



Research conducted at University of Michigan published in *Anesthesia & Analgesia Practice* demonstrates GE HealthCare End-tidal Control software may help to reduce fresh gas flow

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- Study of nearly 13,000 adult general anesthesia cases found clinician use of End-tidal Control softwareⁱ at a large multisite academic medical center was associated with a reduction in fresh gas flow, sevoflurane consumption and estimated CO₂ equivalents during maintenance of anesthesia
- End-tidal Control software automatically adjusts fresh gas flow concentrations of O₂ and anesthetic agent concentrations to maintain targets set by the clinician, and, as one study shows, with more accuracy versus manual control for safeⁱⁱ, low-flowⁱⁱⁱ anesthesia

CHICAGO--(BUSINESS WIRE)--Oct. 16, 2026-- GE HealthCare (Nasdaq: GEHC) today announced the publication of research conducted at the University of Michigan^{iv} evaluating the use of [End-tidal Control software](#) across a large multisite academic health system in [Anesthesia & Analgesia Practice](#). The retrospective observational study analyzed 12,818 adult general anesthesia cases performed at University of Michigan Health – Ann Arbor locations between April 1, 2023 and September 30, 2024 on anesthesia machines with End-tidal Control software.

The study found End-tidal Control was used in 6,755 cases (52.7%) and its use was associated with:

- **62.3% reduction** in median fresh gas flow during maintenance of anesthesia
- **39.3% reduction** in sevoflurane consumption

"Health systems are looking for practical ways to support clinicians while advancing more sustainable care," said John Beard, MD, anesthesiologist and Chief Medical Officer of Patient Care Solutions at GE HealthCare. "This research at the University of Michigan adds important real-world evidence of End-tidal Control use at scale and how it may help reduce fresh gas flows and anesthetic agent consumption."

End-tidal Control software supports the clinician in maintaining clinician-set targets for end-tidal anesthetic agent and oxygen concentrations with greater accuracy than manual adjustments.^v End-tidal Control supports low-flow anesthesia, which may help reduce the amount of anesthetic agent utilized and potentially lower greenhouse gas emissions and costs.^{vi}

"Our team wanted to understand not only if End-tidal Control would be chosen for use in routine practice, but also how its use was associated with anesthesia delivery and environmental measures across a large academic health system," said Douglas A. Colquhoun, MB ChB, MSc, MPH, Associate Professor of Anesthesiology at the University of Michigan^{vii}. "These findings suggest that End-tidal Control had a high adoption rate and, when used in real-world practice by anesthesia clinical teams it could translate to significant reductions in fresh gas flow resulting in projected cost saving and benefits for the environment."

The study also found variation in End-tidal Control use was significantly driven by the in-room anesthesia clinician, underscoring the importance of workflow, education and implementation considerations when deploying anesthesia technologies at scale.

GE HealthCare designs anesthesia solutions to support care that can help clinicians think one step ahead. End-tidal Control software can be used with the Aisys™ C3 anesthesia delivery system to enhance perioperative care.

About GE HealthCare Technologies Inc.

GE HealthCare is a leading global healthcare solutions provider of advanced medical technology, pharmaceutical diagnostics, and AI, cloud and software solutions that help clinicians tackle the world's most complex diseases. Serving patients and providers for 130 years, GE HealthCare is delivering bold innovations designed for the next era of medicine across its Advanced Imaging Solutions, Pharmaceutical Diagnostics and Patient Care Solutions segments to help clinicians deliver more personalized, precise patient care. We are a \$20.6 billion business with approximately 54,000 colleagues working to create a world where healthcare has no limits.

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ⁱ End-tidal Control in the United States is indicated for patients 18 years of age and older.

ⁱⁱ GE HealthCare Et Control Pivotal Study Report DOC2163005

ⁱⁱⁱ Refer to the anesthetic agent labeling for information regarding indications for use, warnings, and other relevant clinical information specific to that anesthetic agent. For example, labeling for sevoflurane includes specific warnings related to the potential risk associated with use at a low flow rate and under certain clinical conditions. Any decisions regarding selection of anesthetic agent and flow rate should be made at the discretion of the clinician and in their medical judgment based on available information.

^{iv} Partial funding for data extraction and analysis related to this study was provided by GE Healthcare to the University of Michigan. The study protocol and statistical analysis plan were reviewed and approved a priori by the University of Michigan, Department of Anesthesiology, Anesthesia Clinical Research Committee.

^v McCabe MD, Dear GL, Klopman MA, Garg K, Seering MS. End-Tidal Control Versus Manual Control of Inhalational Anesthesia Delivery: A Randomized Controlled Noninferiority Trial. *Anesth Analg*. 2024 Oct 1;139(4):812-820. https://journals.lww.com/anesthesia-analgesia/fulltext/2024/10000/end_tidal_control_versus_manual_control_of.17.aspx. doi: 10.1213/ANE.00000000000007132. Epub 2024 Jul 19.

^{vi} Tay, S., Weinberg, L., Peyton, P., Story, D., and Briedis, J. 2013. "Financial and Environmental Costs of Manual versus Automated Control of End-Tidal Gas Concentrations." *Anaesthesia and Intensive Care* 41 (1): 95–101. <https://journals.sagepub.com/doi/10.1177/0310057X1304100116>. doi:10.1177/0310057X1304100116

^{vii} *The views expressed are solely those of Dr. Douglas Colquhoun, do not reflect the opinions or beliefs of University of Michigan and are based on his own opinions and on results that were achieved in the trial. Since there is no "typical" hospital/clinical setting and many variables exist, i.e. hospital size, case mix, staff expertise, etc. there can be no guarantee that others will achieve the same results.*

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