

RECOGNIZING LEADERSHIP IN PHARMACY SUSTAINABILITY

Trillium Health Partners' Pharmacy Green Team

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Team members

- Gurminder Singh (Pharmacy Technician team leader)
- Rabiah Siddiqui (Resource pharmacist)
- Courtney MacMillan (Resource pharmacist)
- Andrea Beaman (Resource pharmacist)
- Amanda Dhawan (Clinical pharmacist)
- Robert Taglione (Clinical pharmacist)
- Allan Mills (Director of Pharmacy)
- Tania Fernandes (Clinical Pharmacy Manager)
- Ruby Ung (Pharmacy Resident)

RECOGNIZING LEADERSHIP IN PHARMACY SUSTAINABILITY

In 2023, a Pharmacy Green Team was formed at Trillium Health Partners with the goal of reducing the environmental footprint of pharmacy services. Since then, our group of volunteers have advanced many initiatives which are bound to make a measurable difference in pharmacy systems decarbonization. These initiatives are categorized in three areas of focus: research, pharmacy operations, and clinical pharmacy services.

From a research perspective, we have submitted a research protocol that will quantify the consumable waste generated within our two pharmacy departments, estimate the greenhouse gas emissions related to this, and identify opportunities to reduce waste generation and save money. A pharmacy resident is taking the lead on advancing this project and we anticipate results by summer of 2025.

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Pharmacy operations, which consist of inventory management and drug distribution, is a sizable contributor to hospital emissions. At THP, pharmacy technicians are involved in every aspect of operations, and a survey of technicians in 2024 revealed a multitude of areas where environmental initiatives could be implemented. This data was collated and assessed for feasibility, and the following implementations highlight the impacts of these changes to the environment:

- Medication tray plastic wraps were replaced with permanent lids, diverting an estimated 6,500 plastic bags per year from landfills.
- Labels generated from Swisslog Boxpicker drug dispensing was turned off, reducing label usage by approximately 6.8 million per year.
- Paper faxing for medication reconciliation work will be transitioned to an eFax process, reducing paper usage by ~150,000 pieces of paper per year.
- PVC products used in sterile dispensing will be recycled, diverting approximately 10,000 units of PVC from landfills per year.

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Within clinical pharmacy services, we have started two major initiatives targeting high emission drugs at point of use: desflurane anesthetic and MDI inhalers.

Desflurane has been completely removed from hospital operating rooms and has been replaced with sevoflurane, a lower carbon alternative. For MDI inhalers, a full review of usage and prescribing patterns is underway. Opportunities for intervention have been identified, including replacing MDIs with respimats or dry powder inhalers where possible, adjusting order sets where MDIs are automatically ordered, and building awareness through educational initiatives.

Within a year, the pharmacy green team is proud to have accomplished the above and much more. The multi-pronged approach to environmental sustainability has allowed us to divide our limited resources but have a broad impact. We look forward to advancing our mandate in the coming year!