

CLIMATE CONSCIOUS INHALER PRACTICES IN INPATIENT CARE

Clinical Order Set Redesign: A step-by-step guide



This step-by-step guide was developed by the Critical Air Project, led by Dr. Valeria Stoyanova and Dr. Celia Culley at Island Health in Victoria, British Columbia. The steps in this guide are contextualized by the worked examples and recommendations from the Critical Air Project team.

Use the Notes section to brainstorm who to engage, ideas for action, and to check off completed steps!

1

Identify clinical order sets that contain metered dose inhalers.

- Context -

An Informatics Pharmacist extracted relevant information from the order set library - managing a hybrid electronic medical record activation state - electronic & paper order sets across sites.

- Notes -



2

Select order sets for which climate conscious inhaler selection may be appropriate.

- Context -

The team selected 12/33 order sets: COPD Exacerbation Admission Order set, Bronchodilator Mini-set Order set, the Respiratory Inhalers and Nebulizers Mini-set Order set. The team recommends excluding critical care order sets as critically ill patients often lack the necessary inspiratory capacity to use DPI devices successfully. As well, invasive and non-invasive ventilation support machines may not be designed to use DPI devices.

- Notes -



3

Identify who is responsible for editing and implementing the selected order sets.

- Context -

The team connected with the lead for the respiratory clinical order set, which was being reviewed as part of a move to Computerized Provider Order Entry (CPOE). The team joined the multidisciplinary group meetings (including pharmacists, specialists, nurses, and informaticists) as subject matter experts with planetary health expertise.

- Notes -



4

Highlight the climate impact of prescribing choices within the order set.

- Context -

Though limited by the CPOE's preset boundaries and the hospital formulary, the team (i) added lower carbon inhaler options where clinically relevant, e.g., adding terbutaline to the hospital formulary, (ii) placed lower carbon options higher in the order sets, and (iii) included the carbon footprint of each inhaler adjacent to the order entry.

- Notes -



5

Make it easy to learn about and prescribe climate conscious alternatives.

- Context -

The team included a link to reputable planetary health initiatives to facilitate access to further information. The team considered adding a "green leaf" next to lower carbon options, which wasn't feasible in the current EMR. The team recommends making DPI inhalers a "tick box" while requiring MDIs to be manually selected.

- Notes -



6

Review updated order sets with key stakeholders to get feedback.

- Context -

Key stakeholders that the team engaged included specialists, other prescribers, clinical pharmacists, nurses, pharmacy informatics, and nurse informatics.

- Notes -



For more resources, view the Climate Conscious Inhaler Practices in Inpatient Care playbook at cascadescanada.ca/resources/inhalers/

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