**HERTFORDSHIRE MEDICINES MANAGEMENT COMMITTEE (HMMC)**

**BECLOMETASONE / FORMOTEROL (FOSTAIR® MDI) FOR COPD - RECOMMENDED**

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<td>Beclometasone / formoterol (Fostair®)</td>
<td>combination inhaler: beclometasone (ICS) &amp; formoterol fumarate dihydrate (LABA)</td>
<td>COPD</td>
<td>November 2014</td>
<td>Final</td>
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**HMMC Recommendation:** beclometasone / formoterol (Fostair®) combination inhaler is **RECOMMENDED** as 1st line LABA/ICS MDI treatment choice for prescribing in COPD.

Consider switching COPD patients on Seretide 250/25 Evohaler® to Fostair® MDI when treatment is being reviewed. Switching guidance & algorithm will be developed to support this.

**EFFICACY**
- Studies have demonstrated that beclometasone/formoterol (Fostair®):
  - vs budesonide/formoterol in severe COPD over 48 weeks:
    - non-inferior in improving morning lung function
    - no significant difference in the rate of COPD exacerbations/patient/year
  - vs fluticasone/salmeterol in moderate to severe COPD over 12 weeks:
    - equivalent in improving dyspnoea

**SAFETY**
- Constituent ingredients have been available for many years so their safety profile is known
- SPC reports common adverse effects as pharyngitis, oral candidiasis, headache and dysphonia
- Licensed dose of ICS for beclometasone/formoterol (Fostair®) is lower than the other LABA/ICS MDIs used off-label for COPD

**COST**
- Cost/patient/year: £357
- Fostair® is lower cost than the two current LABA/ICS MDIs used off-label for COPD
- Savings possible from 1st line use of Fostair® as MDI choice & switching from more expensive LABA/ICS inhalers
- No cost-effectiveness analysis available

**PATIENT FACTORS**
- Like other MDIs can be used with a spacer to improve lung deposition
- After dispensing: refrigeration not required and has 5 month shelf-life (do not store above 25°C)
- Contains a small amount of alcohol. Each actuation contains 7mg of ethanol. Should not be used if there is a need to avoid alcohol

**Background Information for Fostair®**
- Contains beclometasone dipropionate ([BDP] an inhaled corticosteroid [ICS]) and formoterol fumarate dihydrate (long-acting β₂ agonist [LABA])
- Was recently licensed for people with severe COPD & history of repeated exacerbations, who have significant symptoms despite regular therapy with long-acting bronchodilators.
- First pressurised metered dose inhaler (MDI) licensed for COPD (others are dry powder inhalers (DPIs))
- Each metered dose contains 100 micrograms of beclometasone and 6 micrograms of formoterol
- SPC advises that the particles of BDP in Fostair® are extrafine and more potent than standard formulations: 100 micrograms of extrafine BDP in Fostair® equivalent to 250 micrograms standard BDP.
- Recommended dose for COPD is two inhalations twice daily.
- Before dispensing Fostair® requires storage in a refrigerator (2-8°C) (for a maximum of 15 months).
- After dispensing: refrigeration not required: do not store above 25°C (for a maximum of 5 months).

This HMMC recommendation is based upon the evidence available at the time of publication. The recommendation will be reviewed upon request in the light of new evidence becoming available.
## Assessment against Ethical Framework

### Evidence of Clinical Effectiveness
- Refer to efficacy and safety boxes.
- Studies have demonstrated that beclometasone/formoterol:
  - vs budesonide/formoterol in severe COPD over 48 weeks:
    - non-inferior for improving pre-dose morning forced expired volume in 1 second (FEV1) (difference 0.002 L, lower limit of 97.5% confidence interval [CI] −0.052 L).
    - similar in terms of the rate of COPD exacerbations/patient per year (0.414 vs 0.423 (not statistically significant)).
    - number of patients with exacerbations needing hospital admission was statistically significantly higher for beclometasone/formoterol vs budesonide/formoterol (13 [5.6%] vs 7 [2.9%, p<0.001]). Numbers of exacerbations were lower than expected & analyses may have been underpowered.
  - vs fluticasone/salmeterol in moderate to severe COPD:
    - equivalent in terms of improvement in Transition Dyspnoea Index (TDI) scores over 12 weeks (mean 1.32 vs 1.15, p=0.56).
    - statistically significantly faster for onset of bronchodilation (mean difference in area under the curve from 0–30 minutes [AUC0-30min] 0.07 L, p<0.001). Unclear if clinically important.
- Safety:
  - Study vs fluticasone/salmeterol: serious adverse events more common with fluticasone/salmeterol
  - Study vs budesonide/formoterol: incidence of adverse events did not differ significantly between groups

### Cost of treatment and Cost Effectiveness
- Refer to cost box
- Fostair® is also lower cost than DPIs used for COPD (apart from Relvar® which is currently not recommended)
- Annual savings if 10% prescriptions for Seretide 250/25 Evohaler® were for Fostair®: ENHCCG: £90k; HVCCG: £65k
- No cost-effectiveness analysis available

### The needs of the population
- Refer to patient factors box.
- Needs of the population appear to be low as there are a range of available alternative ICS/LABA combination inhalers.
  - The licensed dose of ICS for beclometasone/formoterol (Fostair®) is lower than other MDIs used off-label for COPD (fluticasone/salmeterol (Seretide 250/25 Evohaler®), fluticasone/formoterol (Flutiform® 250/10)) - BDP equivalence 1000 micrograms (medium strength) vs 2000 micrograms (high strength). Use of Fostair® would expose patients to a lower dose of ICS (side-effects of high dose ICS are well known).
  - Like all other LABA/ICS combination inhalers (except Relvar®) is administered twice daily.

### The needs of the community
- The needs of the community may be large as large numbers of patients are indicated for LABA/ICS treatment in COPD.
- Fostair® is lower cost than the 2 current LABA/ICS MDIs used off-label for COPD and the current 1st line LABA/ICS DPI choice used for COPD. There is the potential for cost savings for the health economy.

### Policy Drivers
- Hertfordshire COPD guidelines: specify LABA/ICS inhaler choices.
- Scottish Medicines Consortium: Approved for use following an abbreviated submission.

### Equity
- No issues identified.

### Implementability
- No issues anticipated.

## References
- NICE Evidence Summary New Medicines: COPD: beclometasone/ formoterol (Fostair®) (Sep 2014)
  - [http://www.nice.org.uk/advice/esnm47](http://www.nice.org.uk/advice/esnm47)