

Safety management programs

The infection control and safety considerations behind a successful program

by Olivia Wann, RDA, BS

As dental professionals, our training and education prepares us for patient care. Once hired into our jobs, whether as dentists, hygienists, assistants, or administrative staff, we soon learn how to multitask and juggle patient care, administrative duties, and, oh yes, safety management. Whether we are the experienced safety coordinator, newly appointed OSHA compliance coordinator, or efficient team member who willingly takes on more responsibilities, we strive for success in our safety management programs. Safety should never be compromised due to a busy schedule or a lack of information.

A familiar question in the office might be, “So who’s in charge of OSHA around here?” Another familiar statement might be, “I’ve been stuck with a dirty needle! What do I do now?” Perhaps a dusty pile of Material Safety Data Sheets awaits the attention of someone in the office. Safety policies may be either nonexistent or need updating. Weekly spore testing documentation may not be available. To launch a successful safety management program, someone must take the lead in training staff and developing policies. Is that safety person you?

Welcome to the world of safety. Rather than feeling defeated by a huge, serious assignment, approach safety management systematically. Carefully review OSHA’s Bloodborne Pathogens Standard (<http://www.osha.gov/Publications/osha3186.pdf>) and CDC’s latest infection control guidelines for dental office settings (<http://www.cdc.gov/oralhealth/infectioncontrol/guidelines/index.html>). Remember, faulty systems lead people to make mistakes. Not having a program or limping by on a weak, outdated system can lead to errors, citations, and compromised safety. For example, in one busy office, a batch of non-sterile instruments was erroneously released for distribution. In another busy practice, surgical forceps remained caked with blood (see Figure 1).

We live in a culture of blame, particularly in health care.¹ The medicolegal environment and its tort process reinforce the assignment or shifting of blame. If you take the lead in safety management, you realize how important it is to gain the cooperation of your team members. Blaming previous employees or pointing fingers at weak employee performance does not strengthen the process. Keep in mind if we depend on a team member, we are often disappointed. Create a system and de-

pend on the system. Regardless of any practice hiccups, such as a new hire, an employee on maternity leave, or an employee who calls in sick, our system must remain intact.

Assess what documentation must be put into place. Educate yourself on how to put the program together, or outsource the project to a reputable compliance group. Note OSHA’s requirements: “Employers shall ensure that all employees with occupational exposure participate in a training program which must be provided at no cost to the employee and during working hours.” 29 CFR 1910.1030(g)(2)(i) The frequency is noted as, “At least annually thereafter.” 29 CFR 1910.1030(g)(2)(ii)(C) An evaluation of a safer medical device should be included. Ensure the development of a Work Exposure Control Plan that includes a protocol for exposure incidents.² The “system” is to prevent needlesticks and sharps injuries.

The CDC estimates that health-



Figure 1: Surgical forceps caked with blood

care workers sustain 385,000 needlesticks and other related sharps injuries in hospital-based settings annually, which amounts to 1,000 sharps injuries daily. Unfortunately, no data is available for dental office settings due to a lack of surveillance systems.³

The most common infections occupationally transmitted via sharps injuries during patient care include hepatitis B, hepatitis C, and HIV. The CDC also notes that the risk includes herpes, malaria, and *M. tuberculosis*.⁴

Costs associated with postexposure management of health-care personnel range from \$500 to \$3,000.⁵ The CDC revealed that if a worker is infected, the cost to treat the person's bloodborne illness during a lifetime is estimated at \$1.0 million. This data has captured the attention of lawmakers and safety groups.

Assess your dental office. How can you make the workplace safer and comply with the latest infection control guidelines?

This article is merely an overview of the many facets of job safety and infection control. For the purpose of this discussion, I will start with the sterilization area. In compliance with OSHA's Hazard Communication Standard, you should affix chemical identification labels to secondary containers such as the ultrasonic unit, the high level disinfectants, plaster and stone bins, COE cleaner container, alcohol containers, spray bottles, and more. (29 CFR 1910.1200) Assure the "dirty" to "clean" flow of your central sterilization area.⁶ This common violation requires simple changes. Wear heavy-duty utility gloves when handling loose, contaminated instruments. Use an automatic process for precleaning the instruments, such as an ultrasonic unit or a dental instrument washer (see Figure 2).



Figure 2: Dental instrument washer

If instruments cannot be precleaned immediately, soak them in an enzymatic cleaner or use an enzymatic spray precleaner to prevent drying of debris, which can make autocleaning ineffective. Test the ultrasonic unit or dental instrument washer routinely to assure maximum performance. Log your results in your quality control records.

Loose instruments should be placed in appropriate containers at the point of use to prevent sharps injuries during transport to the sterilization area.⁷ If you are not currently using the instrument cassette system, consider its advantages: the cassettes allow procedural sets of instruments to remain intact throughout use, transportation,

cleaning, sterilization, and storage process.⁸ Ponytail holders are not recommended in maintaining a procedural set due to the inability of the cleaning agent to effectively clean between instruments, as well as the increased potential for sharps exposure.

When using the cassette system, instruments should be returned to the cassette and locked into place, thus reducing the risk of a potential injury. As pictured, the cassette should be wrapped to maintain sterility during storage (see Figure 3). Secure the packaged cassette with autoclave tape.⁹ Place other instruments and items in autoclave pouches. Date the packages and ensure effectiveness of the sterilization process with mechanical, chemical, and biological monitors. Note that, "critical and semicritical instruments that will be stored should be wrapped or placed in containers (e.g., cassettes or organizing trays) designed to maintain sterility during storage."¹⁰ Gone are the days of opening mobile cart or cabinet drawers and seeing loose instruments.

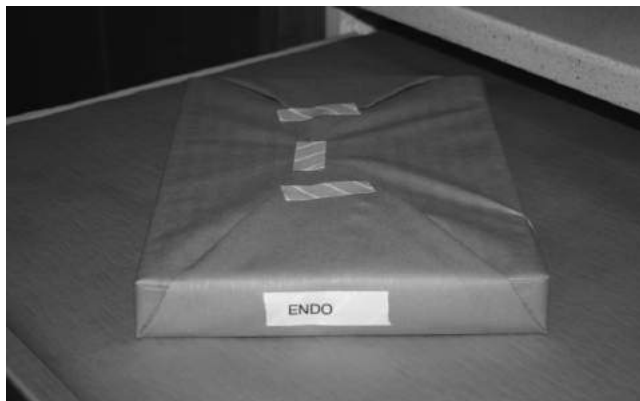


Figure 3: Wrapped cassette

Use devices intended for

heat sterilization that are approved by the Food and Drug Administration (FDA). Pressure cookers and toaster ovens are not FDA-approved as medical devices. Never overload a sterilizer's chamber. Follow the manufacturer's instruments instructions for sterilization. Remember — to prevent transmission of bacteria from your hands to the packaging material, allow the instrument packs to dry inside the chamber before moving and handling the packs or cassettes. Damp packages are not considered sterile, so inspect packs prior to storage. Store cool and dry instrument packages and cassettes in closed or covered drawers or cabinets.

Maintain the sterilizer according to the manufacturer's operating instructions, including routine replacement of the gaskets and using recommended cleaners. Include the maintenance performed in your quality control records.

Most states require a minimum of weekly biological monitoring for quality assurance. Most sterilization failure is traced to human error such as overloading, inadequate space between instrument packs, and improper or excessive packaging.¹¹ Maintain an orderly logbook for easy reference or site audits.

Look carefully at your treatment rooms. Are sharps containers available? Are surface barriers used for hard-to-clean surfaces? Are items stored in cabinets and drawers to avoid cross-contamination? What kind of surface disinfectant is being used?

Surface disinfection seems simple, yet this area begs for our attention. First, determine the type of product in use and compare how you are currently using it to the manufacturer's instructions. Deviation is frustrating and can result in compromising safety. This is often the result of not reading product labels or not staying current on infection control training.

As we learned in school, we must first "clean" the surface before applying the disinfectant. Many offices use premoistened wipes, but using wipes does not mean merely pulling out one wipe and miraculously disinfecting the entire operatory with one swoop. Ascertain whether the wipe may be used as a cleaner. If so, use the first wipe to clean the surface to remove debris and bioburden. Discard this wipe. Next,

use a second wipe to disinfect the precleaned surface. Follow the instructions for appropriate contact times. Discard the wipe. And remember that some wipes cover a limited surface area such as three-square feet.

Simply taking the time to evaluate the practice's documentation, training needs, set up and flow of the sterilization area, instrument management, and disinfection of the treatment rooms reminds us how important our jobs are in promoting job safety among our fellow team members, as well as safe dental treatment for our patients. The provision of dental care does not stop when the patient is dismissed — intensive effort is needed to properly decontaminate the treatment room and process the instruments. Nothing is left to chance.

In summary, learning about safety management and infection control is a critical task for dental health professionals. Taking the lead in this assignment, drafting the necessary policies and procedures, and providing training for staff will help dental offices comply with the regulations and established guidelines. ●●●

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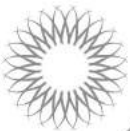
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