

# DRUGS & DEVICES: ANESTHETIC GASES & SURGERY



With climate change being described by the United Nations as "the greatest threat that modern humans have faced," we have a responsibility to make better choices for patients and the planet. All front line care providers in hospital operating rooms (ORs) must share in this responsibility.

Examples of sustainable improvements include:

- 1) Selecting anesthetic techniques that minimizes the use of anesthetic gases with high global warming potential (example: avoiding Desflurane and Nitrous oxide);
- 2) Powering hospital ORs with clean and renewable energy sources;
- 3) Reducing energy consumption and plastic waste.

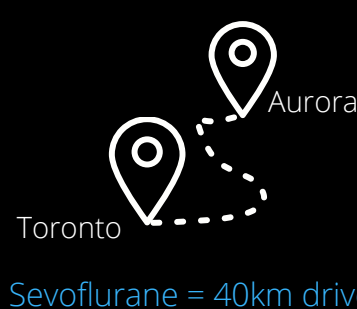
## SUCCESSES

**Tangible outcomes in education and results:** "We have been engaging with politicians to educate them about climate change and how we can ban desflurane from entering the atmosphere" -SM



-Encouraging hospitals to limit the choice of anesthetic gas to sevoflurane and remove Desflurane from their formulary. Both are effective anesthetics, but sevoflurane leaves a much smaller carbon footprint. If these gases were part of the greenhouse gas inventory and subject to the carbon tax, Desflurane would not be economically competitive.

Full day use



## PRACTICAL ADVICE



-Connect and engage with professional organizations (OMA), politicians, and colleagues to present green alternatives, supported by carbon reduction estimates and cost-savings to current practices

-These changes can be recommended during meetings with hospital leadership

*In some cases, the groups that have the power to make change may be "more interested in the cost-saving data than they are in the environmental aspects. And that is okay because our goal is to implement a change in practice." -AR*

## FUTURE GOALS

*"We need a coordinated effort across the province. This is important to address, because it involves tax payer dollars...and the air that they breathe." -AR*



-Education is important but accountability on individual physician practices should be prioritized

-Hospitals by law have a GHG inventory, however, much of the carbon emission equivalents are not "counted." Energy and natural gas use are the only items that must be accounted for.

### Interviewees:

- Dr. Anita Rao (AR), Mississauga
- Dr. Sanjiv Mathur (SM), Sudbury
- Dr. Antonio Caycedo-Marulanda (ACM), Kingston

