

OREGON DEPARTMENT OF CORRECTIONS
Operations Division
Health Services Section Policy and Procedure #P-B-01.6

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

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,

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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.

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- 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

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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.
 - a. Purchase Maxi-Test, Biological Monitoring tests from Henry Schein through DOC medical stores.

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- 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).

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2. Record keeping will include sterilization cycle parameters, equipment maintenance, and biologic monitoring results.

Effective Date: _____

New P&P dated: October 2008

Supersedes P&P dated: N/A