



NEWS RELEASE

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Evidence-based green practices and sustainability strategies to reduce operating room waste

Study in October 2021 issue of The Joint Commission Journal on Quality and Patient Safety

(OAKBROOK TERRACE, Illinois, September 21, 2021) – Health care facilities represent a significant source of pollution around the world, contributing to climate change.^{1,2,3} Operating rooms (ORs) contribute up to 30% of a hospital’s waste.⁴ Additionally, 90% of OR waste is improperly sorted and sent for unnecessary biohazard waste processing, including recoverable medical supplies that can be reused through sterilization or reprocessing.⁵

A new study in the October issue of *The Joint Commission Journal on Quality and Patient Safety* (JQPS), “[Sustainability Initiatives in the Operating Room](#),” by Samantha Wu and Elizabeth Cerceo, MD, FACP, FHM, at Cooper University Healthcare, Camden, New Jersey, conducted a narrative review to identify evidence-based green practices and sustainability strategies to reduce waste in the OR, including:

- Forming an OR committee or a hospital Green Team dedicated to environmentally sustainable initiatives.
- Changing the supply chain with preferences for reusable devices, effective recycling, repurposing instruments and donating items to divert waste away from landfills.

¹Eckelman MJ, Sherman J. Environmental impacts of the U.S. health care system and effects on public health. *PLoS One*. 2016 Jun 9;11:e0157014.

²Holmner A, et al. Climate change and eHealth: a promising strategy for health sector mitigation and adaptation. *Glob Health Action*. Epub. 2012 Jun 5.

³Eckelman MJ, et al. Health care pollution and public health damage in the United States: an update. *Health Aff (Mill- wood)*. 2020;39:2071–2079.

⁴Practice Greenhealth. Home page. Accessed Jul 12, 2021. <https://practicegreenhealth.org/>.

⁵Kwakye G, Brat GA, Makary MA. Green surgical practices for health care. *Arch Surg*. 2011;146:131–136.

- Reducing unnecessary packaging and instruments to eliminate excess in the waste stream.
- Curtailing energy and water usage to improve cost and environmental savings.
- Transitioning away from certain inhaled anesthetics to minimize greenhouse gas impact.
- Educating staff across all levels of the health care system to drive and maintain change.

“All these practice strategies require engagement by members of the OR community, including anesthesiologists, surgeons, nurses, biomedical engineers, environmental services, and facilities staff,” notes an [accompany editorial](#) by Fiona A. Miller, PhD, at the Institute of Health Policy, Management and Evaluation, University of Toronto. “Thus, Wu and Cerceo highlight the importance of education and committee structures to foster teamwork in support of sustainability.”

Also featured in the October issue:

- [Use of Accessible Weight Scales and Examination Tables/Chairs for Patients with Significant Mobility Limitations by Physicians Nationwide](#) (University of Massachusetts – Boston Center for Survey Research, Boston)
- [Implementation of Collection of Patients’ Disability Status by Centralized Scheduling](#) (University of Colorado Health System, Aurora, Colorado)
- [Persistent Gaps in the Care of Patients with Disability: Laws Are Necessary but Not Sufficient](#) (editorial)
- [Workplace Violence Against Physicians Treating COVID-19 Patients in Peru: A Cross-Sectional Study](#) (Universidad Católica de Santa María, Peru)
- [Improving Medication Reconciliation with Comprehensive Evaluation at a Veterans Affairs Skilled Nursing Facility](#) (U.S. Department of Veterans Affairs Boston Healthcare System, Boston)
- [Developing a Unit-Based Quality Improvement Program in a Large Neonatal ICU](#) (Monroe Carell Jr. Children’s Hospital at Vanderbilt, Nashville)
- [Patient Safety and Ethical Implications of Health Care Sick Leave Policies in the Pandemic Era](#) (commentary)

For more information, visit [The Joint Commission Journal on Quality and Patient Safety website](#).

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Note for editors

The article is “[Sustainability Initiatives in the Operating Room](#)” by Samantha Wu and Elizabeth Cerceo, MD, FACP, FHM. The article appears in *The Joint Commission Journal on Quality and Patient Safety*, volume 47, number 10 (October 2021), published by Elsevier.

The Joint Commission Journal on Quality and Patient Safety

[The Joint Commission Journal on Quality and Patient Safety](#) (JQPS) is a peer-reviewed journal providing health care professionals with innovative thinking, strategies and practices in improving quality and safety in health care. JQPS is the official journal of [The Joint Commission](#) and [Joint Commission Resources, Inc.](#) Original case studies, program or project reports, reports of new methodologies or the new application of methodologies, research studies, and commentaries on issues and practices are all considered.