

# SPEND LESS TIME AND MONEY REPROCESSING INSTRUMENTS

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Nothing strikes dread in the heart of the dental professional like asking them to clean, package and sterilize instruments. This is because it is tedious, time-consuming and the dental healthcare professional would much rather be chairside. The good news is newer technology has transformed the way we do everything, from ordering our favorite coffee drink via an app, to brand new cars and planes rolling off the assembly line built by robots programmed to do the heavy lifting.

We've observed a major shift in how work is done just in the past few decades and the sterilization

area is no exception. We now have machines that do the repetitive and labor-intensive tasks, reducing risk and liability and freeing the team members to focus on patient care and profitable activities. Not only is the reliance on the proper systems and equipment safer for our employees, it can also produce consistent results. Cleaning, disinfection, and sterilization can now be completed reliably, and allow for staff to incorporate quality control into the process. Computers can relay data and flag subpar standards before instruments are used, which results in safety for our patients as well. A high-performing modern practice will take advantage of equipment, products and steps that can easily

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be implemented to make time in this area not only safer, but more efficient and cost-conscious as well.

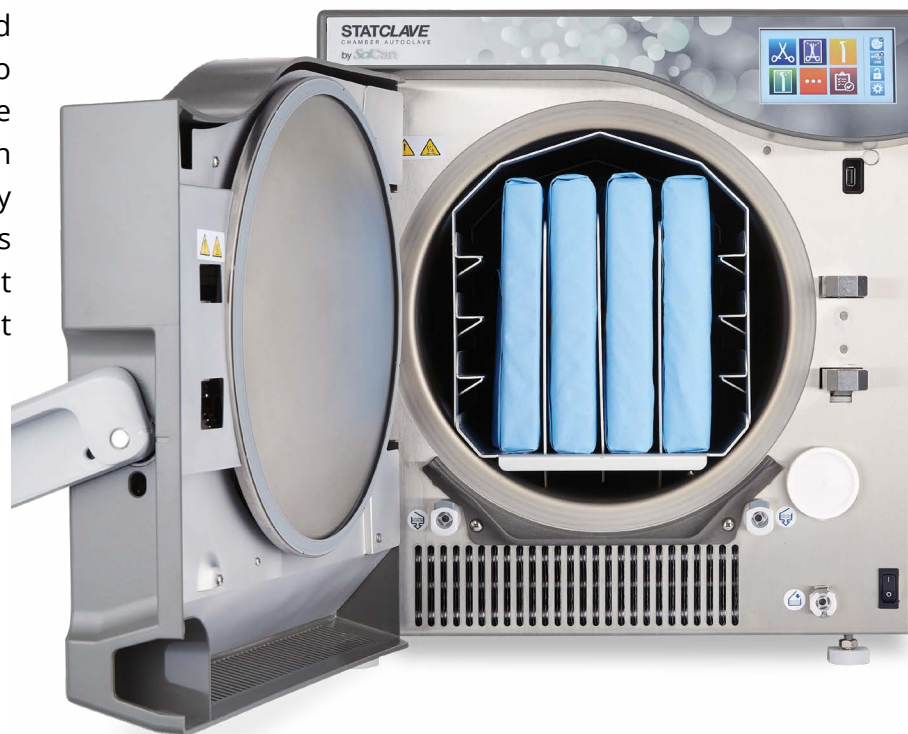
Let's start with Design. I work with a lot of new practice owners purchasing existing dental offices, some serving the community sometimes for 50 years. Once we ripped out the carpeting, we had to look at the design of the sterilization area. In one case, the room where the team clean, package and sterilize instruments was a former dark room, with barely enough space for one person to stand in. We now know the design of the sterilization area is very important. After reviewing the blueprint, we made minor adjustments to ensure there was enough space to package instruments. In addition, we ordered a larger sink, as the one in the schematic was too small for the basket that came with the ultrasonic.

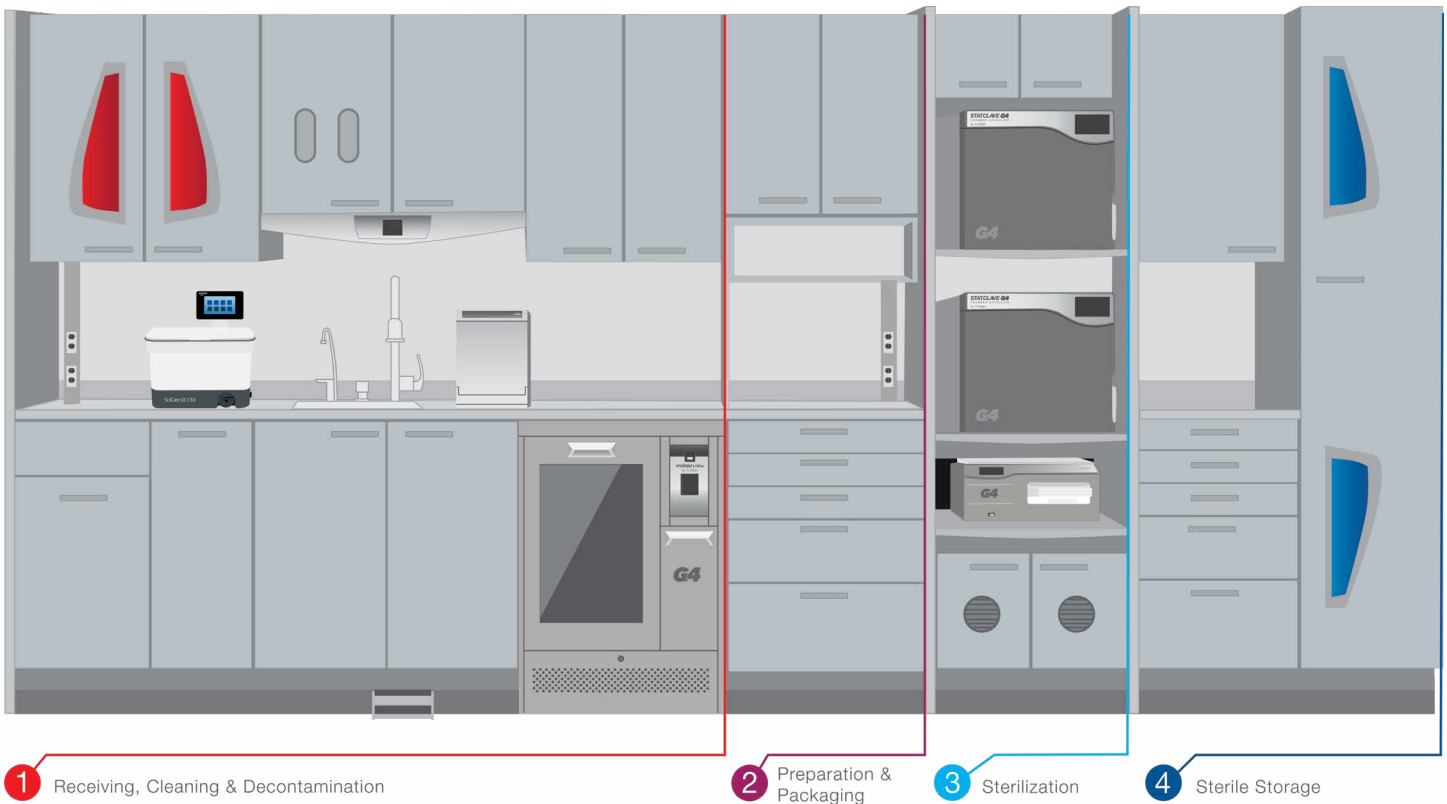
Some may wonder, "What does it matter if the sink is too small for the ultrasonic basket?" According to the Occupational Safety and Health Administration (OSHA), "Employers also must ensure that reusable sharps that are contaminated are not stored or processed in a manner that requires workers to reach by hand into the containers where these sharps have been placed." In other words, the basket that comes with the ultrasonic cleaner must be used to lift and lower the items so the employee does not have to reach into the equipment, regardless of whether they are wearing utility gloves. You can already see how proper planning of this space will save the practice headaches and money in the future.

And per the Centers for Disease Control and Prevention (CDC), this area should flow from the highest amount of contamination to the least amount of contamination and be separated into four areas:

1. **Receiving, Cleaning and Decontamination**
2. **Preparation and Packaging**
3. **Sterilization**
4. **Storage**

Let's look at this first area. Before the instruments even arrive to the steri-center, the use of cassettes chairside begins the timesaving. In fact, one major dental manufacturer was able to demonstrate how the use of a cassette could save the practice up to 10 minutes per instrument set. The first reason is the instruments would be neatly contained, eliminating the need to gather contaminated sharps from the bracket table. OSHA would consider the use of an instrument cassette as an appropriate engineering





control. This is important because these types of controls must be included in the practices' mandatory Exposure Control Plan.

The use of an instrument cassette also decreases the likelihood of lost instruments, premature dulling of instruments, percutaneous injury and increases time saved. No longer would you have to sort the instruments into sets. And as mentioned earlier, this manufacturer shows an estimated savings of a full hour each day. What could you do with extra time each day? As they say, "Time is money"!

Now let's move onto Cleaning. In the early days of modern dentistry, instruments were hand-scrubbed, and we were lucky if we

could also run it through an ultrasonic cleaner. Now we are fortunate enough to see ultrasonic cleaners with larger capacity and instrument washers and washer/disinfectors in our steri-center. The beauty of the latter is that you can load an instrument cassette into the washer, and it replaces the need to pre-soak, clean and dry - it does it all! This is extra time to work on more enjoyable and productive activities. Plus, the less time our team is exposed to contaminated sharps, the less likelihood of percutaneous injury.

Modern cleaning equipment have computers so that the operator receives a notification if the cleaning process was insufficient. This is helpful to prevent bioburden from being baked onto the instruments during sterilization. If organic debris is observed once the package is opened, the items would need to go back to the front of the sterilization line and reprocessed. The use of an automated cleaning



system simplifies cleaning and lessens the likelihood of having to repeat these steps. Like the rotisserie commercial says you can just “Set it and forget it!”

When packaging instruments, the options include a blue wrap or instrument pouch. The CDC recommends an external indicator if the internal indicator is not clearly visible. Purchasing a pouch with a built-in internal indicator saves time and prevents the employee from having to manually include a separate indicator in each set. Tip: remember to include an internal indicator in each wrapped cassette too!

The following information should be included on the packaging regardless of what is being used:

- **Sterilizer used**
- **Cycle or load number**
- **Date of sterilization**
- **Expiration date, if applicable**

The biggest time consumer here would be labeling the packages with all this information. Consider a marker used exclusively for sterilization. Better yet, how about a load label? These can be set ahead of time with the information the CDC recommends and can be applied with a device that looks like a pricing gun. In under 30 seconds everything going into the cycle will have the correct information.

When it comes to sterilization, considerations should include length of cycle and size of the chamber.

A sterilizer with larger capacity and shorter sterilization and dry times is ideal! Computers and automation again come into play with sterilizers. A

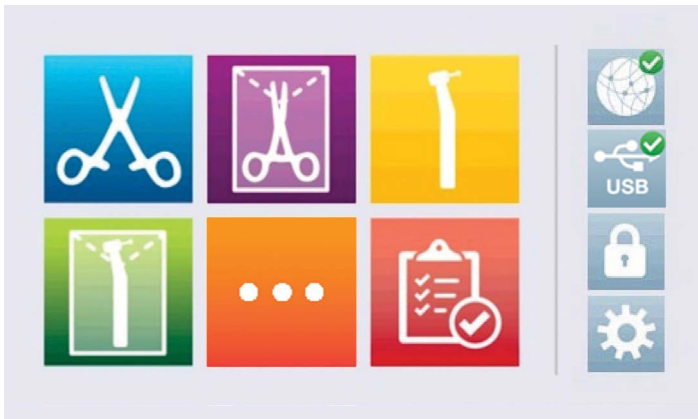
machine that automatically fills with water saves time and eliminates the need to store, lug, and lift heavy water bottles. One that also provides the operator with electronic verification of cycle parameters being met prevents the need to store rolls of paper from each cycle.

The CDC states the sterilizer should be monitored via biological (weekly spore strip), chemical (mentioned earlier), and mechanical means. While the latter do not guarantee sterility, they allow the end user to become aware of any errors contributing to a potentially failed cycle. This type of monitoring should be completed with every load.

Another note about mechanical monitoring involves “checking gauges, computer displays and printouts and documenting in your sterilization records that pressure, temperature, and exposure time have reached the levels recommended by the sterilizer”. A time- and work-saver here would be to have a sterilizer that notifies you if the cycle failed and provides troubleshooting. This would save money that normally would’ve been spent on a technician.

With some minor enhancements, this last step, Storage, can also pay dividends. Having clearly defined areas like





cabinets and drawers designated for sterile items decreases the likelihood items will get lost or that an unprocessed package would be used. Packaged instruments stored properly also prevents breaches that would require reprocessing of those items all over again.

Just as important as action are words. Communication is key when it comes to protecting the employee and increasing morale in this department. Written Standard Operating Procedures set the norm that everyone should follow. It can also lessen onboarding time with new hires and decreases risk and injury. Regular safety continuing education exposes the team to ideas on working safer, eliminating redundancy, trimming costs, and incorporating new technology.

Employers should offer and remind their staff of the practices' "open door" policy. That is, the doctor should continuously remind the team - during morning huddles, at team meetings, via a sign in the break room - that if they observe an unsafe scenario, or know of a better way to streamline processes, they are encouraged to share this with

the doctor. By uncomplicating steps, incorporating the right equipment and educating on the proper requirements, the practice will have created a culture where patients feel protected, employees feel inspired, and the practice thrives!



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is an award-winning national speaker, author of numerous articles and CE courses on safety in dentistry, and a trainer for practices and health-care systems across the country. She earned her BA from the Ohio State University and her MBA with concentrations in Healthcare Administration and Business Management. After graduating, Karen was recruited from the Emergency Department to her roles as Assistant Director of Sterilization Monitoring and Health and Safety Director for the OSU College of Dentistry. She currently trains and consults dental practices across the country in OSHA and Infection Control and speaks nationally on the topic