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Abstract Title:

An anesthetic attempt to be "green": How do you waste your CO2 absorbers?

Abstract Body:

Operating room waste may be broadly divided into non-contaminated solid waste (SW) and regulated medical waste (RMW). RMW must be treated before it is sent to landfill, at increased economic and environmental cost. We evaluated these costs with a focus on one waste item: disposable carbon dioxide (CO₂) absorbers. At our institution, exhausted absorbers were being discarded intact as RMW. We collaborated with product representatives, anesthesia and perioperative staff, and waste management personnel to identify opportunities and barriers for recycling and waste reduction.

Due to product design limitations and employee health concerns, we eliminated the possibility of separating and recycling the polypropylene plastic absorber canister. We learned that RMW is steam-sterilized which, unlike incineration, does not directly produce pollutants. We calculated that steam sterilization of CO₂ absorbers alone costs our institution an estimated \$240 per year, in addition to electricity and water resources. Ultimately, we agreed to discard CO₂ absorbers as SW instead of RMW – a strategy which is practical, less expensive and more environmentally appropriate.

Anesthesiologists have a responsibility to consider the environmental impact of anesthetic

practice. A proactive multidisciplinary examination of these issues can lead to pragmatic solutions.