Pharmacological Management of Asthma in Adults (≥ 18 Years): Quick Summary

This is based on the revised British Thoracic Society-Scottish Intercollegiate Guidelines Network guideline1, 2, which no longer recommends the use of short-acting β2 agonist (SABA) alone for the management of asthma.

Key principles

- Patients should start treatment at the stage most appropriate to initial severity of their asthma
- Warn patients to monitor symptoms and return to clinic if no improvement
- Check concordance and reconsider diagnosis if response to treatment is unexpectedly poor
- Remind patients to return to clinic if symptoms return after stepping down
- Remember: airway hyperactivity can take up to 18 months to resolve
- Ensure patient has a personalised asthma action plan

Rhinitis is a risk factor for the development and increasing severity of asthma. Consider asthma in all patients with rhinitis. Treat both conditions.

Spacer devices3

- For patients with nocturnal asthma or poor MDI inhalation technique or requiring high doses of ICS or prone to candidiasis with inhaled ICS
- Prescribe a spacer device that is compatible with the MDI (see ‘Key to spacer devices’ overleaf)
- Patients should be advised not to switch between spacer devices as they may not be interchangeable
- They should be cleaned once a month by washing in a mild detergent and then allowed to dry in air without rinsing; the mouthpiece should be wiped clean of detergent before use
- They should be replaced every 6-12 months

Complete control of asthma1

<table>
<thead>
<tr>
<th>Daytime symptoms</th>
<th>Night-time awakening due to asthma</th>
<th>Need for rescue medication</th>
<th>Asthma attacks</th>
<th>Exacerbations</th>
<th>Limitation on activity including exercise</th>
<th>Lung function (FEV1 and/or PEF &gt; 80% predicted or best)</th>
<th>Minimal side-effects from medication</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Normal</td>
<td>With</td>
</tr>
</tbody>
</table>

Criteria for specialist referral2

- Prominent systemic features (myalgia, fever, weight loss)
- Unexpected clinical findings (e.g. crackles, clubbing, cyanosis, cardiac disease, monophasic wheeze or stridor)
- Suspected occupational asthma (symptoms that improve when patient is not at work, adult-onset asthma and workers in high-risk occupations)
- Persistent non-variable breathlessness
- Unexplained restrictive spirometry
- Poor response to asthma treatment
- Severe/life-threatening asthma attack
- Chronic sputum production
- Chest X-ray shadowing
- Diagnosis unclear
- Marked blood eosinophilia

See overleaf for pharmacological management options supported by respiratory specialists at West Suffolk Foundation Trust.

References


### Pharmacological Management

#### Stepping DOWN - Move down to find and maintain lowest controlling therapy

- Complete control needs to be achieved for 12 weeks before stepping down.
- **ICS/LABA** - Step down to the lowest dose of combination inhaler and then from a combination inhaler to a single agent ICS.
- **ICS** - Reduce ICS dose by 25 - 50%.
- After stepping down review in 12 weeks: step patient up again if symptomatic during this period.
- Stepping down before 12 weeks of control can lead to exacerbations and hospital admissions.

#### Stepping UP - Think TTT first, then move up to improve control if needed

**Before initiating a new drug therapy or stepping up, practitioners should check:**
- Compliance with existing **T**herapy.
- **I**nhaler **T**echnique.
- **T**rigger factors.

After stepping up it is recommended to review patient in 8 weeks.

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### Table: Colour coded cost

<table>
<thead>
<tr>
<th>Devices listed in cost order within the cost bracket and exclude the cost of spacers. Cost is based on 30 days of regular treatment at the specified dose.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>£4 - £6</strong></td>
</tr>
</tbody>
</table>

### Low dose ICS [BDP 400-500mcg/day]

- **a** Clenil® Modulite® (beclometasone), 100mcg/dose
- 2 doses BD [400mcg]

#### Add LABA as combination inhaler with low dose ICS [BDP 400-500mcg/day]

| Fobumix® Easyhaler® (budesonide, formoterol), 160mcg, 4.5mcg/dose* | DPI |
|---|
| 1 dose BD [400mcg]

(Consider MART if uncontrolled)

| Symbicort® Turbohaler® (budesonide, formoterol), 200mcg, 6mcg/dose | DPI |
|---|
| 1 dose BD [400mcg]

(Consider MART if uncontrolled)

| a, b Fostair® (beclometasone, formoterol), 100mcg, 6mcg/dose | DPI |
|---|
| 1 dose BD [500mcg]

(Consider MART if uncontrolled)

#### MART

- Fobumix® Easyhaler®
- Symbicort®
- Fostair®

ONE additional dose PRN up to a maximum of 8 doses daily* (this includes the regular dose)

### Benefit from LABA but control inadequate

- If control still inadequate, consider:
  1. Adding montelukast 10mg tablet each evening OR
  2. Adding Spiriva® Respimat® (tiotropium), solution for inhalation, 2.5mcg/dose – 2 doses OD

### If absolutely no response to LABA

(Specialists at WSFT advise that this is an unlikely scenario)

- Increase dose of ICS - medium dose [BDP 800-1000mcg/day] as combination inhaler with LABA

- Increase dose of ICS - medium dose [BDP 800-1000mcg/day] and stop LABA

### Increase dose of ICS - high dose [BDP 1600-2000mcg/day]

- a, b Fostair® (beclometasone, formoterol), 200mcg, 6mcg/dose
- 2 doses BD [2000mcg]

**MMT** (Seek specialist advice before initiating)

- a Fobumix® Easyhaler® (budesonide, formoterol), 320mcg, 9mcg/dose*
- 2 doses BD [1600mcg]

### Abbreviations

- **BD** – Twice daily
- **BDP** – Beclometasone dipropionate
- **DPI** – Dry powder inhaler
- **FEV**₁ – Forced expiratory volume in 1 second
- **ICS** – Inhaled corticosteroid
- **LABA** – Long-acting β₂ agonist
- **MART** – Maintenance & reliever therapy
- **MDI** – Metered dose Inhaler
- **OD** – Once daily
- **PEF** – Peak expiratory flow
- **PRN** – When required

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*Delivered dose: The dose that leaves the mouthpiece

**Notes**

- **Corticosteroid safety card** recommended
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**Prices correct at August 2018**

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**Key to spacer devices**

- **a** AeroChamber Plus® standard device with mouth piece (£4.90) / with mask (£8.17)
- **b** AeroChamber Plus® Flow Vu® antistatic device with mouth piece (£5.22) / with mask (£8.72)
- **c** Volumatic® standard device with mouth piece (£3.88)