE DISCHARGE ENSURE:

Those patients who have been referred for further acute intervention has appropriate transport to meet their needs, all relevant treatment has been prescribed and administered and correct information is given to the patient.

- The patient understands that if condition deteriorates or they have further concerns they should seek further advice.

- The patient demonstrates understanding of advice given during consultation.

- The patient demonstrates an understanding of how to manage subsequent problems.

Arrange GP follow up within 2 working days post discharge.

7. References

- BNFhttp://www.medicinescomplete.com/mc/bnf/current/
- BTS / SIGN (2016) British Guideline on the Management of Asthma
- Consent policy NDHCT V5.1 (2018) NDHCT
- Emergency Department Guidelines (2012) NDHCT
- Medicines Policy NDHCT V2 (2018) NDHCT
- Patient Group Direction Policy V4 (2016) NDHCT

APPENDIX A – Essential Documentation for All Patients Attending Unit or Centre

Adults Consent

Gain consent to be seen by a nurse practitioner
Gain consent for treatment and sharing information and document.

Clinical Presentation

If unwell assess for:

- Airway
- Breathing
- Circulation
- Disability
- Exposure

Document a full set of observations including neurological observations including Glasgow coma score if applicable.

Record EWS: if 7 or above arrange immediate transfer to secondary care. Refer to Treatment Escalation Plan if in place and discuss with Emergency Department if necessary.

Document pain score using numeric rating scale. For cognitively impaired patients document any signs of pain (e.g. grimaces or distress).

Safeguarding

Ask the domestic abuse question, 'do you feel safe at home?'

- Assess for mental capacity and if person is a vulnerable adult.
- Assess for learning disability and whether patient has a hospital passport in place.
- Assess falls risk. Complete falls referral if applicable.

APPENDIX B – Essential Documentation for All Patients Attending Unit or Centre

Child and Young Persons under 18 Years Old Consent

Gain consent to be seen by a nurse practitioner
Gain consent for treatment and sharing information
Assess and document competency according to Fraser guideline if applicable.
Document the name of person(s) accompanying patient.

Clinical Presentation

If unwell assess for:

- Airway
- Breathing
- Circulation
- Disability
- Exposure

Record PEWS: if any one parameter is triggered transfer to secondary care or seek advice from medical practitioner.

Use guideline Traffic Light System (NICE) 2013 if applicable.
Use guideline Feverish Illness (NICE) 2013 if applicable.
Document pain score using FLACC, Wong Baker Faces or numeric rating scale.

Safeguarding

Complete safeguarding children questions (NICE 2003)

Any injury or bruise in a non- mobile infant and child: follow Safeguarding Children Policy (2018). These children must be reviewed by a Consultant in Emergency Medicine or a Consultant Paediatrician and a multi agency safeguarding hub enquiry (MASH) must be made.

DOCUMENT ALL FINDINGS IN THE CLINICAL TREATMENT RECORD AND ACT ON THEM FOLLOWING NDHCT GUIDELINES.

APPENDIX C – Management of Acute Asthma in Adults

Link to British guideline on the management of asthma PAGE 149, annex 3

https://www.brit-thoracic.org.uk/document-library/clinical-information/asthma/btssign-asthma-guideline-2016/

APPENDIX D – Management of Acute Asthma in Children Aged 2 Years and Over

Link to British guideline on the management of asthma PAGE 152, annex 6

https://www.brit-thoracic.org.uk/document-library/clinical-information/asthma/btssign-asthma-guideline-2016/

APPENDIX E – Training Competency Form

Protocol for the Management of Asthma in the MIUs

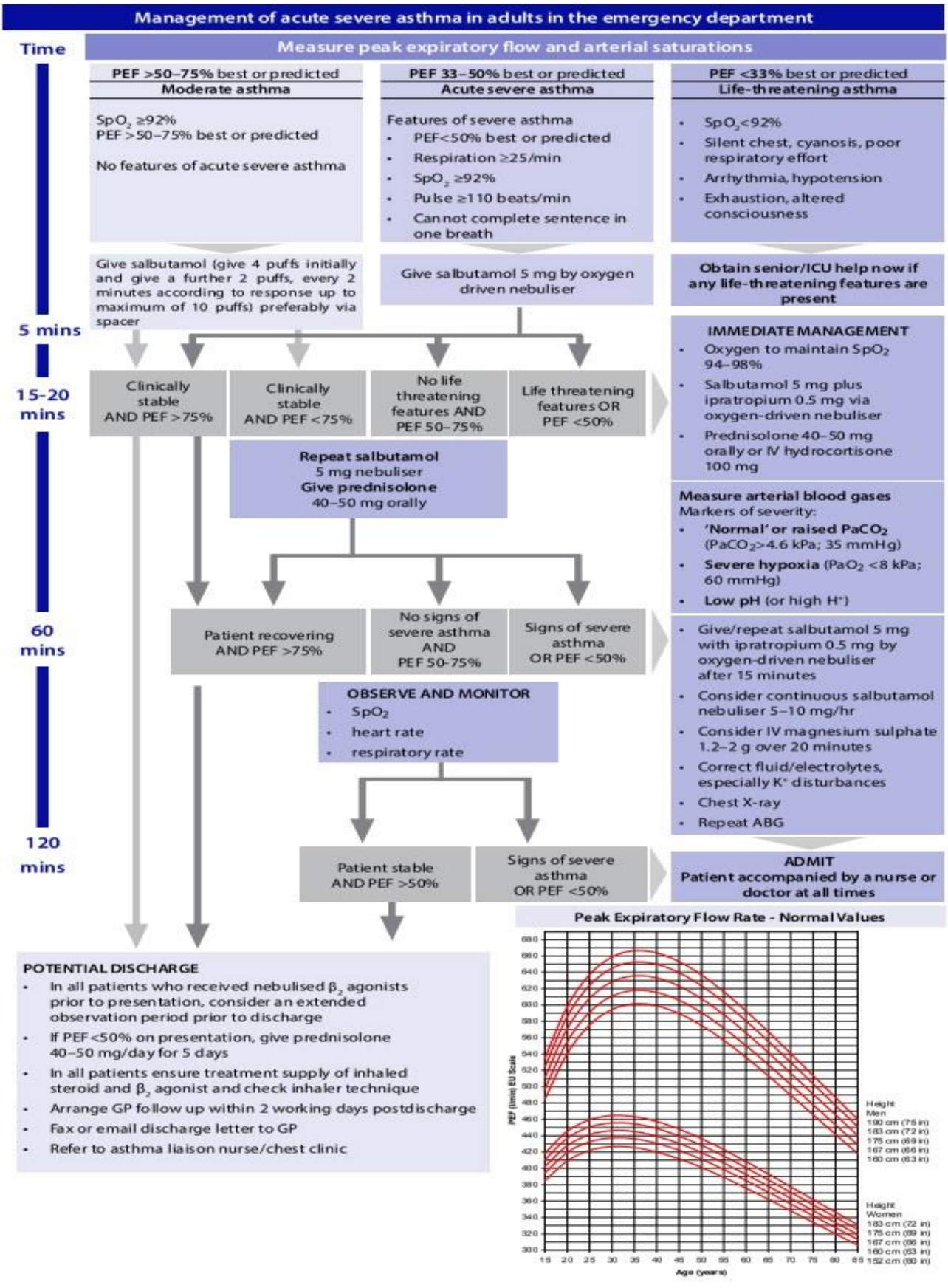
Procedure operational from October 2018 and expires end of October 2021

The registered health professional named below, being employees of Northern Devon Healthcare Trust based at ……. have received training and are competent to operate under this procedure

NAME *(please print)*	PROFESSIONAL TITLE	SIGNATURE	AUTHORISING MANAGER *(please print)*	MANAGER'S SIGNATURE	DATE

Keep original with the authorising manager and send a copy to: Karen Watts, Emergency Department, Northern Devon Healthcare Trust NHS, Raleigh Park, Barnstaple, Devon EX31 4JB

APPENDIX F – Management of acute severe asthma in adults in the emergency department



British guideline on the management of asthma

Annex 6

Management of acute asthma in children in emergency department

Age 2–5 years

ASSESS AND RECORD ASTHMA SEVERITY

Moderate asthma	Acute severe asthma	Life-threatening asthma
• SpO2 ≥92% • No clinical features of severe asthma **NB: If a patient has signs and symptoms across categories, always treat according to their most severe features**	• SpO_2 <92% • Too breathless to talk or eat • Heart rate >140/min • Respiratory rate >40/min • Use of accessory neck muscles	SpO_2 <92% plus any of: • Silent chest • Poor respiratory effort • Agitation • Confusion • Cyanosis

First line treatments

Oxygen via face mask/nasal prongs to achieve SpO_2 94–98%

• β_2 agonist 2–10 puffs via spacer ± facemask (given one puff at a time inhaled separately using tidal breathing) • Give one puff of β_2 agonist every 30–60 seconds up to 10 puffs according to response • Consider oral prednisolone 20 mg	• β_2 agonist 10 puffs via spacer ± facemask or nebulised salbutamol 2.5 mg • Oral prednisolone 20 mg or IV hydrocortisone 4 mg/kg if vomiting • **If poor response** add 0.25 mg nebulised ipratropium bromide to every nebulised β_2 agonist • Repeat β_2 agonist and ipratropium up to every 20 minutes for 2 hours according to response	• Nebulised β_2 agonist: salbutamol 2.5 mg **plus** ipratropium bromide 0.25 mg nebulised • Repeat bronchodilators every 20–30 minutes • Oral prednisolone 20 mg or IV Hydrocortisone 4 mg/kg if vomiting **Discuss with senior clinician, PICU team or paediatrician**
Reassess within 1 hour		

Second line treatments

DISCHARGE PLAN

- Continue β_2 agonist 4 hourly as necessary
- Consider prednisolone 20 mg daily for 3–5 days until symptoms have settled
- Advise to contact GP if not controlled on above treatment
- Provide a written asthma action plan
- Review regular treatment
- Check inhaler technique
- Arrange GP follow up within 48 hours
- Arrange hospital asthma clinic follow up in 4–6 weeks if 2nd or subsequent attack in past 12 months.

- Consider 2nd line treatments - see Annex 7
- Admit all cases if features of severe attack persist after initial treatment
- Arrange transfer to PICU/HDU if poor response to treatment as per local guidelines

Age >5 years

ASSESS AND RECORD ASTHMA SEVERITY

Moderate asthma	Acute severe asthma	Life-threatening asthma
• SpO_2 ≥92% • PEF ≥50% best or predicted • No clinical features of severe asthma **NB: If a patient has signs and symptoms across categories, always treat according to their most severe features**	• SpO_2 <92% • PEF 33–50% best or predicted • Heart rate >125/min • Respiratory rate >30/min • Use of accessory neck	SpO_2 <92% plus any of: • PEF<33% best or predicted • Silent chest • Poor respiratory effort • Altered consciousness • Cyanosis

First line treatments

Oxygen via face mask/nasal prongs to achieve SpO_2 94–98%

• β_2 agonist 2–10 puffs via spacer and mouthpiece (given one puff at a time inhaled separately using tidal breathing) • Give one puff of β_2 agonist every 30–60 seconds up to 10 puffs according to response • Oral prednisolone 30–40 mg	• β_2 agonist 10 puffs via spacer or nebulised salbutamol 5 mg • Oral prednisolone 30–40 mg or IV hydrocortisone 4 mg/kg if vomiting • **If poor response** add 0.25 mg nebulised ipratropium bromide to every nebulised β_2 agonist • Repeat β_2 agonist and ipratropium up to every 20 minutes for 2 hours according to response	• Nebulised β_2 agonist: salbutamol 5 mg plus ipratropium bromide 0.25 mg nebulised • Repeat bronchodilators every 20–30 minutes • Oral prednisolone 30–40 mg or IV Hydrocortisone 4 mg/kg if vomiting **Discuss with senior clinician, PICU team or paediatrician**
Reassess within 1 hour		

Second line treatments

DISCHARGE PLAN

- Continue β_2 agonist 4 hourly as necessary
- Consider prednisolone 30–40 mg daily for 3–5 days until symptoms have settled
- Seek medical advice if not controlled on above treatment
- Provide a written asthma action plan
- Review regular treatment
- Check inhaler technique
- Arrange GP follow up within 48 hours
- Arrange hospital asthma clinic follow up in 4–6 weeks if 2nd or subsequent attack in past 12 months.

- Consider 2nd line treatments - see Annex 7
- Admit all cases if features of severe attack persist after initial treatment
- Arrange transfer to PICU/HDU if poor response to treatment as per local guidelines