

Pharmacist-led Greener Asthma Reviews

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Background

- There has been a societal shift towards sustainability and a drive towards net zero. Action is required to prevent (or lessen the impact of) the impending climate crisis.
- The health service contributes around 4-5% of UK carbon emissions, and the NHS in England has set a goal of becoming the world's first net zero health service by 2045.
- The NHS in England, Scotland and Wales have each developed action plans to help them achieve net zero, but the Department of Health in Northern Ireland is yet to set a target date. [BMA 2024]
- Medicines account for 25% of all NHS carbon emissions, and inhalers alone account for 3% of this. [NHS 2024]
- Climate change poses a risk to everyone's health. Patients with asthma are at greater risk due to more frequent extreme weather events. [Asthma+Lung UK 2024]



www.bma.org.uk/what-we-do/population-health/protecting-people-from-threats-to-health/more-support-needed-to-help-the-nhs-reach-net-zero#:~:text=The%20health%20service%20contributes%20around,of%20the%20public%20sector's%20emissions.
www.england.nhs.uk/greenernhs/a-net-zero-nhs/areas-of-focus/#:~:text=Medicines%20account%20for%20about%202 5,which%20account%20for%20around%203%25.
www.asthmaandlung.org.uk/conditions/asthma/asthma-triggers/thunder#:~:text=Sudden%20changes%20in%20weather&text=So%20can%20extreme%20weather%20events,for%20any%20type%20of%20weather.

Objectives

- To set up a pharmacist-led asthma review clinic in Castle Practice, Carrickfergus.
- To implement the recommendations from the GINA 2023/24 Strategy Report.
- To reduce the number of short-acting beta-agonist (SABA) inhalers prescribed.
- To achieve a reduction in the indicative carbon footprint of inhalers prescribed.



Project Details

- A pharmacist-led asthma review clinic was set up, supported by a trainee-nursing associate (TNA).
- Data collection occurred during the initial six asthma review clinics, carried out in February 2024.
- 6% of patients on the asthma register (n = 65) were reviewed & 63% of these (n =41) required medication changes.

Outcomes

Figure 1
Changes made at review

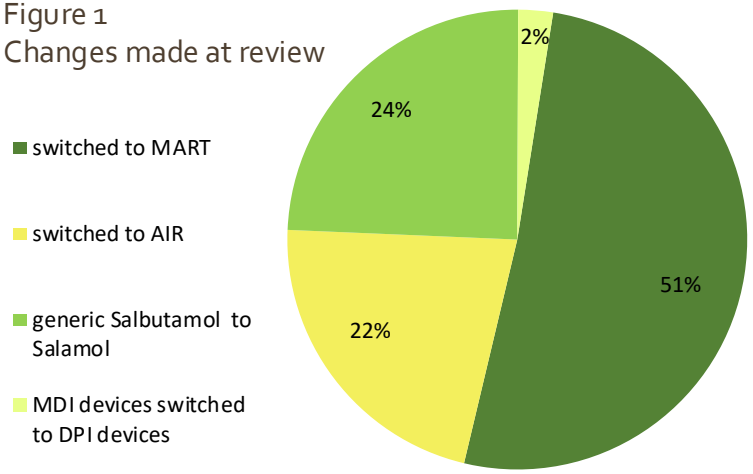
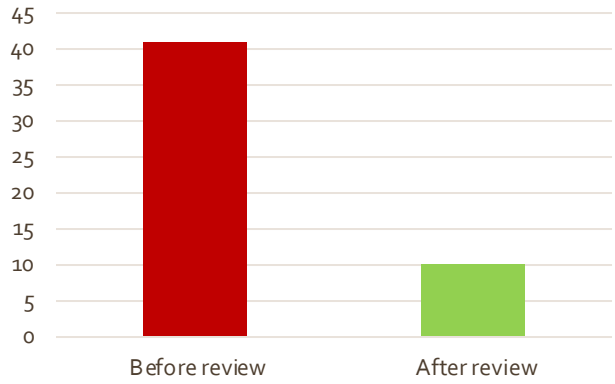


Table 1 - Number of SABAs Prescribed



- 73% of the patients who required medication changes were switched to a single inhaler device, using MART or AIR therapy.
- Patients who were prescribed Ventolin or generic Salbutamol inhaler before the review were switched to Salamol inhaler after the review.
- 41 patients were prescribed a SABA inhaler before the review, compared to just 10 patients after the review.
- There was a 76% reduction in SABA inhaler prescribing, for patients reviewed during this project.

Outcomes (continued)

Table 2 - Number of Inhalers Prescribed by Type

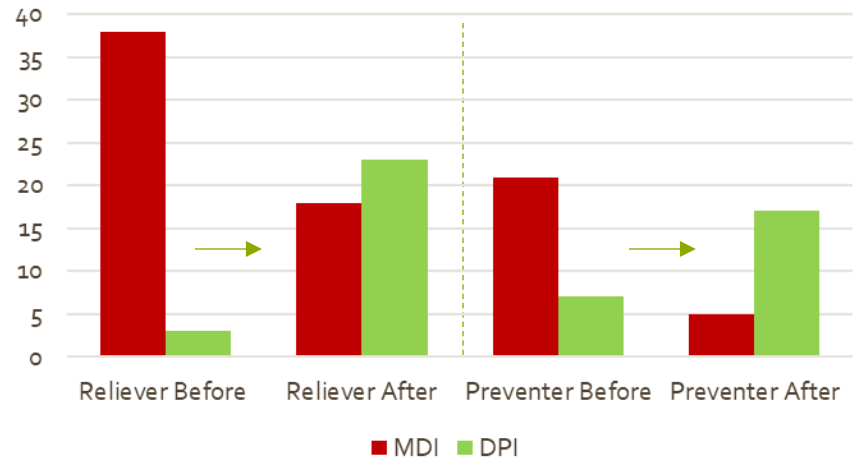
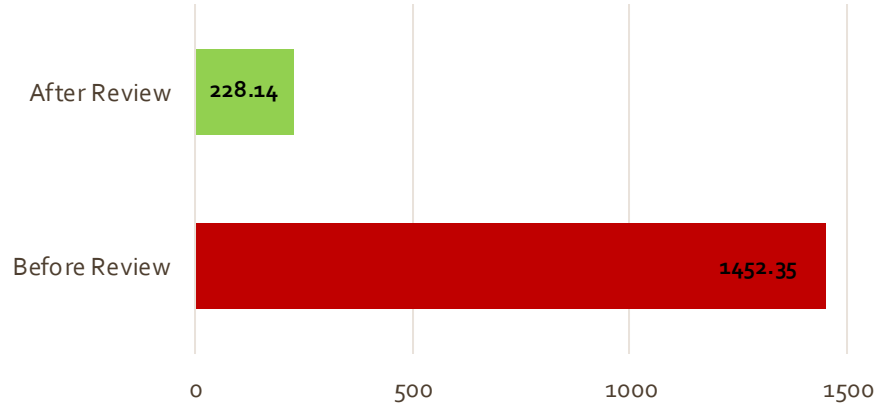
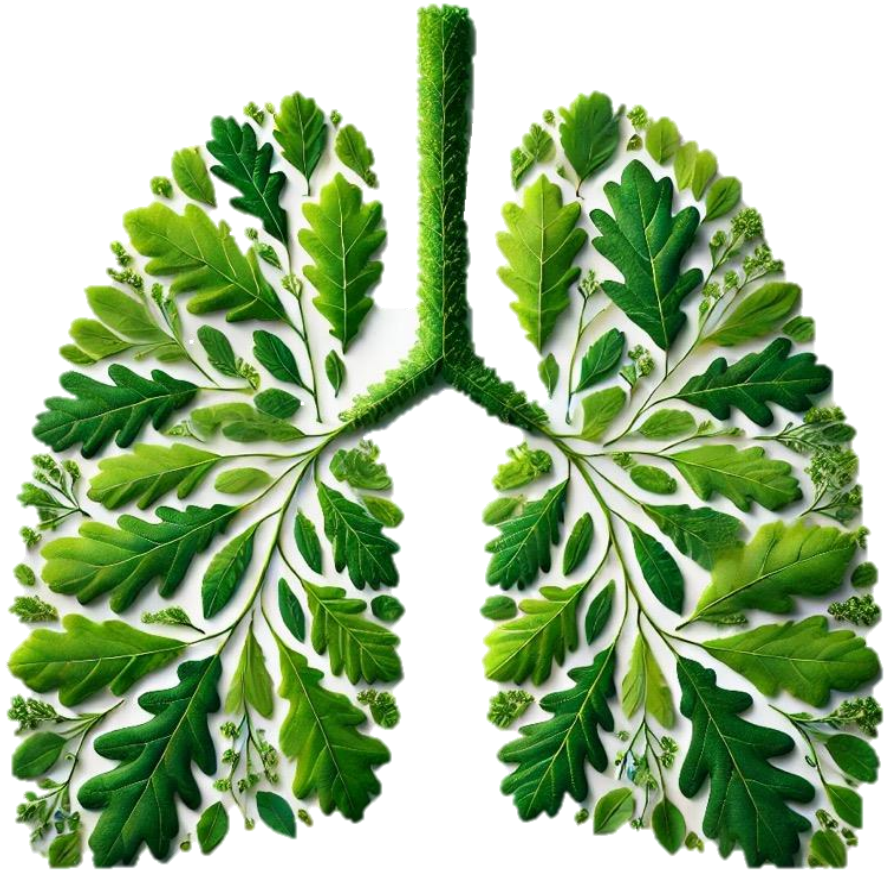


Table 3 - Indicative carbon footprint /inhaler (Kg CO2e)



- Before this project, out of the 65 patients who were reviewed, 59 were prescribed MDIs and 10 were prescribed DPIs.
- After the project, patients were prescribed 23 MDIs and 40 DPIs.

- The changes made following the asthma reviews reduced the indicative carbon footprint per inhaler prescribed by 84%.
- **Almost 1 million kilograms of CO2e could be saved if all the patients on the practice asthma register were reviewed & similar changes were made (=~400 return flights from Belfast to Florida!)**



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How else can we make primary care more sustainable?

- De-prescribe!
- Pharmaceutical recycling schemes
- Prescribe tablets or capsules to children
- Prescribe re-usable insulin pens

- Recycle
- Turn off lights
- Turn the heating down
- Use paper or re-usable water cups
- Send documents electronically
- Reduce number of patient visits to practice

Useful resources: NI Formulary - Greener Practice - Our Health Our Planet - Greener Primary Care Pharmacy Association - PrescQIPP Bulletin 295 - Centre for Sustainable Healthcare