1. **Aim/Purpose of this Guideline**

1.1 The guidance provides advice on management of acute exacerbations of asthma in adults.

1.2. **Data Protection Act 2018 (General Data Protection Regulation – GDPR) Legislation**

The Trust has a duty under the DPA18 to ensure that there is a valid legal basis to process personal and sensitive data. The legal basis for processing must be identified and documented before the processing begins. In many cases we may need consent; this must be explicit, informed and documented. We can't rely on Opt out, it must be Opt in.

The DPA18 covers how the Trust obtains, hold, record, use and store all personal and special category (e.g. Health) information in a secure and confidential manner. This Act covers all data and information whether held electronically or on paper and extends to databases, videos and other automated media about living individuals including but not limited to Human Resources and payroll records, medical records, other manual files, microfilm/fiche, pathology results, images and other sensitive data.

DPA18 is applicable to all staff; this includes those working as contractors and providers of services.

For more information about your obligations under the DPA18 please see the ‘information use framework policy’, or contact the Information Governance Team rch-tr.infogov@nhs.net

2. **The Guidance**

See flowcharts on following pages.
Acute Exacerbations of Asthma in Adults Clinical Guideline V2.0

**Moderate Exacerbation**
- Increasing symptoms
- PEF 50-75% best/predicted
- No features of acute severe asthma

Start Oxygen driven Salbutamol Nebuliser & aim SpO2 94-98%

**Acute severe**
- Any 1 of:
  - PEF 33-50% best or predicted
  - RR >25/ min
  - HR >110
  - Inability to complete sentences in 1 breath

Start Oxygen driven Salbutamol or terbutaline & Ipratropium Nebuliser Aim SpO2 94-98%

**Life Threatening**
- PEF <33% best/predicted
- SpO2 <92%
- PaO2 <8kPa
- Normal PaCO2
- Silent chest
- Cyanosis
- Poor respiratory effort Arrhythmia

Near Fatal
- Raised P O

****Within 1 hour of arrival**
Give oral prednisolone 50mg or IV hydrocortisone 200mg

If not improved: add ipratropium nebs

If PEFR is >75% 1 hour after Rx, D/C from ED unless reasons to admit – D/W Senior ED Dr
*See D/C guidelines below*

**Urgent Critical Care referral if, despite treatment:**
- Decreasing PEFR
- Persisting/worsening hypoxia
- Raised pCO2
- pH <7.35

Admit any pt with acute severe asthma that persists after initial Rx

CXR

If no critical care needed – admit to Medical take

Inform Admitting SHO/SpR

CXR
Pre-Discharge Checks

From Emergency Dept

If PEFR is >75% 1 hour after Rx, D/C from ED unless reasons to admit – D/W Senior ED Dr

Ensure patient has supply of
- inhalers: steroid & salbutamol
- prenisolone 40mg for 5 days

Ensure pt has a PEFR chart and device
- educate them on how to use the peak flow
- advise them to note their best of 3 attempts on the chart, morning & evening

Check pts inhaler technique
- give education to improve technique if needed

Follow Up
- Advise patient to see their GP or Practice Asthma Nurse in 2 days
- Give them an ED patient info leaflet

From Medical Wards

PEFR must be >75% of best/predicted & stable
If in doubt D/W respiratory physician

On the ward, continue QDS salbutamol & ipratropium nebulisers until stopped by a senior Dr

Continue prednisolone 40mg for 5 days post exacerbation or until discontinued by senior Dr

Ensure pt has a PEFR chart and device
- educate them on how to use the peak flow
- advise them to note their best of 3 attempts on the chart, pre & post Nebs & then am & pm

Check pts inhaler technique
- give education to improve technique if needed
- Document their attempt & if education helped
- Ensure inhalers have had a review by respiratory physician (specialty Dr, Spr or consultant) or specialist nurse

Follow Up
- Give them a personalised, written D/C plan
- Arrange for patient to see their GP or Practice Asthma Nurse in 2 days
* Refer pt to Respiratory team for pre-D/C review. (book out pt RV if not possible)

Please remember to document these steps!

Previous audits show we have 5 key areas to focus on at RCH

1) PEFR in ED & prior to D/C
2) ABG’s in patients with SpO2 <92%
3) Steroids within 1 hour
4) Checking inhaler technique
5) Arranging for patients to see their GP within 1 week of discharge
3. Monitoring compliance and effectiveness

<table>
<thead>
<tr>
<th>Element to be monitored</th>
<th>Process of care – of particular interest:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>i) Peak flow at Arrival, during admission and pre-discharge</td>
</tr>
<tr>
<td></td>
<td>ii) Time to 1st dose of steroids</td>
</tr>
<tr>
<td></td>
<td>iii) Arterial Blood Gas (ABG) sampling of appropriate patients</td>
</tr>
<tr>
<td></td>
<td>iv) Checking of inhaler technique of patients admitted</td>
</tr>
<tr>
<td></td>
<td>v) Patient information prior to Discharge</td>
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</table>

<table>
<thead>
<tr>
<th>Lead</th>
<th>Dr Lisa Hoskins, Dr Christopher Pritchett</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Tool</th>
<th>BTS National audit tool</th>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Frequency</th>
<th>The BTS audit is carried out 2 yearly and RCHT data compared with national data. The above domains will be monitored annually.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Reporting arrangements</th>
<th>Audit reports will be made available to the audit committee annually</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Audit results will be presented to the respiratory physicians on an annual basis at the governance meeting of which minutes are kept.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Acting on recommendations and Lead(s)</th>
<th>Recommendations will be reported to relevant managers and clinicians for implementation</th>
</tr>
</thead>
</table>

| Change in practice and lessons to be shared | Action will be taken as necessary following collection and presentation of data after each audit cycle. Changes will be recommended by the respiratory physicians and tasks delegated to appropriate personnel |

4. Equality and Diversity

4.1. This document complies with the Royal Cornwall Hospitals NHS Trust service Equality and Diversity statement which can be found in the 'Equality, Diversity & Human Rights Policy' or the Equality and Diversity website.

4.2. Equality Impact Assessment

The Initial Equality Impact Assessment Screening Form is at Appendix 2.
### Appendix 1. Governance Information

<table>
<thead>
<tr>
<th>Document Title</th>
<th>Acute Exacerbation of Asthma in Adults Clinical Guideline V2.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date Issued/Approved:</td>
<td>11/01/2019</td>
</tr>
<tr>
<td>Date Valid From:</td>
<td>January 2019</td>
</tr>
<tr>
<td>Date Valid To:</td>
<td>January 2022</td>
</tr>
<tr>
<td>Directorate / Department responsible (author/owner):</td>
<td>Dr James Pickering, Consultant Respiratory Physician</td>
</tr>
<tr>
<td>Contact details:</td>
<td><a href="mailto:James.pickering1@nhs.net">James.pickering1@nhs.net</a></td>
</tr>
<tr>
<td>Brief summary of contents</td>
<td>Advice of management of patient presenting with acute asthma exacerbation</td>
</tr>
<tr>
<td>Suggested Keywords:</td>
<td>Asthma, asthma attack, asthma exacerbation, BTS Asthma, asthma guideline, asthma guidance, RCHT asthma</td>
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<tr>
<td>Target Audience</td>
<td>RCHT</td>
</tr>
<tr>
<td>√</td>
<td></td>
</tr>
<tr>
<td>Executive Director responsible for Policy:</td>
<td>Medical Director</td>
</tr>
<tr>
<td>Date revised:</td>
<td>January 2019</td>
</tr>
<tr>
<td>This document replaces (exact title of previous version):</td>
<td>Clinical guideline for the management of adult acute exacerbations of asthma V1.0</td>
</tr>
<tr>
<td>Approval route (names of committees)/consultation:</td>
<td>Respiratory Drs Coutts, Iles, Myers, Wijesinghe</td>
</tr>
<tr>
<td>Divisional Manager confirming approval processes</td>
<td>Anola Daniell</td>
</tr>
<tr>
<td>Name and Post Title of additional signatories</td>
<td>None</td>
</tr>
<tr>
<td>Name and Signature of Divisional/Directorate Governance Lead confirming approval by specialty and divisional management meetings</td>
<td>{Original Copy Signed}</td>
</tr>
<tr>
<td>Name: Dr. Jonathan Myers</td>
<td></td>
</tr>
<tr>
<td>Signature of Executive Director giving approval</td>
<td>{Original Copy Signed}</td>
</tr>
<tr>
<td>Publication Location (refer to Policy on Policies – Approvals and Ratification):</td>
<td>Internet &amp; Intranet ✓ Intranet Only</td>
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Acute Exacerbation of Asthma in Adults Clinical Guideline V2.0
Page 7 of 11
<table>
<thead>
<tr>
<th>Document Library Folder/Sub Folder</th>
<th>Clinical/ Respiratory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Links to key external standards</td>
<td>None</td>
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</table>
| Related Documents:               | BTS Acute Asthma guideline  
Policy for prescription and administration of emergency oxygen in adults |
| Training Need Identified?        | No                    |

**Version Control Table**

<table>
<thead>
<tr>
<th>Date</th>
<th>Versio n No</th>
<th>Summary of Changes</th>
<th>Changes Made by (Name and Job Title)</th>
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<tbody>
<tr>
<td>3 Sep 14</td>
<td>V1.0</td>
<td>Initial Issue</td>
<td>Christopher Pritchett, CT3 Dr ACCS (Anaesthetics)</td>
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<tr>
<td>Jan 2019</td>
<td>V2.0</td>
<td>No changes</td>
<td>N/A</td>
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</table>

**All or part of this document can be released under the Freedom of Information Act 2000**

This document is to be retained for 10 years from the date of expiry.

This document is only valid on the day of printing

**Controlled Document**

This document has been created following the Royal Cornwall Hospitals NHS Trust Policy on Document Production. It should not be altered in any way without the express permission of the author or their Line Manager.
Appendix 2. Initial Equality Impact Assessment Form

<table>
<thead>
<tr>
<th>Name of the strategy / policy / proposal / service function to be assessed</th>
<th>Acute Exacerbation of Asthma in Adults Clinical Guideline V2.0</th>
</tr>
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<tbody>
<tr>
<td>Directorate and service area:</td>
<td>Medicine/Respiratory</td>
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<tr>
<td>Is this a new or existing Policy?</td>
<td>Existing</td>
</tr>
<tr>
<td>Name of individual completing assessment:</td>
<td>Dr James Pickering</td>
</tr>
<tr>
<td>Telephone:</td>
<td>01872 250000</td>
</tr>
</tbody>
</table>

1. **Policy Aim**
   - **Who is the strategy / policy / proposal / service function aimed at?**
   - To improve care of patients arriving to RCH with acute exacerbation of asthma

2. **Policy Objectives**
   - To improve care of patients arriving to RCH with acute exacerbation of asthma

3. **Policy – intended Outcomes**
   - Improved care of the above patients

4. **How will you measure the outcome?**
   - National BTS audit every 2 years. Local audit every year

5. **Who is intended to benefit from the policy?**
   - Hospital staff who use the guidance for their work & patients who receive treatment

6a Who did you consult with
   - Workforce
   - Patients
   - Local groups
   - External organisations
   - Other
   - X
   - Please record specific names of groups
     - Respiratory Governance Group

   What was the outcome of the consultation?
   - Ratified

7. **The Impact**
   Please complete the following table. If you are unsure/don’t know if there is a negative impact you need to repeat the consultation step.

<table>
<thead>
<tr>
<th>Equality Strands:</th>
<th>Yes</th>
<th>No</th>
<th>Unsure</th>
<th>Rationale for Assessment / Existing Evidence</th>
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</thead>
<tbody>
<tr>
<td>Age</td>
<td>✓</td>
<td></td>
<td></td>
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Acute Exacerbation of Asthma in Adults Clinical Guideline V2.0
Page 9 of 11
### Sex (male, female, trans-gender / gender reassignment)
- ✓

### Race / Ethnic communities /groups
- ✓

### Disability - Learning disability, physical impairment, sensory impairment, mental health conditions and some long term health conditions.
- ✓

### Religion / other beliefs
- ✓

### Marriage and Civil partnership
- ✓

### Pregnancy and maternity
- ✓

### Sexual Orientation, Bisexual, Gay, heterosexual, Lesbian
- ✓

### You will need to continue to a full Equality Impact Assessment if the following have been highlighted:
- You have ticked “Yes” in any column above and
- No consultation or evidence of there being consultation - this excludes any policies which have been identified as not requiring consultation. or
- Major this relates to service redesign or development

8. Please indicate if a full equality analysis is recommended. 
- Yes 
- No  ✓

9. If you are not recommending a Full Impact assessment please explain why.

No adverse impact on any of the protected characteristics.

Signature of policy developer / lead manager / director
Dr James Pickering, Consultant Respiratory Physician
Date of completion and submission
January 2019

Names and signatures of members carrying out the Screening Assessment
1. Dr James Pickering, Consultant Respiratory Physician
2. Human Rights, Equality & Inclusion Lead
Keep one copy and send a copy to the Human Rights, Equality and Inclusion Lead
c/o Royal Cornwall Hospitals NHS Trust, Human Resources Department, Knowledge Spa,
Truro, Cornwall, TR1 3HD

This EIA will not be uploaded to the Trust website without the signature of the Human
Rights, Equality & Inclusion Lead.

A summary of the results will be published on the Trust’s web site.

Signed __ Dr James Pickering _____________

Date ______ 20/01/2019 ____________