Inhaler carbon footprint briefing

The Climate Change Act 2008 (2050 Target Amendment) Order 2019 sets out the UK government's target for net zero emissions of greenhouse gases by 2050.[1] All four UK health services have committed to achieving this target.[1-6] Lowering the inhaler carbon footprint has been identified as an objective in supporting ambitions towards achieving net zero carbon emissions in England, Wales and Scotland.[1-5]

The PrescQIPP inhaler carbon footprint resources update the PrescQIPP inhaler carbon footprint data table and include information on inhaler carbon emissions, national net zero targets, review the clinical evidence for lowering the inhaler carbon footprint, and provides practical advice on reducing inhaler carbon emissions.

Key recommendations

- NHS organisations should use the PrescQIPP inhaler carbon footprint data tool and visual data pack to determine how their inhaler carbon footprint prescribing data compares to the national or local average and identify priority areas for clinically appropriate inhaler carbon footprint reductions.
- Agree the organisational medicine optimisation strategies to support lowering inhaler carbon emissions with key stakeholders (e.g., ICBs, HBs, acute trusts, LMCs, LPCs). Examples may include:
  - Supporting patients to achieve and maintain good control of their asthma and COPD through regular reviews.
  - Information on, and incorporating, lower carbon footprint options within local respiratory treatment pathways and medicines formularies.
  - Providing patients with information on lower carbon footprint inhaler choices that are suitable for them, giving them the option to change their inhaler device, and fully explaining any changes to them.
  - Auditing to identify respiratory patients where review may improve clinical outcomes and reduce inhaler carbon footprint, e.g. patients overusing short-acting beta-2 agonist (SABA) inhalers.
  - Assessing inhaler technique in person regularly, and teaching the correct technique.
  - Providing patients with access to demonstration videos and instruction leaflets to support them to maintain optimal inhaler technique.
  - Optimising patients' therapy for those on multiple individual inhalers by discussing and offering a combination inhaler, where clinically appropriate.
  - Monitoring and sharing local inhaler carbon footprint prescribing data, noting where improvements can be made, and monitoring progress.
  - Ensuring stock availability, when making locally recommended choices, of all alternative lower carbon footprint inhalers through discussions with pharmacies, suppliers, and/ or manufacturers.
- ICBs/HBs/Trusts should undertake initiatives to reduce the environmental impact of inhaler waste. For example, public campaigns to inform people that they should:
  - Return their used or unwanted inhalers to a pharmacy for recycling where available, or environmentally safe disposal.
  - Look after their inhalers, not over-order or stockpile inhalers and know how to tell when their inhaler is empty.

Prescribing data, costs and savings

Across England, Wales, Northern Ireland, Isle of Man and Scotland approximately 208 million inhaler items are prescribed annually with a total carbon footprint of 2.28 trillion $KgCO_2e$ (NHSBSA and Public Health Scotland April to June 2025).

Examples of switches which reduce the inhaler carbon footprint (with their cost implications) are available in the visual data pack. Before undertaking any switches it is important to determine whether the switch is appropriate for the patient and their condition (asthma or COPD). Any switches being considered should be discussed and agreed with patients using the principles of shared decision making. They should be tailored to the individual, particularly as alternatives may not be therapeutically equivalent. Inhaler device instructions should be provided and doses may need to be adjusted on follow-up, according to the patient's response. The NICE patient decision aid on asthma inhalers and climate change can support decision making

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References

1. UK Government. The Climate Change Act 2008 (2050 Target Amendment) Order 2019. UK Statutory Instrument 2019 No.1056. https://www.legislation.gov.uk/uksi/2019/1056/resources
2. NHS England. Five years of a greener NHS: progress and forward look. Published September 2025. https://www.england.nhs.uk/long-read/five-years-greener-nhs-progress-forward-look/
3. NHS England. Delivering a 'Net Zero' National Health Service. Published October 2020. https://www.england.nhs.uk/greenernhs/publication/delivering-a-net-zero-national-health-service/
4. NHS Wales Decarbonisation Strategic Delivery Plan 2021-2030 (including Technical Appendices). Published March 2021. https://www.gov.wales/sites/default/files/publications/2021-03/nhs-wales-decarbonisation-strategic-delivery-plan.pdf
5. Scottish Government. NHS Scotland climate emergency and sustainability strategy: 2022-2026. Published 16 August 2022. https://www.gov.scot/publications/nhs-scotland-climate-emergency-sustainability-strategy-2022-2026/pages/2/
6. The National Archives. Climate Change Act (Northern Ireland) 2022. https://www.legislation.gov.uk/nia/2022/31/enacted

Additional PrescQIPP resources, including implementation tools and data:	https://www.prescqipp.info/our-resources/bulletins/bulletin-375-inhaler-carbon-footprint/

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