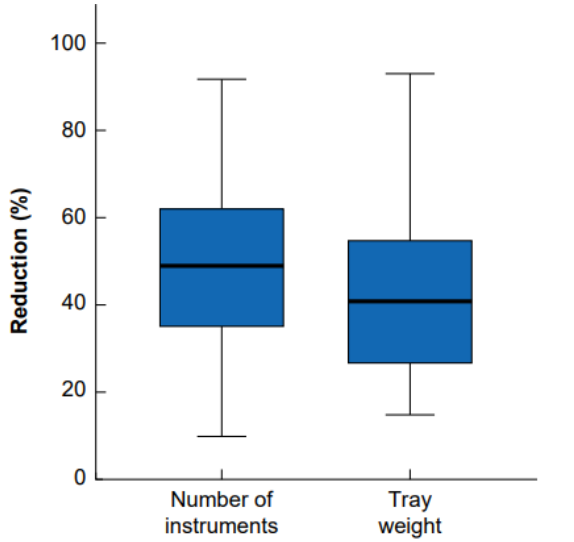
SOS SUSTAINABILITY NUGGETS
June 2025

Did you know… up to 87% of instruments in surgical trays go unused, leading to excessive sterilization energy and water use.

- Initiatives to optimize surgical trays report that **>50% of instruments** could be removed from surgical trays.
- Fewer instruments in a surgical tray leads to **lower carbon footprint** from sterilizing, washing and steaming each instrument, while increasing the instrument's longevity
- Each instrument removed from a tray may **save up to $0.51 per use** in cleaning, processing, and depreciation cost



Eussen et al, BJS Open 2025

Fig. 2 Percentage reduction in the number of instruments and tray weight per tray after optimization

What can YOU do in JUNE?

- In your next case, try to reduce the number of instruments which are opened but remain unused by the end of the case
- Review and optimize your preference cards for your most common procedures
- Switch to "have available in room" on preference cards any instruments which are seldom used, but need to be immediately available
- Meet with colleagues in your group to agree on optimized, standardized surgical trays for your specialty

To learn more, check out these references:

- Stockert EW, Langerman A. Assessing the magnitude and costs of intraoperative inefficiencies attributable to surgical instrument trays. J Am Coll Surg. 2014 Oct; 219 (4): 646-55
- Eussen MMM, Logghe E, Bluiminck S, Comes DJ, Kimman ML, Essers BAB, Wellens LM, Kruijff S, de Reuver PR, Bouvy ND. Reducing surgical instrument usage: systematic review of approaches for tray optimization and its advantages on environmental impact, costs and efficiency. BJS Open. 2025 May 7;9(3):zraf030
- Ahmadi E, Masel DT, Metcalf AY and Schuller K. Inventory management of surgical supplies and sterile instruments in hospitals: a literature review. Health Syst (Basingstoke). 2018; 8 (2): 134-151

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