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Every load monitoring

Help eliminate sterile processing as a source of infection with every patient's surgical case

Remove uncertainty

Every Load Monitoring (ELM) means **every** sterilization load is monitored with a biological indicator (BI) to verify sterility assurance for **both** steam and vaporized hydrogen peroxide (VH2O2) — helping to reduce risk and provide assured sterilization for **every patient** in the OR.

Why monitoring every load matters

Sterilization monitoring plays a critical role in infection prevention, emphasizing controlled processes to protect patients throughout the perioperative setting.[1]

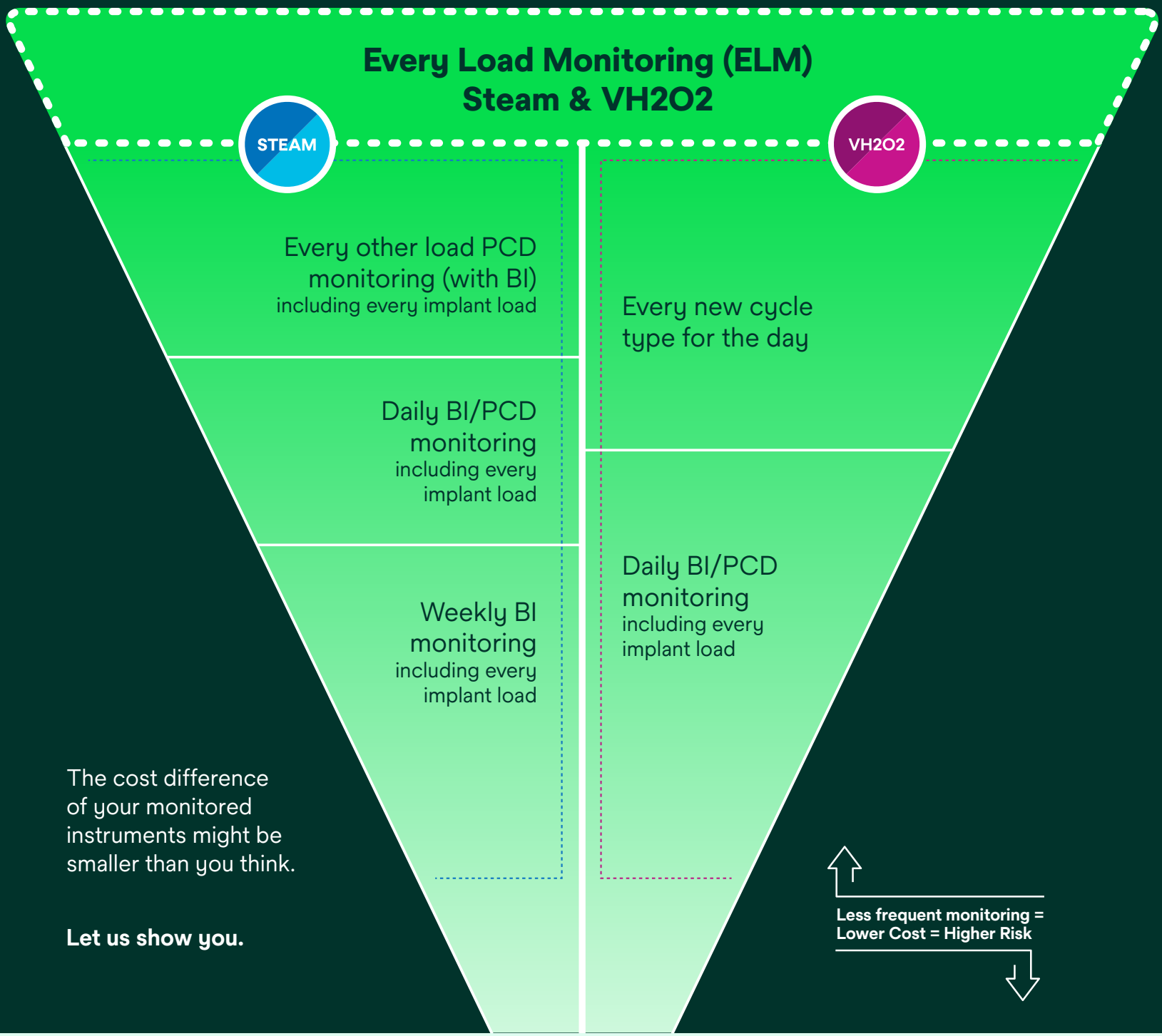
Performing load monitoring with a BI reduces the number of procedures performed with instruments that haven't been fully monitored.

Using surgical instruments or implants without a confirmed negative BI may increase the risk of:

- Surgical site infections (SSIs)[2]
- Delayed procedures or product recalls[3,4]
- Additional patient monitoring or medication[5]
- Reputational or compliance risk[6,7]

ELM can be as simple as using a process challenge device (PCD)

Many departments only monitor a fraction of their total loads with a BI PCD. That gap is more common — and more solvable — than most teams expect. Solventum helps you understand where you are today and take realistic steps toward increasing monitoring frequency over time.



What percent of your total surgeries are monitored with a Steam and a VH2O2 BI?

Standards set the baseline.
ELM helps you set best practices.

Global and professional standards emphasize the importance of routine monitoring, documentation and risk reduction in sterilization practices. While no standards currently mandates Every Load Monitoring, ELM builds on these foundations to further increase confidence and reduce uncertainty because every patient deserves the highest standard of care.

Referenced organizations

Organization	Guidance for Steam BI Load Monitoring	Guidance for VH_2O_2 BI Load Monitoring
ANSI/AAMI[8,9]	ST79 (Steam): Use a BI in a PCD for routine efficacy monitoring **at least weekly, preferably daily**; monitor every load containing implants with a BI + Class 5 integrator in a PCD and quarantine implants until the BI is negative.	ST58 (VH_2O_2): Use a PCD with the appropriate BI **at least daily**; many facilities implement every-cycle BI monitoring. Follow the sterilizer manufacturer's IFU for BI/PCD type and placement.
AORN[10]	Policy/guideline materials: Use BIs **at least weekly, preferably daily**; do not release loads with implants until the BI is negative.	Follow manufacturer IFUs for low-temperature processes; **routine daily (preferably each load)** monitoring is commonly implemented in perioperative settings, with AAMI ST58 as the technical basis.
APIC[11]	Aligns with CDC/AAMI practice: BI (spore) testing **at least weekly** for each sterilizer and in **every load with implantable items**.	Refers users to AAMI ST58 for VH_2O_2 (**at least daily**; many facilities choose every-cycle) and to manufacturer IFUs.
CDC[12]	Steam and low temperature sterilizers should be monitored **at least weekly** with the appropriate commercial preparation of spores. If a sterilizer is used several loads per day, daily use of biological indicators allows earlier discovery of problems and minimizes the extent of patient surveillance. **Each load should be monitored** if it contains implantable objects.	
HSPA[13]	Echoes ST79: BI testing **at least weekly — preferably daily**; Bowie-Dick daily for dynamic-air-removal; manage implants per AAMI ST79.	Education aligns with AAMI ST58 for VH_2O_2 (**routine BI use** as part of the QA program).
World Health Organization (WHO)[14]	Sterilization should be monitored with BIs **at least daily**, CIs (each package) and physical indicators (each cycle). Loads containing an implantable device should be monitored with an additional biological indicator and quarantined until the results are available. Additional monitoring of pre-vacuum sterilizers should include a dynamic air removal test daily.	Sterilization should be monitored with BIs **at least daily**, CIs (each package) and physical indicators (each cycle).

1. Wood A. "Sterilization: AORN's Updated Guideline for Enhanced Patient Safety." Aorn.org. Published March 25, 2025. https://www.aorn.org/article/sterilization--aorns-updated-guideline-for-enhanced-patient-safety.
2. Rutala WA, Weber DJ, "Risk of Disease Transmission to Patients From 'Contaminated' Surgical Instruments and Immediate-Use Steam Sterilization." American Journal of Infection Control, 2023;51(11S):A72-A81. doi:10.1016/j.ajic.2023.01.019.
3. Curtis J Donskey, Marian Yowler, Yngve Falck-Ytter, Sirisha Kundrapu, Robert A Salata and William A Rutala, "A case study of a real-time evaluation of the risk of disease transmission associated with a failure to follow recommended sterilization procedures," Antimicrobial Resistance & Infection Control, 2014, 3:4 http://www.aricjournal.com/content/3/1/. https://www.researchgate.net/publication/259845846 - A case study of a real-time evaluation of the risk of disease transmission associated with a failure to follow recommended sterilization procedures/fulltext/54914b470cf2d1800d87dc07/259845846 – A case study of a real time evaluation of the risk of disease transmission associated with a failure to follow recommended sterilization procedures.pdf, https://europepmc.org/article/MED/24447336.
4. Rose Seavey, MBA, BS, RN, CNOR, CRCST, CSPDT, "Troubleshooting failed sterilization loads: Process failures and wet packs/loads." American Journal of Infection Control e29-e34. May 02, 2016. Volume 44, Issue 5, Supplement , https://www.ajicjournal.org/article/S0196-6553(16)00201-7/abstract.
5. Melissa K. Schaefer, MD, Kiran M. Perkins, MD, Ruth Link-Gelles, PhD, Alexander J. Kallen, MD, Priti R. Patel, MD, Joseph F. Perz," Outbreaks and infection control breaches in health care settings: Considerations for patient notification," American Journal of Infection Control, 2020 June; 48(6): 718–724. doi:10.1016/j.ajic. 2020.02.013. DrPH. https://stacks.cdc.gov/view/cdc/106780/cdc_106780_DS1.pdf, https://www.ajicjournal.org/article/S0196-6553%2820%2930136-X/fulltext.
6. Erica S. Shenoy, David J. Weber, Kathleen McMullen, Zachary Rubin, Priya Sampathkumar, Joshua K. Schaffzin, Emily Sickbert-Bennett, Laraine Washer, Deborah S. Yokoe, Audrey H. Calderwood, Raymond Chinn, Michelle Day, Sylvia Garcia-Houchins, Waleed Javaid, Susan Klacik, Erin Kyle, Rekha K. Murthy, Amber Wood, and William A. Rutala, "Multisociety Guidance for Sterilization and High-Level Disinfection," Infection Control & Hospital Epidemiology, (2025), 46, 561–583, al Epidemiology (2025), 46, 561–583 doi:10.1017/ice.2025.41. https://www.idsociety.org/practice-guideline/shea-multisociety-guidance-for-sterilization-and-high-level-disinfection/.
7. The Joint Commission, "Improperly sterilized or HLD equipment – a growing problem," Quick Safety, May 2017, Issue 33. https://digitalassets.jointcommission.org/api/public/content/213fdd160c78462195b9b76a031ae3f4?v=0fd8ce77.
8. Association for the Advancement of Medical Instrumentation. Comprehensive guide to steam sterilization and sterility assurance in health care facilities. ST79. (2017).
9. APIC. "Disinfection and Sterilization — APIC." Published 2019. https://apic.org/resources/topic-specific-infection-prevention/disinfection-and-sterilization/Association of periOperative Registered Nurses (AORN). Guidelines for Perioperative Practice. 2026 ed. Denver, CO: AORN, Inc.; 2026.
10. ANSI/AAMI ST58:2024 Chemical Sterilization and High-Level Disinfection In Health Care Facilities.
11. Association of periOperative Registered Nurses (AORN). Guidelines for Perioperative Practice. 2026 ed. Denver, CO: AORN, Inc.; 2026.
12. William A Rutala, David J Weber, and the Healthcare Infection Control Practices Advisory Committee (HICPAC), "Guideline for Disinfection and Sterilization in Healthcare Facilities, 2008," (June 2024): 77-78, https://www.cdc.gov/infection-control/media/pdfs/Guideline-Disinfection-H.pdf.
13. Healthcare Sterile Processing Association, Sterile Processing Technical Manual (CRCST 9th Edition). January 1, 2023.
14. WHO Library Cataloguing-in-Publication Data, "Decontamination and Reprocessing of Medical Devices for Health-care Facilities," (2016): 98-99, https://iris.who.int/server/api/core/bitstreams/d128e952-f919-4462-bdb0-392312908782/content.

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