## ONTARIO'S ANESTHESIOLOGISTS: A SECTION OF THE ONTARIO MEDICAL ASSOCIATION

## ONTARIO'S ANESTHESIOLOGISTS POSITION STATEMENT ON REPORTING ANESTHETIC GASES IN THE ONTARIO HOSPITALS GREENHOUSE GAS INVENTORY

"Climate change is the greatest threat to global health in the 21st century" (1).

"If the health sector were a country, it would be the fifth-largest carbon emitter on the planet" (2).

Anesthetic gases are used to keep patients unconscious during surgery. They are potent greenhouse gases and possess significant global warming potential (3,4). In Canada, anesthetic gases contribute a disproportionate 5% of harmful emissions from the healthcare sector (5). Currently, neither the Federal nor the Provincial Greenhouse Gas Inventory requires the reporting of anesthetic gas usage by healthcare facilities (6,7). Ontario's Anesthesiologists support a regulatory change to healthcare greenhouse gas emissions reporting to include anesthetic gases. Accurate data collection and reporting are necessary in order to promote sustainable practice and to drive innovation.

Anesthesiologists are accountable to not only their patients but also to their wider communities. Protecting the health of our communities includes ensuring anesthetic practices minimize effects on our environment. Ontario's Anesthesiologists support clinical practices that align with environmental sustainability; the choice of anesthetic technique should consider the carbon footprint. If anesthetic gases are used, the agent with the lowest global warming potential is highly preferable (8.9).

Urgent action is needed to avert a climate catastrophe. Ontario's Anesthesiologists support all sustainable practices that fulfill the dual goals of providing high quality patient care and of protecting the health of our planet.

THIS POSITION STATEMENT WAS PRODUCED BY DR ANITA RAO, DR ALI ABBASS, DR SANJIV MATHUR, DR GAIL HIRANO AND DR NAM LE, IN MAY 2021, WITH ASSISTANCE AND SUPPORT OF THE EXECUTIVE OF ONTARIO'S ANESTHESIOLOGISTS.

## THE ONTARIO MEDICAL ASSOCIATION IS IN FULL SUPPORT OF THIS STATEMENT

## References

- 1. World Health Organization: Climate Change and Human Health. Retrieved from https://www.who.int/globalchange/global-campaign/cop21/en/
- 2. Healthcare Without Harm: Climate footprint report: Executive Summary. 2019. Retrieved from https://noharm-global.org/documents/climate-footprint-report-executive-summary
- 3. Gadani H, Vyas A. Anesthetic gases and global warming: Potentials, prevention and future of anesthesia. Anesth Essays Res. 2011 Jan-Jun;5(1):5-10.
- 4. Özelsel TJ, Sondekoppam RV, Ip VHY, Tsui BCH. Re-defining the 3R's (reduce, refine, and replace) of sustainability to minimize the environmental impact of inhalational anesthetic agents. Can J Anaesth. 2019 Mar;66(3):249-254. English. doi: 10.1007/s12630-018-01279-3. Epub 2018 Dec 17. PMID: 30560410.
- 5. Eckelman MJ, Sherman JD, MacNeill AJ. Life cycle environmental emissions and health damages from the Canadian healthcare system: An economic-environmental-epidemiological analysis. PLoS Med. 2018 Jul 31;15(7):e1002623.
- 6. Environmental Commissioner of Ontario: 2017 Annual Greenhouse Gas Progress Report Ontario's Climate Act: From Plan to Progress. Appendix D:Anaesthetic Gas in Ontario. Retrieved from https://www.auditor.on.ca/en/content/reporttopics/envother/env17\_other/From-Plan-to-Progress-Appendix-D.pdf
- 7. Government of Canada, Environment and Climate Change Canada. TECHNICAL PAPER ONTHE FEDERAL CARBON PRICING BACKSTOP, May 18, 2017, p.17
- 8. Deb Axelrod et al, Greening the Operating Room and Perioperative Arena: Environmental Sustainability for Anesthesia Practice, ASA Task Force on Environmental Sustainability Committee on Equipment and Facilities. 2015
- 9. Campbell M, Pierce T. Atmospheric science, anaesthesia, and the environment BJA Education, 15 (4): 173-179 (2015)

