

## Maintenance and Reliever Therapy (MART) Norfolk and Waveney Guidance

### What is MART?

- A **single inhaler** containing both an **inhaled corticosteroid (ICS)**, to *reduce inflammation*, and a **fast, but long acting beta<sub>2</sub> agonist (LABA)**, i.e., **formoterol**, as the *bronchodilator*.
- Used for **both daily maintenance** therapy **AND** the **relief of symptoms as required (PRN)**
- **Formoterol replaces** the 'blue' **short acting beta<sub>2</sub> agonist (SABA)**. It works **as fast as salbutamol** to relieve symptoms.
- A **MART inhaler regimen delivers a dose of ICS at the same time as the reliever (formoterol)** when used to treat symptoms. This reduces inflammation (increased eosinophils) caused by triggers, reduces symptoms, improves asthma control, **and reduces the risk of an asthma attack**.
- A **MART** regimen also **reduces the risk of SABA overuse** for asthma.  
'Regular use of SABA, even for 1-2 weeks, is associated with increased airway hyperresponsiveness, reduced bronchodilator effect, increased allergic response, increased eosinophils (e.g. Hancox, 2000; Aldridge, 2000)'. 'This can lead to a vicious cycle encouraging overuse' [\[Gina 2022\]](#)
- See overleaf for ICS / LABA inhalers which are licensed for MART and formulary status.

### Which patients can be offered MART? See [Norfolk and Waveney Primary Care Asthma Resources](#)

- **MART is an option** for asthma treatment, if the patient is uncontrolled on a low (age appropriate) dose of ICS, with or without an additional leukotriene receptor antagonist (LTRA montelukast) [NICE NG80 Asthma](#)
- **The patient must be able to understand and adhere to a MART regimen.**
- Patients age  $\geq 12$  years: *can be initiated in primary care by a clinician with respiratory expertise\**
- Patients age  $< 12$  years (check product licence): *by, or on the advice of, a respiratory specialist.*

\*Primary Care Respiratory Society : Fit to Care This could include *experienced* primary care clinicians

### Advice to patients [MART top tips \(PCRS\)](#), [NHS videos](#) to support patient discussions

- ALL patients should have a **Personalised Asthma Action Plan (PAAP)** which includes **specific MART regimen advice**. [MART action plans \(PCRS\)](#) [MART action plan \(Asthma + Lung UK\)](#)
- The action plan should clearly explain.
  - The number of doses to take as the **regular maintenance dose**.
  - **What to do**, how many doses and other actions to take, **if symptoms occur**
  - **What to do** in the event of an '**asthma attack**'.
- **The need to book a review if regularly using extra doses of the MART inhaler.**
- Patients should 'rinse and spit' after regular maintenance doses, but this is not required after 'PRN' doses *unless high risk for oral candidiasis* (Prof. Helen. K.Reddel MBBS, PhD GINA board of directors).
- Patients should ideally have two of their MART inhalers: '**keep one with you all the time**, and **one at home** for maintenance doses (e.g. next to toothbrush or bed)

### What about SABAs?

- The use of a separate SABA is **not** required. **Formoterol replaces the need for a SABA**.
- **For patients who are unsure about moving to a MART regimen**, consider allowing them to keep one SABA 'blue' inhaler, *for reassurance only*, until their next review. *But remove it from their repeat. If they use their SABA, re-consider their suitability for a MART regimen.*

















### Acute exacerbations and MART regimens, advice to give patients.

- Follow your **personalised MART action plan**.
- **If your symptoms do not improve after your maximum allowed 'extra doses' (usually 6 extra doses) you should call 999 / access emergency services urgently**
- If symptoms improve, you should still make an urgent appointment with your GP practice to review your asthma treatment, in addition to continuing your regular maintenance dose.

# Inhalers licensed<sup>1</sup> for Maintenance and Reliever Therapy (MART)

Ideally use **In-check® Dial G16** (or similar / trainer device) to ensure the patient will be able to use the device.

**Technique DPIs: quick and deep** (2 – 3 sec) *min 30l/min* **pMDIs: slow and steady** (3 – 5 sec)

Inhaler Device <small>Click name for link to <a href="#">SPC</a> dose information. All devices listed below have dose counters</small>	Image	Video QR Asthma + Lung UK	Age licence for MART	Cost per dose <sup>2</sup>	Additional information
<b>Norfolk and Waveney preferred formulary 1<sup>st</sup> choice options – Dry Powder inhalers (DPIs) are 1<sup>st</sup> line lower carbon device. Pressurised metered dose inhalers (pMDIs) only for patients who are unable to use a DPI.</b>					
<b>DPI <a href="#">WockAIR® (160 / 4.5mcg)</a></b> <i>Forspiro device</i> Budesonide / formoterol 120 doses			≥ 12yrs	£0.16	2 x 60 dose per 120 dose pack – <i>useful for extra devices</i> Device video <a href="#">link</a>
<b>DPI <a href="#">Fobumix Easyhaler® 80 &amp; 160mcg/6mcg</a></b> Budesonide / formoterol 120 doses			≥ 12yrs	£0.18	DPI but requires shaking before use. <b>Carbon neutral</b> Device video <a href="#">link</a>
<b>pMDI <a href="#">Luforbec® 100 / 6mcg</a></b> <i>Extrafine</i> beclometasone / formoterol 120 doses <i>Use with a spacer, see QR link</i>			≥ 18yrs	£0.12	<b>Carbon neutral</b> Device video <a href="#">link</a>
<b>pMDI <a href="#">Bibecfo® 100 / 6mcg</a></b> <i>Extrafine</i> beclometasone / formoterol 120 doses <i>Use with a spacer, see QR link</i>			≥ 18yrs	£0.12	Device video <a href="#">link</a>
<b>Alternative options</b> if the devices listed above are not appropriate					
<b>DPI <a href="#">Fostair NEXThaler® 100 / 6mcg</a></b> <i>Extrafine</i> beclometasone / formoterol 120 doses			≥ 18yrs	£0.24	<b>Carbon neutral</b> Device video <a href="#">link</a>
<b>DPI <a href="#">DuoResp Spiromax® 160mcg/4.5mcg</a></b> Budesonide / formoterol 120 doses			≥ 12yrs	£0.23	Device video <a href="#">link</a>
<b>DPI <a href="#">Symbicort Turbohaler® 100 &amp; 200mcg/6mcg</a></b> Budesonide / formoterol 120 doses			100/6 ≥ 6yrs 200/6 ≥ 12yrs	£0.23	Delivered doses = 80/4.5mcg & 160/4.5mcg Device video <a href="#">link</a>
<b>pMDI <a href="#">Fostair® 100 / 6mcg</a></b> <i>Extrafine</i> beclometasone / formoterol 120 doses <i>Use with a spacer, see QR link</i>			≥ 18yrs	£0.24	<b>Carbon neutral</b> Device video <a href="#">link</a>

## Prescribing tips:-

**Read code:** *single inhaler maintenance and reliever therapy started. Directions: include regular maintenance dose and extra doses if needed for symptoms as per MART action plan.*

**Script note / patient text:** *Refer to MART action plan as agreed with your asthma clinician.*

**Repeat quantity:** adequate for maintenance dose but *total* maximum number of inhalers / issues per year should allow for the agreed appropriate number of extra inhaler(s) allowed per year for symptom relief. *E.g. for SystmOne exceeding the maximum allowed issues would prompt repeat clerks to alert a designated respiratory clinician that a review may be required / patient contact to check asthma control.*

References: 1. List above **excludes** digital inhalers & inhalers with **very high** carbon footprint. Electronic Medicines Compendium (EMC) click [here](#) 2. dose = one dose / inhalation as per the specific device age licensed MART regimen, cost April 2024.