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WaterWise

Issue
#1

Expertise and Smart Water Quality Management Newsletter

Kenneth Mayer,
Director of Marketing

VERDA's APIC Debut

Driving Water Quality for
Better Patient Safety

VERDA Water Quality Systems exhibited at [APIC 2025](#) in Phoenix, engaging with Infection Preventionists nationwide. While many focus on Legionella, few were aware of the new ANSI/AAMI ST108 standard for water quality in Sterile Processing. VERDA is helping bridge this knowledge gap, highlighting how Utility Water, Critical Water, and Steam impact surgical instrument safety and patient outcomes.



[First Case](#) is an operating room podcast bringing exciting interviews, engaging discussions, and innovative solutions that are changing the way patients receive surgical care. This episode features VERDA Water Quality Systems CEO, Jeff Paquet

Jeff Paquet, CEO

Why Water Quality Matters in SPD

Commentary on First Case's Beyond the Tap podcast interview

As a long-time advocate for water quality in healthcare, I can tell you that water plays a critical role in the sterilization process, yet it is often overlooked. At VERDA Water Quality Systems, we have seen firsthand how poor water quality can compromise patient safety and lead to costly errors in sterile processing. *(Continued page 2)*

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Water is essential for the proper function of cleaning agents and ensuring thorough sterilization, but it can also harbor dangerous contaminants. If not properly treated, water can introduce biofilm, corrosion, and endotoxins to instruments, which might evade sterilization, leading to surgical site infections (SSIs). This is why AAMI ST108 is so important—it sets the standard for managing water quality to reduce these risks.

Before AAMI ST108, water quality management in Sterile Processing Departments (SPDs) was inconsistent.

Now, AAMI ST108 provides prescriptive guidelines for all water used in sterile processing. Each hospital will need to evaluate how to best control water to ensure it is free from harmful contaminants that can affect sterilization and instrument longevity.

By taking a collaborative approach—working with teams in sterile processing, biomedical engineering, and facilities management—hospitals can meet AAMI ST108 standards and ensure patient safety.

In the end, managing water quality isn't just about compliance; it's about protecting patients and ensuring safe, effective sterilization. At VERDA, we're here to help hospitals navigate this process and create a water quality management plan that works.



Melanie interviewing Mary, an O.R. nurse from Raleigh, NC and Len for the ['Nurse on the Street' interview](#) at the 2025 AORN Expo in Boston, MA

Len Sparks, Director of Operations

Expert Advice

Why Water Quality Matters in the Operating Room

I had the pleasure [to speak with](#) an operating room nurse from Raleigh, North Carolina at the 2025 AORN global conference. She explained that she sometimes encounters spots on the instruments and trays, suspected it was due to the water, but did not know the details of why it was happening. For Mary, there was no spotting issue with instruments after they came out of the washers. The spots only appeared after sterilization.

I explained how it is important to have adequate water quality for the soaking and washing (Utility Water), the final rinsing (Critical Water), and the sterilization (steam quality).

I shared my conversation earlier at the conference with one facility that had to throw away a million dollars of instruments because the spotting and staining had permanently damaged them.

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(Len Sparks, continued)

I told her about one of our customers that was dealing with spots on instruments and their unsuccessful attempts over nine months to fix the issue.

Patients were experiencing delays and cancellations. Doctors were getting frustrated and upset and threatened to leave. It came to a head when a high-risk patient, due for open heart surgery, had their surgery cancelled. The family complained, and the story ended up on the local news. Switching to sterilizers that used Critical Water for the steam feed water solved this issue.

Several years later during an equipment upgrade, the facility went back to using facility steam to sterilize instruments. Out of 240 trays processed that day, 237 failed due to spotting.

I wrapped up my conversation with Mary that while she personally doesn't have to become a subject matter expert on water quality, someone on her team, whether inside the building or outside, needs to be able to understand how to produce and maintain high quality water and steam for the sterile processing department.

By understanding the guidelines in ANSI/AAMI ST108 and partnering with experts like VERDA Water Quality Systems, hospitals can take proactive steps to ensure high quality water and steam, successful instrument processing, improved surgical outcomes, and ultimately, patient safety.



Wendy Schultz, Water Quality Specialist

Going Beyond Compliance

How ANSI/AAMI ST108:2023 Site Evaluations Are Impacting Healthcare Facilities

When we visited the sterile processing department of a major medical center last spring, the staff thought they were doing everything right. Their equipment ran smoothly, instruments came out clean and shiny, and they had been operating without major incidents for as long as they could remember. But within hours of our comprehensive AAMI ST108 evaluation, we discovered Critical Water quality issues that could have compromised patient safety, and instrument and equipment longevity.

This is not unusual. What sets our process apart is the fact that we are not just checking boxes off, we are providing healthcare facilities with something no one else can: a complete map to water quality excellence that goes beyond compliance alone.

Our site visits are thorough, non-intrusive evaluations of every part of water systems used in the processing of medical devices. We inspect water treatment systems, distribution systems, sampling practices, and maintenance records.

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(Wendy Schultz, continued)

Most importantly, we collect samples of the water you are using every day and test them against ANSI/AAMI ST108:2023 standards for Utility Water, Critical Water, and Steam Condensate.

At this facility, our testing revealed elevated bacteria levels in their Critical Water system - 49 times higher than acceptable limits. This was caused by dead legs in their piping at each point-of-use, where water was stagnating and creating the perfect breeding grounds for harmful microorganisms. The non-recirculating design of their water distribution piping meant instruments were not getting the clean final rinse they thought they were getting.

But here's where the real value of our visit emerges: we do not just spot problems and report them, we design solutions. Our comprehensive report provided 49 specific recommendations, from quick fixes like installing programmable flushing valves to long-term infrastructure improvements like putting in UV irradiation systems.

Six months later, this facility had transformed their water quality program. Bacterial levels dropped below detectable levels, equipment performed better, and employee confidence soared to new heights. They had progressed from simply meeting standards to setting a new standard for excellence.

The opportunity for facilities is tremendous. Poor water quality does not just risk patient safety - it shortens equipment and instrument life, increases maintenance expenses, and creates long-lasting problems. Our evaluations reveal unseen inefficiencies and provide simple routes to improvement. This is healthcare transformation in action: turning compliance requirements into competitive advantages through expert analysis and strategic improvement.



Ted Cantin
Director of R&D

Regulatory Corner

Staying Updated on Sterile Processing Standards

Stay informed on the latest updates from the Association for the Advancement of Medical Instrumentation (AAMI) Sterilization. Here's a snapshot of what's happening:

Recently Released:

[TIR 109:2025](#), focusing on the External Transport of reusable medical devices for processing.

Under Development:

[TIR119](#), offering guidance on healthcare implementation documents. It aims to assist healthcare facilities in implementing AAMI ST108:2023, the Standard for water quality systems in medical device processing.

Under Revision:

[ST79](#), the Comprehensive guide to steam sterilization and sterility assurance in health care facilities. This significant revision is set to commence this fall.

Staying ahead of regulatory changes is essential for ensuring both compliance and patient safety. Keep an eye on these updates to ensure your team is prepared for the latest best practices and guidelines in sterile processing. We'll continue to monitor developments and provide timely insights to help you navigate the regulatory landscape with confidence.