

OREGON DEPARTMENT OF CORRECTIONS
Operations Division
Health Services Section Policy and Procedure #P-B-01.5

SUBJECT: STERILIZATION AND INSTRUMENT PROCESSING

POLICY: Health Services will maintain an effective sterilization process for contaminated non-disposable medical, dental, and laboratory instruments. It is important that infection-control procedures are performed correctly and that appropriate products and equipment involved are selected and used as directed by the manufactures.

REFERENCE: PRS 818-021-0010
OSAP Organization for Safety & Asepsis Procedures
OSD Infection Control Guidelines
CDC Guidelines for Sterilization
OSHA
American Dental Association
Oregon Board of Dentistry

DEFINITIONS: Disinfecting: Is the destruction of pathogenic and other kinds of microorganisms by physical or chemical means. Disinfecting destroys the majority of recognized pathogenic microorganisms, but not necessarily all microbial forms.

Sterile: Free from all living microorganisms.

Sterilization: Use of physical or chemical procedure to destroy all microorganisms including substantial numbers of resistant bacterial spores.

Personal Protective Equipment (PPE): Gloves, shoe and clothing covers, face protection used for protection of one's self.

PROCEDURE:

- A. Contaminated instruments are to be handled carefully to prevent exposure to sharp edges that can cause a percutaneous injury.
- B. Instruments are to be placed in an appropriate container at the point of use to prevent percutaneous injuries during transport to the instrument processing area.

C. All instruments are to be processed in a designated area. This area will be divided into sections. When physical separation cannot be achieved, spatial separation is okay as long as all employees follow the process. The areas are: receiving, cleaning, and decontamination; preparation and packaging; sterilization; and storage.

1. Receiving, cleaning and decontamination with ultrasonic:
 - a. Health Services Personnel must use appropriate PPE during instrument cleaning/sterilization procedure. This includes eyewear, gowns, and utility gloves.
 - b. Instruments received in processing for sterilization are placed into the ultrasonic cleaner for 5 to 10 minutes.
 - c. If instruments cannot be cleaned immediately, pre-soaking or maintaining them in a moist environment may improve the cleaning process.
 - d. Insure that instruments are rinsed thoroughly.
 - e. Visually inspect the instruments for residual debris and damage. If debris is still present and manual, cleaning is necessary use work-practice controls that minimize contact with sharp instruments, e.g., long-handled brush. If the instrument is damaged, remove from service as per institution policy.
 - f. Soak instruments in an anti-rust solution/surgical milk as needed.
 - g. Dry instruments before packaging unless soaked in instrument milk solution.
 - h. Follow manufactures' recommendations to lubricate head pieces and/or use rust inhibitors that are appropriate for the sterilization process as needed.
2. Receiving, cleaning, and decontamination without ultrasonic.
 - a. Health Services personnel must use appropriate PPE during instrument cleaning/sterilization procedure. This minimally includes eyewear and utility gloves.

- b. Instruments must be washed/scrubbed with an appropriate instrument detergent and brush. Use work-practice controls that minimize contact with sharp instruments.
- c. Unless not indicated by specifications for the instrument, if instruments cannot be cleaned immediately, pre-soaking or maintaining them in a moist environment may improve the cleaning process.
- d. When using Sporox, the instruments must be soaked for at least 30 minutes, but not longer than 6 hours. The Sporox solution must be changed weekly. The bottle of Sporox used to fill the soaking container once opened, must be discarded after 21 days.
- e. After soaking and cleaning, ensure that instruments are rinsed thoroughly.
- f. Visually inspect the instruments for residual debris and damage. If the instrument is damaged, remove from service as per institution policy.
- g. Dry instruments before packaging.

3. Packing

- a. Package in a cleaned, low-contamination environment, with use of self-seal pouch or cloth wrap with indication tape.
- b. Loose instruments should be packaged so that they lay in a single layer, not wrapped up so tightly as to exclude exposure to the sterilizing agent.
- c. Avoid excess packaging material by using appropriately sized (not over-sized) packaging materials.
- d. To maintain integrity of the package, seal according to manufacturers guideline; do not use staples, pins, or paper clips to seal packages.
- e. Label information is written with pencil or grease pencil on tape and then the tape is placed on the package. Do not use ink on paper packaging material.
- f. Packages are dated with the date processed, using methods that do not compromise the integrity of the wrapping material.

- g. The shelf lives of wrapped instruments processed through a sterilizer are event-related. Thus, the shelf life of a package is compromised when torn, punctured, moistened or after 6 months from the time of sterilization.

4. Sterilization

- a. Load the sterilizer according to manufacturers' instructions.
- b. Do not overload the sterilizer.
- c. Place packages on the edge, in single layers, or on racks to increase circulation of the sterilizing agent around the instructions.
- d. Use manufactures' recommended cycle times for wrapped instruments.
- e. Operate the sterilizer according to manufactures' instructions
- f. Allow packages to cool and dry before removing them from the sterilizer.

5. Storage

- a. Store instruments in a clean, dry environment in a manner that maintains the integrity of the package.
- b. Rotate packages so that those with the oldest sterilization dates will be used first.

D. Monitoring of sterilization procedures will include a combination of process parameters including mechanical, chemical, and biological.

- 1. Each time the sterilizer is operated; staff is to observe cycle time, temperature, and pressure using gauges, displays, and/or printouts.
- 2. At the completion of each operation of the sterilizer, staff is to check chemical indicators on the packaging materials of placed with the instruments.
- 3. At least weekly conduct a biological test utilizing biological indicators supplied by BMS; an outside testing facility.

4. Follow BMS guidelines regarding positive spore test results.
5.
 - a. Purchase Maxi-Test, Biological Monitoring tests from Henry Schein through DOC medical stores.
 - b. Remove the small blue glassine envelope marked TEST STRIP from the mailing envelope.
 - c. Place blue TEST STRIP envelope in the center of the sterilizer with a normal load and process.
 - d. Upon completion of the cycle, remove test strip from the sterilizer and return to mailing envelope.
 - e. Seal envelope; complete all information on the envelope and mail.
 - f. Test results will be mailed to your office quarterly. Test failures will be reported immediately by phone, fax, or email. Test failures reported by phone will receive confirmation by mail.
 - g. Keep record of all quarterly reports for accreditation purposes.
 - h. Store in a cool, dry place away from sterilizers, other heat sources and chemical products.
 - i. Dispose of expired strips through autoclaving or incineration.
- E. Follow manufactures' instructions for weekly and monthly maintenance of the sterilizers.

Quality Assurance program:

- A. An effective quality assurance program that incorporates training, record keeping, maintenance, and use of biological indicators should be in place.
 1. Training will include:
 - a. Selection and use of PPE when appropriate

- b. Proper use of and interpretation of chemical, multi-parameter, and biologic indicators.
 - c. Proper use of all equipment and supplies including sterilizers, cleaners, packaging materials, sealer, cassette, etc.
 - d. Testing of the ultrasonic cleaner (Tested by holding aluminum foil in solution for 30 seconds; then hold up to light and look for small holes).
2. Record keeping will include sterilization cycle parameters, equipment maintenance, and biologic monitoring results.

Effective Date: _____

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