



## EDITORIAL

# “Green” operating room. Can we and should we have a real impact on the environment?

Sala de cirugía “verde”. ¿Podemos y debemos tener un impacto real sobre el medio ambiente?

Jaime Escallon, MD, FACS, FRCSC 

Division of General Surgery, Department of Surgery, University of Toronto; Department of Surgical Oncology, Princess Margaret Cancer Centre; Marvella Koffler Breast Centre, Mount Sinai Hospital; Toronto, ON, Canada

*Climate change is not a distant problem; it's happening and it's happening today.”*

Bill Gates

### How to avoid a climate disaster

As surgeons we must ask ourselves three questions:

- Is climate change and its impact on the environment a reality?
- What responsibility do we have as surgeons to act and mitigate and reverse this impact?
- What strategies can we implement to achieve this?

Climate change has been defined as the most serious health crisis. The health of the envi-

ronment is directly related to the health of the human being. Health care globally, if considered as a country, would be the fifth largest contributor to pollution after Japan. Operating rooms undoubtedly have a significant impact and contribute significantly to the carbon footprint with many of the items we routinely use in surgery.

Undoubtedly one of the main impacts are anesthetic agents, some of them have a greater and longer lasting impact compared to fossil fuels. In fact, some of these agents have been discontinued and have been replaced by agents that are safer for the environment. Although this action does not depend directly on the surgeon, it is important to be aware of this fact and follow the example of successful strategies led by anesthesiologists.

**Keywords:** climate change; environment; operating rooms; surgical instruments; disposable equipment; medical waste disposal; checklist.

**Palabras clave:** cambio climático; ambiente; quirófanos; instrumentos quirúrgicos; equipos desechables; eliminación de residuos sanitarios; lista de verificación.

Received: 07/09/2023 - Accepted: 07/15/2023 - Published online: 26/07/2023

Corresponding author: Jaime Escallon, MD, FACS, FRCSC. Email address: [Jaime.Escallon@sinaihealthsystem.ca](mailto:Jaime.Escallon@sinaihealthsystem.ca)

Citar como: Escallón J. “Green” operating room. Can we and should we have a real impact on the environment? Rev Colomb Cir. 2023;38: Rev Colomb Cir. 2023;38:598-9. <https://doi.org/10.30944/20117582.2435>

This is an open Access under a Creative Commons License - BY-NC-ND <https://creativecommons.org/licenses/by-ncnd/4.0/deed.es>

Something that does depend in part on the surgeon is the amount of waste at the end of each surgery. It is known that 20% of the waste produced in hospitals comes from the operating rooms.

Which strategies have been successfully implemented in some hospitals?

First, leadership and a commitment on the part of the directives are required to make the impact on the environment a priority.

Reducing waste and making good use of recycling have proven to be effective measures.

Rationalize surgical equipment and avoid the process of re-sterilizing equipment that was opened in operating rooms, but not used.

Create “Green Teams” that maintain awareness of the importance of protecting the environment.

We must implement a “Green checklist” at the beginning of each case just as we do the usual veri-

fication, which has been shown to have a positive impact on improving patient safety in the operating room.

Perhaps, a “Green checklist” will have a very important long-term impact on the health of the environment and therefore on the health of our patients.

It is also necessary to include education on the environment and climate change from medical school and in specialization programs in such a way that future generations consider acting to mitigate and reverse climate change as part of our daily practice of the profession.

The Colombian Association of Surgery has led some actions related to the issue, but it will not have any impact until all its members begin to consider that actions in favor of the environment are a priority.