### Step 1
**Inhaled β₂ agonist PRN**

**Aerosol Options**
- **1st line**
  - Salbutamol
  - 100mcg 2 puffs PRN
- **2nd line**
  - Salbutamol Easibreathe®
  - 100mcg 2 puffs PRN

**Dry powder Options**
- **1st line**
  - Salbutamol Easyhaler®
  - 100mcg 2 puffs BD
- **2nd line**
  - Terbutaline Turbohaler®
  - 500mcg 1 puff PRN

### Step 2
**Low dose inhaled steroid**

**Aerosol Options**
- **1st line**
  - Beclomethasone Qvar®
  - 50mcg 2 puffs BD
- **2nd line**
  - Beclomethasone Qvar®
  - Easibreathe
  - 50mcg 2 puffs BD

**Dry powder Options**
- **1st line**
  - Budesonide Easyhaler®
  - 100mcg 2 puffs BD

### Step 3
**Add in long acting β₂ agonist (LABA)**

**Aerosol Options**
- **1st line**
  - *DuoResp Spiromax®* (Budesonide/Formoterol)
  - 160/4.5 1 puff BD
- **2nd line**
  - Seretide Accuhaler® (Fluticasone/Salmeterol)
  - 100/50 1 puff BD

**Dry powder Options**
- **1st line**
  - *DuoResp Spiromax®* (Budesonide/Formoterol)
  - 160/4.5 1 puff BD

### Step 4
**High dose inhaled corticosteroid**

**Aerosol Options**
- **1st line**
  - *Fostair®* (Beclometasone/Formoterol)
  - 100/6 1 puff BD

### Maintenance And Reliever Therapy

This is an option for patients poorly controlled at step 2 or 3

**Dry Powder**
- *DuoResp Spiromax®* (Budesonide/Formoterol) 160/4.5
  - 1 or 2 puffs BD and 1 puff PRN (Max 8 puffs in 24 hours)

**Aerosol**
- *Fostair®* (Beclometasone/Formoterol)
  - 100/6 1 puff BD and 1 puff PRN (Max 8 puffs in 24 hours)

### Reference:

Guideline for the Management of Chronic Asthma in Adults  V2

Approved by MCGT December 2014


Guideline for the Management of Chronic Asthma in Adults  V2

Authors: Nicola Stevenson (Respiratory Consultant), Helena Priest and Rachael Pugh (Pharmacists)


Approved by MCGT December 2014

Review date: Sept 2018
Step 2
Usual starting dose is 200mcg BD of inhaled steroid as expressed in terms of beclometasone equivalent doses. Prior to 2009 the reference dose was beclometasone contained in CFC inhalers. Since CFC-beclometasone have been phased out the reference steroid will be BDP-HFA (Beclomethasone dipropionate - hydrofluoroalkane) equivalent, e.g. Qvar 50mcg = 100mcg BDP-HFA equivalent.

NB. BTS guidelines allow starting dose to be varied between 100 – 400mcg BD but 200mcg BD should be applicable to the vast majority of patients.

Step 3
If a patient is poorly controlled on the initial dose of inhaled steroids they should be converted to a combination of inhaled steroid and Long Acting Beta 2 Agonists (LABA) rather than trying to increase inhaled steroid dose. The evidence base favours the addition of a LABA rather than increasing the dose of inhaled corticosteroids at this step.

On the rare occasions that a patient does not respond to the addition of a LABA, it should be stopped. If patients respond but control is still inadequate, their dose of inhaled corticosteroid should be increased to 400mcg BD of BDP-HFA equivalent.

Maintenance and Reliever Therapy at Step 2 or 3
In selected patients at step 2 or 3 who are poorly controlled, the use of a single corticosteroid/formoterol inhaler as rescue medication (instead of a short acting beta 2 agonist) in addition to its regular use as a preventer treatment has been show to be an effective treatment option. When this management option is introduced the total regular dose of daily inhaled corticosteroids should not be decreased. If patients require the use of the inhaler for rescue therapy at least once daily, their regular preventer treatment should be reviewed.

Step 4 & beyond
Patients being treated at step 4 and beyond can be extremely challenging. Consideration should be given to referring for a specialist opinion to WUTH.
<table>
<thead>
<tr>
<th>Inhaled steroid equivalent dose compared to BDP-HFA equivalent</th>
<th>LABA</th>
</tr>
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<tbody>
<tr>
<td><strong>Beclometasone (dry powder)</strong> 200mcg</td>
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<tr>
<td><strong>QVAR</strong> 100mcg</td>
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<td><strong>Clenil</strong> 200mcg</td>
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