

The journey to sustainable healthcare



Environmental impact

Sustainability in the operating room requires a broader view of the entire product journey. Multi-patient products are often seen as a sustainable choice, but we need to look beyond just life cycle assessments to truly understand their impact. They are valuable tools for evaluating emissions, but they often rely on data and can omit key impacts from reprocessing and end-of-life treatment. Sustainability assessments focus on single units and are not designed to consider how some products can improve outcomes and ease the environmental load on the broader healthcare system.

Greenhouse gas emissions

Healthcare systems contribute about **4.4% of global greenhouse gas emissions¹**, with operating rooms being energy-intensive. 80-88% of emissions come from energy consumption and anaesthetic gases². While reducing emissions from medical products is important, it should not be expected to lower operating room emissions to zero, without other more significant changes. Product emissions must be balanced with their clinical benefits, such as patient safety and treatment efficacy.



Sustainability in healthcare extends beyond the emissions and waste of an individual product - it also includes efficient theatre use and achieving optimal clinical outcomes, which together can reduce the overall environmental impact of the healthcare system.

Waste

Healthcare facilities generate **1-2% of urban waste³**, mostly non-hazardous. Medical products generate waste both within and outside the operating room. However, material use and waste from reprocessing activities, such as cloths, chemicals, packaging and test kits, is often overlooked in current assessments. Sustainability assessments should account for all waste, including reprocessing materials.

Water resources

Water scarcity affects **34% of EU territory⁴**, and climate change is intensifying droughts. Healthcare facilities are significant water users, especially with multi-patient products that require extensive cleaning. This increases strain on local water resources. Water quality also affects product safety, with poor water quality potentially increasing microbial contamination and damaging products.

Waterwaste pollution

Hospital wastewater can be 5 to 15 times more toxic than municipal wastewater⁵ and can contain harmful chemicals and pathogens. Reprocessing multi-patient products contribute to this pollution, with biocides and antimicrobial agents leading to contamination. Hospital wastewater also carries higher levels of antimicrobial resistance (AMR), which poses a significant environmental and health risk⁶. Sustainability assessments should consider wastewater pollution and the capacity of treatment systems to manage it.

To evaluate the sustainability of a medical product, we need sustainability assessments that take a holistic approach by assessing the product journey and the environmental impact. Your choices today can drive a more sustainable future in healthcare.

To learn more, scan here:



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