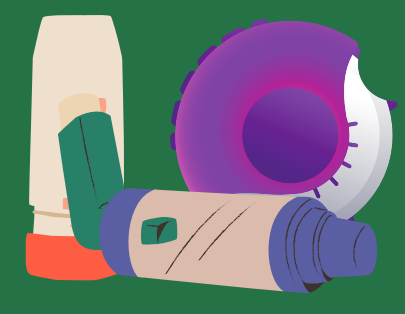
CLIMATE CONSCIOUS INPATIENT PRACTICES FOR STUDENTS AND RESIDENTS



Inhalers contribute disproportionately to climate change

- Metered-dose inhalers (MDIs) contain HFA, a greenhouse gas (GHG), that expels the medication from the inhaler
- Each MDI has the GHG equivalent of driving up to 139km (1)
- Dry powder inhalers (DPIs) don't have a propellant. Their carbon footprint is equivalent to driving 2-5km (1)

Inhaler waste is a huge problem in hospital

Island Health dispenses ~2900 inhalers each month - or the equivalent or driving around the earth 4.5x (2)

Up to 80% of patients have more than one identical inhaler dispensed during their admission(3)

Up to 98% of doses per inhaler are wasted (4)

WHAT YOU CAN DO TODAY

On admission

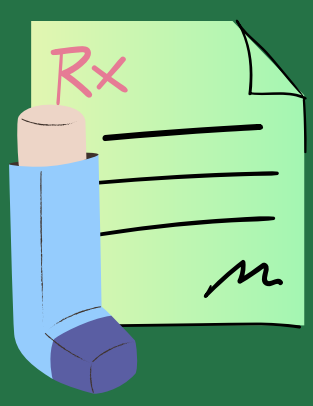
Patients who are admitted for shortness of breath often can't use a DPI - and that's fine! You should be prescribing the best medication for the patient's clinical presentation, regardless of carbon footprint!

If someone comes for a non-respiratory reason - during medication reconciliation, review whether they need their home rescue inhaler ordered during this admission (it may not be necessary if they rarely use it)

In hospital

Unless clinically indicated, minimize changes to inhaler devices or doses. This will minimize inhaler waste.

Learn about inhaler technique so you can teach your patients how to get the most out of their medication
Visit https://www.lung.ca/lung-health/how-use-your-inhaler



On discharge

Once the patient is stable from the respiratory perspective, consider ordering spirometry testing to confirm the diagnosis of airway disease after discharge

If and when clinically appropriate, engage in shared decision-making with your patient about changing to lower carbon inhaler alternatives. They may wish to discuss potential changes with their primary care provider first. Include information about what was discussed and recommendations in your discharge summary.

1. Stoynova V, Culley C. 2022. Detailed Inhaler Carbon Footprint Chart. Retrieved from https://cascadescanada.ca/resources/tools-templates/#inhalers
2. Deng M, Culley CL, Stoynova V. An Assessment of Inhaler Workflow and Disposal Practices Among Nursing Staff. 2022. Unpublished.
3. Sakaan S, Ulrich D, Luo J, Funch CK, Self TH. Inhaler Use in Hospitalised Paitents with Chronic Obstructive Pulmonary Disease or Asthma: Assessment of Waste Doses. Hosp Pharm. 2015;50(5):386-390.
4. Aeng ESY, McDougal KC, Allegretto-Smith EM, Tejani AM. Hidden Costs of Multiple-Dose Products: Quantifying Ipratropium Inhaler Wastage in the Hospital Setting. Can J Hosp Pharm. 2021;74(2):117-121.

WANT TO LEARN MORE?
WANT TO GET INVOLVED?

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