Interior Health

Pharmacy Residency Research Project Proposal

Working Title of the Project

Perceptions, Barriers and Enablers for Climate Conscious Inhaler Practices In an Urban, Tertiary Care Teaching Hospital

Principal Investigators

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Co-Investigators

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KGH Pharmacy Technician (TBC)
Regional Pharmacy Coordinator (TBC)
Dr. Megan Hill, Physician
Dr. Nicola Tam, Physician
Dr. Jade Dittaro, Physician

Research Site

Kelowna General Hospital (KGH)

Proposed Research Question(s)

For inhaler therapy prescribed during a visit at an urban, tertiary care hospital, what are the perceptions, enablers and barriers to reducing the carbon footprint of inhaler therapy, where clinically appropriate.

Study Design:

Prospective, qualitative design. Use of the Consolidated Framework for Implementation Research (CIFR) to assess context in terms of existing or potential barriers and enablers to successful implementation.

Objectives (should link to Outcomes)

1. To determine the perceived importance and feasibility of implementing climate-conscious inhaler therapy into patient care at an urban, tertiary teaching hospital
2. To determine barriers to implementing climate-conscious inhaler therapy at a tertiary hospital
3. To identify possible enablers to integrate climate conscious inhaler therapy practices in to a tertiary care hospital

RATIONALE (LIMIT TO 150 WORDS)

Metered Dose Inhalers (MDIs) are often prescribed in acute care for respiratory conditions such as COPD and asthma. Aerosol MDIs contain hydrofluoroalkanes (HFAs) that have a significant global warming potential. In addition, as a patient moves through the hospital admission sometimes multiple MDIs may be dispensed and are often disposed of with doses remaining in the canister. Opportunities to decrease the carbon footprint of MDI's during a hospital admission may include use of lower carbon inhalers, de-prescribing, ensuring appropriate inhaler technique, keeping a record of doses dispensed for inhalers, and judicious dispensing and tracking of MDIs in the hospital medication system. Insights gained from this study on the health care team perceptions of climate conscious inhaler therapy and how inhalers are handled in the medication management system will assist the organization in successfully implementing the changes required for a more environmentally sound approach to inhaler therapy in acute care.

SIGNIFICANCE (LIMIT TO 100 WORDS)

Canada's climate is warming at almost twice the global average. Climate change poses a significant risk to the health of British Columbians. In 2019, the BC Ministry of Health directed the health authorities to address climate change. "Climate Change and Health" is a strategic focus for Interior Health and supports actions that improve our operations to minimize greenhouse gas emissions and reduce waste. CASCADES is an organization that supports Canada's healthcare community to transition towards an environmentally sustainable (net zero carbon emission) and resilient system. They have created resources for healthcare professionals to support implementation and change including a specific focus on inhaler therapy. Interior Health pharmacy professionals are well-placed to champion improvements in health service delivery that is climate conscious by reducing the impacts of medications on our environment.

PROPOSED RESEARCH METHODS

Setting: Kelowna General Hospital (KGH), Kelowna, BC

Sampling: Purposeful Sample

Study Population: Prescribers, Pharmacists, Pharmacy Technicians, Respiratory Therapists, Nurses working at KGH

Data Collection: On-line Survey and Focus Groups

Data Analysis: Survey Results, Coding and theming from focus groups using NVivo12

FUNDING SOURCES

n/a

ANTICIPATED START DATE OF THE RESIDENCY PROJECT

July 2023

ANTICIPATED END DATE OF THE RESIDENCY PROJECT (CONSIDER FOR FEASIBILITY OF RESIDENCY PROJECT)

April 2024

PROJECT SUITABILITY (*FOCUS ON RESIDENCY PROJECT SUITABILITY*)

After consideration of the "**FINER**" criteria (**F**easible, **I**nteresting, **N**ovel, **E**thical, **R**elevant) I believe that the project meets all the Project Suitability Criteria__YES__ (indicate YES/NO)

EQUITY, DIVERSITY, INCLUSION CONSIDERATIONS (contact Sean if you have questions)

This proposed research has the potential to:

- ☐ Increase healthcare and health disparities (reconsider the design and methods to prevent this)
- ☐ Maintain healthcare and health disparities (reconsider the design and methods to prevent this)
- X Reduce healthcare and health disparities in equity-deserving groups (ideal)