Disclaimer
This guideline is registered at North Central London (NLC) Joint Formulary Committee (JFC) and is intended solely for use by healthcare professionals to aid the treatment of patients within NCL. However, clinical guidelines are for guidance only, their interpretation and application remain the responsibility of the individual clinician. If in doubt, contact a senior colleague or expert. Clinicians are advised to refer to the manufacturer’s current prescribing information before treating individual patients.

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NCL JFC is funded by and provides advice to Acute Trusts and Clinical Commissioning Groups in NCL.
### Step One
Occasional relief bronchodilator

Inhaled SABA as required

- Move to Step Two if needed more than twice per week, or if night-time symptoms at least one per week or if exacerbation in last two years

#### Salbutamol 100 mcg/inh
- One to two puffs PRN
  - £1.50/200 doses
  - Aerochamber Plus £4.81 / Volumatic £3.81

#### Terbutaline 500 mcg/inh (Turbohaler®)
- One puff PRN
  - £6.92/100 doses

#### Salbutamol 200 mcg/inh (Accuhaler®)
- One puff PRN
  - £3.00/60 doses

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### Step Two
Regular inhaled preventer therapy

#### Add in:
- regular standard-dose ICS (BDP 200 to 400 mcg/day)
  - Start ICS at dose appropriate to disease severity

#### Beclometasone dipropionate (Clenil Modulite)
- 100 mcg/inh
  - Two puffs BD £4.16/month
  - (BDP 400 mcg/day)
  - Aerochamber Plus £4.81 / Volumatic £3.81

#### Budesonide 200 mcg/inh
- (Turbohaler®)
  - 1 puff BD £6.63/month
  - (BDP 400 mcg/day)

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### Step Three
Initial add-on therapy

#### Flutiform® (fluticasone propionate and formoterol fumarate)
- 50 mcg/5 mcg
  - Two puffs BD £13.44/month
  - (BDP 400 mcg/day)
  - Aerochamber Plus £4.81

#### DuoResp® Spiromax® (budesonide and formoterol fumarate)
- 160mcg/4.5 mcg
  - One puff BD £13.99/month
  - (BDP 400 mcg/day)

#### Symbicort® Turbohaler® (budesonide and formoterol fumarate)
- 200mcg/6 mcg
  - One puff BD £17.73/month

#### Fostair® (budesonometasone dipropionate and formoterol fumarate)
- 100 + 6 mcg/inh MDI or NEXThaler®
  - One puff BD £13.68/month
  - (BDP 500 mcg/day)
  - Aerochamber Plus £4.81 (with MDI)

#### Flutiform® (fluticasone propionate and formoterol fumarate)
- 125 mcg/5 mcg
  - Two puffs BD £26.13/month
  - (BDP 1000 mcg/day)
  - Aerochamber Plus £4.81

#### DuoResp® Spiromax® (budesonide and formoterol fumarate)
- 160mcg/4.5 mcg
  - Two puffs BD £27.97/month
  - (BDP 800 mcg/day)

#### Symbicort® Turbohaler® (budesonide and formoterol fumarate)
- 200mcg/6 mcg
  - Two puffs BD £35.47/month
  - (BDP 800 mcg/day)

#### Fostair® (budesonometasone dipropionate and formoterol fumarate)
- 100 + 6 mcg/inh MDI or NEXThaler®
  - Two puffs BD £27.37/month
  - (BDP 2000 mcg/day)
  - Aerochamber Plus £4.81 (with MDI)

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### Step Four
Persistent poor control

- Increase ICS dose:
  - to regular high-dose ICS
  - and see BTS guidance for add in therapies

**SABA** – short acting B2 agonist
**LABA** – long acting B2 agonist
**ICS** – inhaled corticosteroid
**Low dose ICS** – BDP equivalent 200 – 800 mcg/day
**Intermediate dose ICS** – BDP equivalent 800 mcg to 1000 mcg/day
**High dose ICS** – BDP equivalent > 1000 mcg
**BDP** – Beclometasone dipropionate equivalent
**MDI** – Metered dose inhaler
**DPI** – Dry powder inhaler

- Combination inhalers and beclometasone steroid inhalers should be prescribed by brand
- For uncontrolled patients at step 2 where considering adding in another drug, first check adherence and inhaler technique.
- When prescribing or supplying an inhaler, you must ensure the patient has been shown how to use the device and has demonstrated satisfactory technique. When device is changed, patient needs to be monitored (e.g. peak flow at home and recall to practice nurse to review)
- Switching inhalers may be suitable for many patients, but it is important to discuss this with the patient beforehand and to ensure they know how to use their new device.
- Consider the beclometasone dipropionate equivalence when switching between inhalers. The beclometasone in Fostair® is more potent than that in Clenil® (100 mcg in Fostair® = 250 mcg in Clenil®)
- Review treatment every 3 months; if control is achieved, stepwise reduction may be possible. Reduce dose of inhaled corticosteroid slowly (up to 50% reduction every 3 months)
Make every contact count

- Quit Smoking is treatment: ask every asthmatic if they smoke and offer referral and support to stop
- Review diagnosis and proactively ‘step down’ therapy in line with BTS guidelines whenever clinically appropriate- provide an Inhaled Corticosteroid (ICS) safety card for every patient on high dose ICS
- Discuss inhaler concordance before changing therapy – over or under use may be a sign of poor control and inhalers are a leading cause of medicines waste
- Review and optimise inhaler technique – work with patients on choice and technique - no MDI without a spacer.
- Every patient should have a Personal Asthma Action Plan

* Step Four (continued)

Some patients referred to the Severe Asthma Service may be transferred to a therapeutically appropriate dose of ICS and LABA using Seretide Accuhaler® or Flixotide Accuhaler® devices. This device will allow an INCA device to be attached, which can be used to monitor the patient’s use of the inhaler device and inform inhaler device technique training. GPs will be asked to continue prescribing of this inhaler device for these patients. To ensure patients receive one inhaler type, it would be sensible that these patients receive a salbutamol Accuhaler.

Use of LABA/ICS combinations as maintenance and reliever

Some LABA/ICS combination inhalers are licensed for use as maintenance and reliever therapy. These may be recommended at BTS step 3 and above by a specialist, GP with Specialist Interest or Practice Nurse with recognised asthma qualification, with continuation of prescribing in primary care.

NHS England Inhaled Corticosteroid Cards

The London Respiratory Network has designed safety cards to issue to patients on high doses of inhaled corticosteroids. Guidance and information on ordering these cards can be found here:


The beclomethasone dipropionate equivalent dose should be considered when switching inhalers containing inhaled corticosteroid

## Steroid and LABA Inhaler Comparative Costs

<table>
<thead>
<tr>
<th>Drug Name (Brand)</th>
<th>Device Name</th>
<th>Device Type</th>
<th>Patent Expiry</th>
<th>Device Cost</th>
<th>Number of Doses</th>
<th>Indicative dose</th>
<th>Cost per Day</th>
<th>Cost per 28 days</th>
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<tbody>
<tr>
<td>Fluticasone propionate 50mcg and formoterol 5mcg/inh (Flutiform®)</td>
<td>MDI</td>
<td>01/08/2024</td>
<td>£14.40</td>
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<td>2 puffs BD</td>
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<td>DPI</td>
<td>13/07/2021</td>
<td>£29.32</td>
<td>120</td>
<td>2 puffs BD</td>
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<td>£29.32</td>
<td>120</td>
<td>2 puffs BD</td>
<td>£0.98</td>
<td>£27.37</td>
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<td>Beclomethasone dipropionate 200mcg and formoterol 6mcg/inh (Fostair®)</td>
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<td>NEXThaler®</td>
<td>DPI</td>
<td>£29.32</td>
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<td>2 puffs BD</td>
<td>£0.98</td>
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Doses are presented for indicative price purposes only; this does not indicate therapeutic equivalence.