



EXECUTIVE SUMMARY

Anesthetic Gas Toolkit

Why focus on anesthetic gases?

Anesthesia and analgesia are fundamental to patient safety and quality care, yet because anesthetic gases are greenhouse gases (GHG), the use of anesthetic agents has a direct impact on the environment, patients, and community health.

[The Lancet Commission on Health and Climate](#) identified climate change as the greatest threat and opportunity to public health in the 21st century. Healthcare is responsible for **10 percent of U.S. greenhouse gas emissions**, and of that, hospitals represent more than one third of those emissions. A [study in The Lancet](#) found anesthetic gases make up 51 percent of an operating room's GHG emissions at an average U.S. hospital, whereas anesthetic gases represent 4 percent of an OR's greenhouse gas emissions in United Kingdom hospitals, a variation accounted for by differences in providers' anesthetic gas selections.

By zeroing in on anesthetic gases, anesthesia providers and health care organizations have an opportunity to support their facility's GHG reduction goals.

The Practice Greenhealth Anesthetic Gas Toolkit provides resources, tools, and strategies member hospitals can use to:

- Understand how to make the case for focusing on anesthetic gases from an environmental, financial, and human health perspective
- Assess current practices, gather data, and develop a baseline
- Establish and commit to a reduction goal.
- Identify opportunities and strategies
- Educate and engage staff

Get started with anesthesia today.

Reducing GHG emissions from anesthetic gases often results in cost savings:

- An education campaign at UW Health-University Health and American Family Children's Hospital reduced anesthetic gas consumption, saving almost \$240,000 annually.
- Engaging and educating clinicians at Johns Hopkins Hospital helped the facility save more than \$226,000 in one year.
- New anesthesia machines at Harborview Medical Center helped reduce MTCO₂E from anesthesia by 47 percent and saved \$50,000.

Clinical Connections

Because of its complex clinical and direct patient impact, it is critical that anesthesia providers and experts take a leadership role in the education of their peers. The American Society of Anesthesiologists recommends clinical strategies that can minimize environmental impact and greenhouse gas emissions while supporting safe patient care standards. The Practice Greenhealth Anesthetic Gas Toolkit resources supplement ASA's recommendations.



Let Practice Greenhealth help you lead change in your hospital. To get started today, email join@practicegreenhealth.org.