



Infection prevention and your bottom line

When the OSHA Bloodborne Pathogens Standard was first enacted in 1991, several studies were conducted to substantiate the cost of infection control or prevention procedures for dentistry. Although there was some variation, the average cost was estimated to be about \$15 per patient visit. This number included the cost of disposable items and barriers, personal protective equipment such as gloves and masks, replacement and repair of handpieces due to required sterilization, the cost of sterilization equipment, and the use of disinfectants.

There was some discussion years ago about adding an “infection control fee” to dental procedures to help cover these costs. But it was determined that insurance plans would not pay this fee, since infection control costs were considered an inherent part of all dental procedures. And most dental practices believed that it would be an administrative hardship to try to collect these fees directly from patients.

This concept was modeled after the medical health care delivery system, where billing for services is itemized, including consumable items used for procedures or surgeries. This model was determined not to be appropriate for the delivery of dental health care services.

We now know from 20 years of experience that our efficiency was negatively impacted initially by the new requirements, and that our supply costs in many cases increased significantly. Infection prevention has now, for the most part, become second nature so that we don't always think of the financial impact of these procedures and protocols.

In the current economic crunch, it makes sense to revisit these costs to determine whether there are ways to decrease some of the cost without negatively impacting the quality of care. This article will examine three categories of expenditures — disposables and consumables, equipment, and staff time — and make recommendations for cutting costs without compromising quality of care.

For more on this topic, go to www.dentaleconomics.com and search using the following key words: *infection control, bloodborne pathogens, dental equipment, Mary Govoni.*

Disposables and consumables and ‘going green’

While there is a growing movement within dentistry to “go green” and use less disposable and more reusable items, this may or may not be the most effective strategy in terms of the bottom line and patient safety. Some experts are recommending the use of reusable cloth pouches for instrument packaging prior to sterilization. While this may save money in the long term and cause less waste from disposing of paper pouches and wraps, these cloth packs must be laundered frequently to keep them presentable for patients.

After a number of sterilization cycles, the cloth pouches tend to discolor, making their appearance less appealing to patients (and team members). This discoloration may also lead to staining of the instruments. During a time when we need to be more effective than ever with our internal marketing strategies, having patients think that instruments are stored in “dirty” bags may be counterproductive.

Another “green” recommendation is to use reusable, cloth barriers on equipment, rather than disposable plastic barriers. Again, it may not be the most practical strategy, since the barriers must be washed after each use. In an average practice that may see 20 patients per day, this adds up to a great deal of laundry that must be done, using soap, water, and electricity.

Some of these cloth barriers may also be porous, which would allow contamination from spatter or aerosol to potentially soak through onto surfaces. If that is the case, the surfaces must be disinfected underneath the barriers, which increases the time necessary to turn around a treatment room and uses more chemicals (disinfectants) and applicators (gauze or paper towels). While switching to reusables may be effective, it should be closely evaluated for the hidden costs of reprocessing these items.

When selecting disinfectants and ultrasonic cleaning solutions, choose a product that is effective and meets your specifications which includes EPA registrations and CDC guidelines. But also consider products that have the least amount of packaging.

This not only decreases their cost, but also makes them more environmentally friendly. In addition, selecting instrument cleaners that are tablets or powders can be less expensive due to decreased packaging. These products also

require less storage space, which always seems to be at a premium in dental facilities. Purchasing liquids that come in concentrated forms saves on packaging as well.

Equipment and proper maintenance

For the sake of this article, dental handpieces and instruments, ultrasonic scalers, sterilizers, and operatory furniture are considered equipment in dental facilities. These items require substantial investments and should be meticulously maintained to maximize their useful life. Always follow the manufacturer's directions for handpiece maintenance, cleaning, use of sterilizers, and maintenance of ultrasonic and piezoelectric scalers.

Be aware of manufacturer's recommendations for or against using surface disinfectants on some equipment, and follow the manufacturer's guidelines for cleaning and sterilizing ultrasonic inserts. Protecting the inserts as well as hand instruments can be accomplished by placing these items in cassettes for cleaning and/or sterilization. A dental facility should establish a schedule for cleaning and maintenance on all equipment.

Dental operatory equipment, such as patient chairs, can last much longer if the manufacturer's instructions for cleaning and disinfection are followed. Barriers help to protect and preserve upholstery. High-alcohol disinfectants may cause the upholstery to dry out and crack. Be sure to follow the product instructions for use because good maintenance prevents costly repair bills.

Staff time and efficiency

The last thing to consider is efficiency and how inefficiency affects the bottom line. For example, instrument processing can be a time-consuming process in a busy practice. Preparing instruments for sterilization can be time-consuming if the facility is breaking down trays, placing individual instruments in the instrument cleaner (ultrasonic), sorting, and then packaging prior to sterilization. Investing in an instrument management system, such as cassettes, can decrease the amount of time spent on instrument handling by five to 10 minutes per procedure and provide a safer environment for team members.

When instruments are packaged in a cassette, they do not have to be placed individually in the ultrasonic, and team members are less likely to poke themselves with the contaminated, sharp ends of the instruments. The entire cassette goes in, saving valuable time.

More time is saved when the instruments are packaged since the entire cassette can be placed in a pouch or wrapped, rather than having to sort instruments to put them back together in a specific procedure setup and then packaging them. This also extends the useful life of instruments and reduces the number of missing instruments.

The less time team members spend reprocessing instruments, the more time they have to interact with and provide

services to patients. The investment in a cassette system can be quickly returned to the practice by way of increased production.

Investing in storage tubs to organize materials and other items needed for specific procedures can also increase efficiency. When setting up an operatory for a procedure, an instrument cassette and procedure tub can be retrieved from a storage area.

For the most part, the room is then ready, except for some disposable items. This saves a tremendous amount of time retrieving items from drawers or other storage areas each time a treatment room is set up. It also saves time if the procedure changes, as it frequently does during treatment.

For example, if the patient was scheduled for a filling, but it is determined that core build-up and a crown are needed, the tubs can be easily and quickly switched to have the appropriate materials and items available, minimizing cross-contamination in the process.

The maintenance and periodic cleaning of waterlines is another area of infection prevention that lends itself to greater efficiency. Utilizing waterline cleaners that must be left in the unit for long periods of time and then purged back out is time-consuming.

Continuous-use products for waterline maintenance that can be added into the water bottle at each refill save valuable chair time, without compromising effectiveness. Additionally, utilizing a complete dental unit waterline system that includes both a cleaner and a maintenance product could help minimize the cost of delivering potable drinking water to your patients. In addition, it protects your equipment and ultrasonic scaling units, extending their useful life.

Conclusion

Watching the bottom line is not just about buying the least expensive products. While it is important to compare products and their costs, it is also important to invest in systems and protocols that will assist in maintaining existing equipment and decrease the number of needed repairs or replacement. It is critical to take measures that protect you, your staff, and your patients, while evaluating efficiency and effectiveness in the delivery of care.

Take the time to evaluate your supply costs, implement scheduled maintenance procedures for equipment, and assess the efficiency and safety of procedures. If you do, you may have reason to celebrate increases in the bottom line without compromising the high quality of your infection prevention procedures. **DE**

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