



A Survey of the Multidisciplinary Team Understanding of the Impact of Inhalers on Carbon Footprint



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Introduction

Health care's climate footprint is equivalent to 4.4% of global net emissions(1). Pressurised metred dose inhalers (MDIs) contain a propellant (hydrofluoroalkanes) which has a disproportionate global warming potential to dry powdered inhalers (DPIs) and soft mist inhalers (SMIs).

Methods

In this study an anonymous, online, 23 question, survey of the respiratory multidisciplinary team assessed the understanding of the impact of inhalers on carbon footprint.

This survey was granted ethical approval from the Irish College of General Practitioners.

Results:

113 members of the respiratory multidisciplinary team completed the online survey.

33 General Practitioners (GPs), 27 GP trainees, 20 respiratory nurses, 11 physiotherapists, 7 pharmacists, 7 non consultant house doctors (NCHDs), 5 NCHDs working in respiratory, 1 consultant, 1 practice nurse and 1 clinical nurse manager completed the survey.

63.7% of respondents prescribe inhalers at least weekly.

Inhaler Technique

- 16% Self-reported **inadequate** knowledge on inhaler technique.
- 42% Never received formal training on inhaler technique.
- 1 in 3 Did not select the correct inhalation technique for MDIs – 'Slowly and steadily' not 'Strongly and deeply'
- 25% Check inhaler technique at every visit.
- 40% Check technique when an inhaler is started or changed.
- 16% Never check inhaler technique

4 of 5 would appreciate further education inhaler technique.

Complete Care

- 43% always discuss lifestyle measures with patients before commencing an inhaler and 36% would do most times.
- Half report that they do not have access to pulmonary rehabilitation.

Carbon Footprint

- 42% did not know that some inhalers release green house gases (GHG).
- 47% were not aware that MDIs release more GHG than DPI or SMI.
- 65% thought inhaler choice was the most important measure to reduce the carbon footprint of inhalers.

93% agree it is important to consider carbon footprint when prescribing an inhaler.

Disposal

84% had never discussed the correct disposal of inhalers with their patients. Only 23% were aware of an **inhaler recycling scheme** in Ireland.

Information on Inhalers

40% are not confident in identifying patients that can be suitably managed on a low carbon inhaler.

2 in 3 would be most likely to ask the respiratory nurse for information on inhalers.



How to receive information?

- 35% prefer to receive information on inhalers in a **concise evidence based tool**
- 20% Post graduate training
- 20% Medical organisation e.g. GP Forum.

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Conclusion:

The respiratory multidisciplinary team recognises the need to consider carbon footprint when prescribing inhalers.

Further education and access to information is welcomed to support clinical decisions that benefit both patient and planet.

References

1. Healthcare Without Harm. Healthcares Climate Footprint <https://noharm-global.org/documents/health-care-climate-footprint-report>