1. Introduction

This guideline sets out the recommended assessment and management process for acute asthma exacerbations in adults, and is based on the Sign Guidelines 2016 Management of Acute Asthma. Please refer to the LLR adult asthma guidelines for the long term management of asthma outside of an acute exacerbation:

https://www.sign.ac.uk/assets/sign153.pdf


2. Scope

This guideline applies for use in all adult patients who are admitted to UHL with an episode of acute asthma. It is intended for use by any medical staff treating these patients. This particularly includes junior doctors and consultants working in acute areas such as, medical assessment units such as CDU (GGH) AMU (LRI) and all inpatient wards (including LRI, GGH and LGH) where patients with asthma may be treated. It may also be useful for nursing staff in these areas.

3. Assessment and Management of Acute Asthma in Adults

Two care bundles have been developed to meet the standards for initial assessment and management of acute exacerbations of asthma; and for management prior to discharge. See Appendix 1 and 2.

These care bundles should be completed by medical and nursing staff caring for patients with acute asthma and signed, timed and dated.

4. Monitoring and Audit Criteria

UHL will participate in the annual BTS Asthma Audit which measures standards of care compared to national performance. Lead for this Section: Professor P Bradding, Respiratory Consultant.
## Appendix 1: Asthma assessment and Management Care Bundle

### Step 1 – Diagnosis
- **Likely asthma** - typical symptoms of wheeze, breathlessness, cough, nocturnal and early morning symptoms, family history of asthma or atopy, Low PEFR, raised eosinophils. **Go to step 2**
- **Possibly not asthma** - No wheeze on examination, normal PEFR (when symptomatic). Heavy smoker for prolonged period (over 20 years). Voice disturbance, cardiac disease, productive cough. **Consider other diagnosis**

### Step 2—Assessment
- Document clinical examination, including RR, SpO2, HR
- Request ECG to rule out arrhythmias.
- **CXR not routinely required, unless consolidation or pneumothorax suspected.** CXR indicated for patients with life threatening features or those who fail to improve.

#### Peak Flow:
- Admitting PEF: 
- Best/Predicted PEF: 
- Patient’s PEF as % of Best: 

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<th>l/min</th>
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### Step 3—Severity and Management

#### MODERATE EXACERBATION
- PEF 50-75% of best or predicted
- No features of severe asthma present

#### SEVERE EXACERBATION (any 1 feature)
- PEF 33-50% of best or predicted
- Cannot complete sentences in 1 breath
- Respiratory Rate >25/min
- Heart Rate >110/min

#### LIFE THREATENING or NEAR-FATAL
- PEF <30% of best or predicted
- Sats <92% or ABG pO2 <8kPa
- ABG CO2 normal or high
- Cyanosis, poor respiratory effort, near or fully silent chest
- Exhaustion, confusion or arrhythmias

#### TREATMENT
- Oxygen to maintain saturation 94-98%
- Nebulized salbutamol & oral/iv steroids

**In addition to above:**
- Inform senior, consider ABG
- Nebulized Ipratropium Bromide 500 micrograms
- Consider back to back Salbutamol

**In addition to above:**
- Consider ICU/anaesthetist assessment
- Urgent portable CXR
- Consider iv Magnesium
- Consider iv Aminophylline 5mg/kg ideal body weight loading dose and 0.5mg/kg/hr maintenance. Skip loading dose if already on oral theophylline.

Completed by: Name & Sign: Date:

Time:
Appendix 2: Asthma Discharge Care Bundle

<table>
<thead>
<tr>
<th>1. Current Peak Flow Rate &gt; 75% of patients predicted or best and has been off nebulisers for 24 hours</th>
<th>Yes ☐ No ☐</th>
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<tbody>
<tr>
<td>2. If the patient is a smoker offer smoking cessation via ICM. Has NRT been prescribed?</td>
<td>N/A ☐ Yes ☐</td>
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<tr>
<td>3. Asthma triggers discussed</td>
<td>Yes ☐ No ☐</td>
</tr>
<tr>
<td>Inhaled preventer and reliever treatment prescribed together with prednisolone.</td>
<td>Yes ☐ No ☐</td>
</tr>
<tr>
<td>Inhaler technique checked and satisfactory</td>
<td>Yes ☐ No ☐</td>
</tr>
<tr>
<td>4. Education about the importance of adherence to treatment particularly inhaled corticosteroids has been given and understood.</td>
<td>Yes ☐ No ☐</td>
</tr>
<tr>
<td>5. A Personal Asthma Action Plan (PAAP) has been given/reviewed by trained nurse OR A PAAP has been given to the patient who has been advised to take it to PN for completion. Download from: <a href="http://www.asthma.org.uk">http://www.asthma.org.uk</a> - search PAAP</td>
<td>Yes ☐ No ☐</td>
</tr>
<tr>
<td>6. Follow up: Patient has been advised to see GP within 48 hours of discharge. Peak Flow Meter given to patient</td>
<td>Yes ☐ No ☐</td>
</tr>
<tr>
<td>7. Patient has been referred to Asthma Nurses via ICE</td>
<td>Yes ☐ No ☐</td>
</tr>
<tr>
<td>8. Patient has been referred for Consultant follow-up (recommended for all patients) - paper referral form.</td>
<td>Yes ☐ No ☐</td>
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</tbody>
</table>

If any criteria are not being met, please discuss the case with your immediate senior.

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<thead>
<tr>
<th>Doctors Name and Signature</th>
<th>Nurse Name and Signature</th>
<th>Date completed</th>
</tr>
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<tbody>
<tr>
<td>Date</td>
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