



In reply: Please stop using nitrous oxide in routine clinical practice (comment on: Use of nitrous oxide in contemporary anesthesia—an ongoing tug of war)

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To the Editor,

We thank Drs Hönemann and Kim for their interest in our editorial.^{1,2} As global citizens, we agree completely that all anesthesiologists should work together to reduce waste production and mitigate the effects of climate change. Drs Hönemann and Kim suggest abandoning the use of nitrous oxide to protect the environment.^{3,4} We believe this recommendation should be weighed against the available alternatives. Without nitrous oxide, larger doses of fluorinated gases will have to be administered to maintain adequate anesthesia. These are also greenhouse gases and may produce similar environmental challenges if not adequately scavenged.⁵ For those who wish to swap to intravenous anesthesia, additional plastic syringes, tubings, and electricity to drive the infusion pumps may add to the environmental crisis. Furthermore, remifentanyl has been shown to induce μ -opioid receptor internalization and may contribute to acute postoperative opioid tolerance.⁶ In this respect, the potential role of nitrous oxide in preventing chronic postsurgical pain among select groups of patients should not be overlooked. Nevertheless, low-flow breathing systems, efficient scavenging, and closed filling should always be considered to avoid spilling waste anesthetic gases into the atmosphere.⁵

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