Desflurane Removal

When Dr. Praveen Kalra read about the carbon footprint of the commonly used anesthesia gas Desflurane, his first reaction was disbelief. He sought out the data, which confirmed that the carbon footprint of Desflurane is 2500 times that of CO2. He then got to work to reduce Desflurane use by anesthesia. In partnership with the Sustainability Program Office, Dr. Kalra sought out other hospitals who had reduced or eliminated Desflurane usage. He learned that hospitals were saving money and reducing greenhouse gas emissions by substituting Desflurane with Sevoflurane, a lower-cost anesthetic with global warming potential 20 times less than that of Desflurane.

Dr. Kalra presented his findings and recommendations to the Anesthesia Quality Council. Upon recommendation from the council, he once again collected data. He surveyed all anesthesiologists on their knowledge of the environmental impact of Desflurane, willingness to substitute the drug for a low-carbon alternative, and desire for greener practices in the OR. The findings supported the elimination of Desflurane, and the initiative was approved by Anesthesia leadership.

This initiative resulted in emissions reductions of 670 metric tons between 2017 and 2019, equal to 124 passenger vehicles taken off the road for a year. This project represented just the start of sustainable anesthesia opportunities. Dr. Kalra and his colleagues have formed the Anesthesia Green Team and are launching sustainability initiatives that support OR quality and value, including reusable supplies, better waste sorting, and blue wrap recycling.