

# Medicines Optimisation **intervention brief**

<b>Title of Intervention:</b>
Reducing the environmental impact of inhalers.
<b>WHAT?</b>
<ul style="list-style-type: none"> <li>Review inhalers during a patient's annual COPD or asthma review and consider suitability for switch to lower carbon footprint inhalers.</li> <li>Encourage patients to reduce inhaler waste and return inhalers for recycling or safe destruction.</li> </ul>
<b>WHY?</b>
<ul style="list-style-type: none"> <li>The propellants in pressurised metered dose inhalers (pMDIs or MDIs) are responsible for around 3.5% of all NHS emissions.</li> <li>The NHS has committed to reducing its carbon footprint by 51% by 2025 to meet Climate Change Act targets, including a shift to dry powdered inhalers (DPIs) to deliver a reduction of 4%.</li> <li>DPIs generally have a lower carbon footprint compared to pMDIs.</li> <li>1 dose of a pMDI device is approximately equivalent to the same carbon footprint as driving 1.7 miles in the average car compared to 0.07miles for 1 dose of a DPI device.</li> <li>West Hampshire CCG has a high percentage of MDIs compared to DPIs (excluding salbutamol).</li> <li>If an inhaler recycling scheme is not in place, incinerating and safely destroying remaining propellants in inhalers is less damaging to the environment than disposing of them in household waste (resulting in them degrading in landfill).</li> <li>Percentage of MDIs (except salbutamol) is included as a measure in the Investment and Impact Fund of the PCN DES. This indicator is worth £5K for an average PCN.</li> </ul>
<b>WHO?</b>
<ul style="list-style-type: none"> <li>All adult patients at their annual COPD or asthma review. (An MDI plus a spacer is the first line device recommended for children aged 5 to 15 years requiring an inhaled corticosteroid for chronic asthma. Therefore, this intervention is targeted at adults)</li> <li>All adult patients identified as using more inhalers than expected.</li> </ul>
<b>TIPS?</b>
<ul style="list-style-type: none"> <li>Target patients who are already prescribed a combination of pMDIs and DPIs as they may be most suitable for switching pMDI to DPI.</li> <li>Exclude short acting beta 2 agonists (e.g. salbutamol) as DPI's may not be suitable in the event of an acute attack.</li> <li>If a patient is using separate single component pMDIs and unsuitable for a switch to a DPI, consider a combination pMDI device. This will reduce overall numbers of inhaler items used.</li> <li>Fostair (beclometasone dipropionate and formoterol) 100/6 has the highest number of MDIs prescribed (10,772 items) in WHCCG, so, for appropriate patients, a switch to Fostair Nexthaler (DPI) which costs the same, would be a good starting point.</li> <li>Budesonide Easyhalers are generally better value than beclomethasone Easyhalers and therefore several cost-saving/ low-cost switches involve changing from beclometasone to</li> </ul>

budesonide.

- Environmental impact of inhalers is a prescribing measure on the OpenPrescribing site and prescribing data is available here: [https://openprescribing.net/measure/environmental\\_inhalers/](https://openprescribing.net/measure/environmental_inhalers/)
- Videos instructing patients how to use their inhalers which can be sent as text message links are available from:
  - <https://www.asthma.org.uk/inhalervideos>
  - <https://www.rightbreathe.com/>
- Instructional videos that can be embedded into a practice website are available from: <https://www.prescqipp.info/our-resources/webkits/respiratory-care/>. These cannot be texted directly to the patient, as a registration to the website is required.

## HOW?

- Establish links with practice nurses and healthcare professionals conducting asthma and COPD reviews.
- Using clinical searches provided by the Medicines Optimisation team, target reviews specifically at
  - Patients using more than 13 x 120-dose MDIs or 9 x 200-dose MDIs in a 12 month period
  - Patients using more than 1 single component MDI
  - Patients already on a DPI that also have MDIs prescribed (excluding salbutamol)
- Encourage asthma patients to read the [NICE patient decision aid](#) prior to their annual review.
- Consider switch from pMDI to DPI if the patient is able to breathe in through their mouth quickly and deeply over 2 to 3 seconds. Use an In-Check device where available to confirm suitability.
- Encourage patients to return their inhalers to a pharmacy participating in a recycling scheme.
- Participating pharmacies can be found here: [www.pharmacyfinder.completethecycle.eu](http://www.pharmacyfinder.completethecycle.eu)
- NB: some areas of Hampshire are not covered by the scheme. It is currently at capacity and not allowing any more pharmacies to register. If a recycling scheme is not readily available locally, advise patients to return used inhalers to their local pharmacy for safe destruction.
- Ensure patients are aware how many doses are contained within their inhaler and how long this is expected to last to avoid discarding inhalers that still contain doses.

## SO WHAT?

- Reduces carbon footprint from inhaler use and optimises patients' therapy.

## FURTHER INFORMATION

1. NICE patient decision aid: Inhalers for asthma:  
<https://www.nice.org.uk/guidance/ng80/resources/inhalers-for-asthma-patient-decision-aid-pdf-6727144573>
2. NICE patient decision aid user guide and data sources:  
<https://www.nice.org.uk/guidance/ng80/resources/inhalers-for-asthma-patient-decision-aid-user-guide-pdf-6727144574>
3. PrescQipp hot topic Lowering the carbon footprint – February 2020 (Subscription required to access): <https://www.prescqipp.info>
4. Wilkinson AJK, Braggins R, Steinbach I, Smith J. Costs of switching to low global warming potential inhalers. An economic and carbon footprint analysis of NHS prescription data in England. *BMJ Open*. 2019 Oct;9(10):e028763. DOI: 10.1136/bmjopen-2018-028763.  
<https://bmjopen.bmj.com/content/9/10/e028763>
5. <https://greeninhaler.org/>