



MONTANA STATE PRISON OPERATIONAL PROCEDURE

Procedure:	MSP HS E-06.8 DENTAL INFECTION CONTROL
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I. PURPOSE

Provide an effective infection control program to ensure a safe and healthy environment for both inmates and staff by preventing the transmission of disease and pathogens in the dental health care setting at MSP.

II. DEFINITIONS (see Glossary)

III. REQUIREMENTS

A. Dental Staff

1. Education and Training
 - a. All dental staff are required to attend the MSP Dental Services Infection Control training program upon initial employment with MSP Dental.
 - b. All dental staff should attend annual training on Infection Control, Bloodborne Pathogens, and Occupational Exposure to Bloodborne Pathogens.
2. Immunization
 - a. Upon initial employment with MSP Dental Services, all dental staff should:
 - 1) receive the Hepatitis B vaccine series, or
 - 2) provide proof of prior vaccination.
 - b. Dental staff may request, or be requested, to receive a Hepatitis B booster or an HBV titer evaluation to ensure adequate protection from Hepatitis B.
 - c. MSP recommends annual flu vaccines and a Tuberculosis test.
3. Post Exposure Prevention and Management
 - a. Refer to MSP Health Care procedures related to exposure to bloodborne pathogens and other potentially infectious materials.
4. Work-Related Illness
 - a. Dental staff who have developed an illness or medical condition that could render them more susceptible to opportunistic infection or exposures should:
 - 1) strongly consider staying away from work; or
 - 2) request temporary reassignment to a non-clinical setting.
 - b. Dental staff with an illness that could be transmitted to other staff members or inmates should strongly consider staying away from work.
 - c. If deemed necessary, the Chief Dental Officer or Department Dental Services Supervisor can request a staff member stay away from the work area.

- d. Dental staff with suspected occupational contact dermatitis or suspected latex allergy should seek medical treatment.
 - 1) Temporary restrictions may be placed on dental staff as part of the treatment plan for the condition.
- e. Dental staff members should not be penalized because of time off taken or work restrictions, due to developing an illness or medical condition.
 - 1) In cases of long-term restrictions or time off, MSP Human Resources will need to be involved and related requirements followed.

B. Bloodborne Pathogens and Other Potentially Infectious Material

- 1. HBV Vaccination
 - a. MSP procedures and CDC recommendations should be followed for all dental staff.
- 2. Medical Sharps
 - a. Consider all medical sharps (needles, scalpel blades, sharp instruments, wires, etc.) as potentially contaminated with bloodborne pathogens.
 - 1) Appropriately utilize commercially produced sharps containers for disposal of all medical sharps, anesthetic carpules, extracted teeth, and other small solid medical waste materials.
 - 2) Utilize needle capping devices such as disposable needle protectors or needle cap holders for anesthetic syringes.
 - 3) Evaluate and consider new devices as they come available that could assist in the reduction of potential exposure to bloodborne pathogens.
 - 4) MSP and CDC post-exposure management recommendations should be followed after exposure to potential bloodborne pathogens or other potential infectious material.
- 3. Hand Hygiene
 - a. Hand Hygiene Products
 - 1) For soap and water, always utilize antimicrobial or non-antimicrobial soap and water when hands are visibly contaminated with blood or other potentially infectious material.
 - 2) Alcohol-based hand cleaner may be utilized when hands are not visibly contaminated.
 - b. Always clean hands:
 - 1) when visibly soiled;
 - 2) after touching potentially contaminated surfaces;
 - 3) before donning gloves; and
 - 4) after removing gloves when treating patients.
 - c. Store liquid hand care products in disposable closed containers or in containers that can be washed and dried before refill.
 - 1) Do not refill partially empty containers.
 - d. Glove Use
 - 1) Consider compatible lotions to prevent dry or chafed hands.
 - 2) Keep fingernails short and smooth.
 - 3) Wear only hand jewelry that will not compromise the integrity of the gloves.
- 4. Personal Protective Equipment (PPE)
 - a. Mask
 - 1) A surgical face mask should be utilized whenever there are risks from splattering or aerosol contamination.
 - 2) Change mask between patients or if the mask becomes moist.
 - b. Glasses and Face Shields
 - 1) Wear glasses and face shields whenever there is a potential for splattering or aerosol contamination.
 - 2) Clean and disinfect between patients.

- c. Protective Clothing
 - 1) Wear protective clothing to cover personal clothing and exposed skin.
 - 2) Change the protective clothing if it becomes visibly soiled.
 - 3) Remove protective clothing before leaving the dental clinic at the end of the workday.
 - d. Gloves
 - 1) Appropriately sized disposable medical gloves should be worn whenever there exists a potential for contacting blood, saliva, or other potentially contaminated material.
 - 2) Always change gloves:
 - a) between patients;
 - b) after contacting contaminated surfaces or before touching non-contaminated surfaces or objects; and
 - c) if they become torn, cut, or punctured as soon as possible.
 - 3) Wash hands before donning new gloves.
 - 4) Do not clean gloved hands with the intent of reusing the disposable gloves.
 - 5) Wear appropriately sized, puncture- and chemical-resistant utility gloves when cleaning instruments and performing housekeeping tasks in potentially contaminated areas.
 - 6) It is recommended to utilize sterile surgeon's gloves when performing oral surgical procedures.
 - e. If one item is needed (gloves, mask, eye protection) for chair side and cleaning instruments, then all three should be utilized.
5. Hearing Protection
- a. Disposable ear plugs are available in MSP dental clinics and their utilization is encouraged.
 - 1) Hearing damage has been attributed to long term exposure to noises common in dental clinics, such as noise from dental drills and suctions.

C. Sterilization

- 1. Always clean and sterilize all dental instruments utilized in direct or indirect patient care.
- 2. Cold sterilize any non-disposable dental instruments that cannot withstand the heat sterilization process.
- 3. Whenever possible, utilize disposable items (or instruments that can be heat sterilized) to replace instruments that cannot be heat sterilized.
 - a. Do not reuse disposable items.
- 4. Always confirm the instrument count and transport the instruments to the sterilizing room before releasing the inmate from the dental chair.
- 5. Minimize handling of loose contaminated instruments during transport to the sterilization room or area.
 - a. Utilize containers, when possible, to minimize potential for exposure.
- 6. Clean all visible blood and material from the instruments.
 - a. The ultrasonic cleaner should be utilized as part of this process.
- 7. When hand scrubbing instruments prior to placing in the ultrasonic cleaner, use great care to decrease potential exposure to contaminants and bloodborne (or other) pathogens.
 - a. Utilize long handled scrub brushes for manual cleaning.
- 8. Clean, lubricate, and heat sterilize all removable handpieces following manufacturer's recommendations.
- 9. Utilize appropriately sized, puncture- and chemical-resistant utility gloves and personal protective equipment when processing non-sterile instruments.

10. Always keep non-sterile instruments or items in the designated non-sterile instrument processing areas.
11. Inspect instruments for cleanliness before placing the instruments in sterilization pouches or instrument cassettes.
12. It is recommended that instrument pouches should be placed **paper** side up, as this allows for proper drying.
 - a. If the **plastic** side is up, moisture may collect, prevent complete drying, and thus can compromise the integrity of the sterilization pouch.
13. Brushes or other devices utilized to clean instruments or burs should be heat sterilized after each use.
14. Use an internal or external chemical indicator with each sterilization packet or kit.
15. Do not over pack the sterilizer as this may impede penetration of the sterilant.
16. Always allow the heat sterilization process to proceed to completion. Never remove instruments for utilization during the sterilization phase.
17. If the sterilizer is opened during the drying phase to remove a needed instrument, remove that instrument only and then allow the process to proceed to completion.
18. Allow packages and instruments to dry after heat sterilizing.
 - a. Moist instrument packaging may allow for wicking of contaminants through the packaging and thus will not serve as an effective barrier.
19. Allow instruments to cool before handling.
20. Ensure the package or tape indicator has confirmed sterilization of each set or package.
21. Move sterile instruments from the sterilizer directly to their proper secure storage area.
22. Do not start the sterilization process unless it will be completed (including the drying phase) before the "end of shift" Tool Control verification.
23. The dental staff member who secures the sterilization room prior to closing the dental clinic is responsible to start the sterilizer.
24. The sterilization room should be cleaned at the end of each day.
 - a. This includes disinfecting the sink, counters, and autoclave.
 - b. The ultrasonic cleaner should be drained and disinfected.
 - c. The towel should be replaced at the end of each day.
25. Monitor the sterilizer at least weekly with a biological indicator with a matching control.
 - a. Send the processed indicator and control for testing as soon as possible.
 - b. On-site biological indicator sterilizer testing may be utilized, with the appropriate equipment and annual staff training.
26. If a spore test result is positive, immediately remove the sterilizer from service.
 - a. Review the sterilization process and re-test the sterilizer with biological, mechanical, and chemical indicators.
 - b. Re-sterilize all instruments that may have been sterilized since the previous negative (passing) test utilizing another sterilizer.
 - c. The sterilizer can be returned to service once all indicator results are negative.
 - d. If the sterilizer again produces a positive spore test, the sterilizer should be taken out of service and may need to be sent off for inspection and service.
27. Place all instruments and instrument sets in their proper secure and closed instrument storage area.

28. Re-package and re-sterilize any opened or compromised instrument sets or packets.
29. All instrument sets should be periodically re-sterilized if not used.
30. Dental staff should receive annual training in the sterilization process, sterilizer operation, safety, and prevention of contamination of clean areas.
31. Sterilization and sterilization monitoring records should be maintained.
32. The dental instruments and instrument sets should be date stamped every six months.
 - a. Any instrument or instrument set packages that are stamped from the previous six-month date stamp session should be re-packaged and re-stamped.
 - b. Instrument or instrument set packages should be date stamped if no date is evident on the package.
 - 1) This would indicate the package has been sterilized within the previous six months and therefore will be within the manufacturer's recommendation, even if not used until the next date stamp session.
 - c. All packages should be inspected during the date stamp session for tears or damage that could compromise the sterility of the instruments within them.
 - 1) If a lack of package integrity is suspected or confirmed, the instrument or instrument set should be repackaged, stamped, and sterilized.

D. Disinfection

1. Utilize only FDA-approved and EPA-registered hospital grade disinfectant materials or solutions.
 - a. The disinfectant should be germicidal, tuberculocidal, and viricidal (including influenza, Coronavirus, HBV, and HIV).
2. Follow manufacturer's instructions.
 - a. If the disinfectant solution requires mixing, follow mixing instructions precisely and dispose of the solution prior to the expiration date.
3. Do not use chemical sterilant and high-level disinfectants as environmental surface (clinical contact and/or housekeeping) disinfectants or instrument holding solutions.
4. It is recommended that the disinfectant spray and disinfectant wipes contain the same ingredients to prevent potential chemical incompatibility issues.
5. Wear appropriately sized gloves and personal protective equipment when disinfecting the clinical area.
6. Utilize surface barriers to protect clinical contact surfaces, especially those that are difficult to clean or which receive frequent contact during the procedures.
7. Always change surface barriers between patients.
8. Cleaned and disinfect:
 - a. all patient care items; and
 - b. clinical contact surfaces if not barrier protected.
9. Clean housekeeping surfaces (walls, floors, sinks, etc.) with detergent (or disinfectant / detergent) and water:
 - a. on a routine basis; and
 - b. when visibly soiled or contaminated.
10. Clean and dry mops and cloths after use on housekeeping surfaces or utilize single-use items.
11. Follow manufacturer directions and prepare fresh housecleaning solutions daily.

12. Clean blood (or other potentially infectious material) spills, then disinfect the area with an EPA-registered hospital disinfectant.
13. End-of-the-day disinfection should include:
 - a. the radiograph machine switches and controls;
 - b. phones, doorknobs, and light switches;
 - c. any other surface that would be commonly touched throughout the day; and
 - d. the clinic bathroom.
14. Carpet and cloth covered furnishings should be avoided in the clinical areas.
15. Dental staff should receive annual training in the disinfection process and safe utilization of disinfectant materials.

E. Medical Waste

1. All state and federal guidelines and MSP requirements must be followed concerning disposal and transportation of medical waste.
2. Only utilize red, properly labeled medical waste bags for non-sharps medical waste.
 - a. Ensure the medical waste bag is not leaking; if so, double-bag it.
3. Commercially produced red sharps containers should be utilized for all medical sharps, discarded burs, teeth, and tissue debris.
4. Pour all blood, suctioned fluids, and other liquid medical waste carefully into the drain and rinse the sink afterward.
 - a. Always wear personal protective equipment when disposing of liquid medical waste.
5. All dental staff who handle medical waste should receive annual training in proper handling and disposal of it.
6. Amalgam Separator devices are required for all dental operatories, where any restorative care is provided.
 - a. Follow manufacturer guidelines on maintenance and filter replacements.

F. Dental Unit / Waterlines

1. Use only distilled water for the dental clinic chair-side water system.
2. Place eight pumps of Microclear® Waterline Cleaner, or equivalent product, in the water bottles every time they are re-filled to aid in preventing biofilm build-up and maintain water line quality.
3. Discharge both air and water from the air/water syringe and handpieces for a minimum of 20 seconds after each patient.
4. Suction traps should be changed at least monthly, and the master suction trap should be changed every six months.
5. Waterline water quality should be monitored on a regular basis.

G. Dental Radiology

1. Place surface barriers on the radiograph collimator and any controls contacted while taking radiographs.
2. Wear gloves, mask, and glasses while taking radiographs.
3. Always follow manufacturer recommendations on infection control of the digital sensors.
 - a. Utilize and replace after each use, appropriate barrier materials for the digital radiograph sensors.

4. Utilize surface barriers for the Panograph machine and utilize disposable bite tabs when possible.
5. Care must be taken to ensure the digital equipment and computer do not become contaminated.
 - a. Always remove contaminated gloves before touching the computer or other non-barrier protected digital radiograph equipment.

H. Parenteral Medications

1. Only utilize single-use syringes when dispensing medications from a syringe.
2. Use single-use vials when possible and ensure no cross contamination when using multi-use vials.
 - a. Dispose of multi-use vials if sterility is compromised.

I. Biopsy Specimens

1. These should be placed in a sturdy, leak-proof container that is clearly labeled as medical waste.
2. If visibly contaminated on the outside of the container, clean and disinfect the container and place in a clear bag or medical-waste labeled bag.
 - a. Glass or plastic liquid specimen containers should be placed in a labeled and sealed package.
3. Take care to ensure the associated paperwork is not contaminated.

J. Dental Laboratory

1. The dental laboratory should follow the same infection control practices as the dental clinical areas, in order to protect lab personnel and prevent cross-contamination between patients.
2. Hands should be cleaned:
 - a. before and after handling each case;
 - b. after handling contaminated items;
 - c. after self-contamination of hands, and
 - d. before eating or handling food.
3. All heat-tolerant laboratory tools and instruments should be cleaned and heat-sterilized.
4. Laboratory burs, instrument kits, and rag wheels should be sterilized after each patient case.
5. Pumice mixes or slurries, as well as rag wheels or lathe attachments, should not be utilized for more than one patient case.
6. Protective mask (ventilator mask when necessary) and eyewear should be used when performing laboratory procedures.
7. Ear protection is encouraged when utilizing noise generating equipment.
8. To reduce potential injury from aerosols, dust, and particulates, safety shields and ventilation should be used when operating rotary equipment.
9. Gloves should be worn when handling contaminated items.
10. Each employee is responsible for maintaining and disinfecting the employee's work area, instrument and laboratory materials, and dental prosthetics.
 - a. The work area should be cleaned and disinfected, and items should be stored in the proper place after the work is completed.

11. Work cases, instruments, burs, wax and other items related to a given lab case should be confined, when possible, to a covered lab tray.
 - a. The disposable lab tray cover should be changed between cases.
12. Lab cases should be disinfected and sealed with mouth rinse prior to delivery.
13. End-of-Day Dental Laboratory Disinfection
 - a. Counter surfaces should be disinfected utilizing disinfectant spray and wipes in the same manner as the dental clinic counter surfaces.
 - b. Trash should be removed
 - c. The floor should be cleaned.
 - d. Sinks should be cleaned and disinfected. The sinks may require cleaning, as needed, several times per day.
 - e. Laboratory equipment, such as the lathes, model trimmer, lab vibrator, handpiece units, and light cure machine should be disinfected.
14. The pressure pot should be cleaned after every use and stored.
 - a. More than one prosthetic item (unless for the same patient) should be placed in a pressure pot for curing at the same time.
15. No oral impression, dental prosthesis, wax occlusal rims, oral appliances, or other potentially infectious materials should enter the dental laboratory until it is properly disinfected.
 - a. The ideal time to clean and disinfect impressions, oral appliances, and prostheses is as soon as possible after removal from the oral cavity before drying of blood and saliva.
16. Disinfecting Impressions, Wax Occlusal Rims, and Other Potentially Infectious Materials or Items
 - a. While in the clinic operator:
 - 1) rinse infected impression with running water and shake off excess water;
 - 2) place the rinsed impression into a zip-lock or sealable plastic bag;
 - 3) prior to sealing the plastic bag, spray all surfaces of the item with an EPA-registered hospital grade disinfectant; and
 - 4) place the sealed plastic bag on a disinfected and barrier-covered dental tray for transporting to the dental laboratory.
 - b. In the dental laboratory:
 - 1) the sealed plastic bag should be taken to the decontamination station and should not be placed anywhere else in the dental laboratory;
 - 2) the item should stay in the sealed plastic bag for the appropriate disinfection time;
 - 3) the impression is then rinsed with running water in the decontamination station sink and excess water should be removed; and
 - 4) the item is now ready to be moved to the workspace or model pouring station.
17. The decontamination (receiving) station should be considered a non-sterile area of the dental laboratory.
 - a. All items, instruments, or equipment placed in this area must be disinfected prior to transferring to another area of the dental laboratory or to the dental clinic.
18. For ultrasonic cleaning of oral prostheses, such as a denture, partial denture, or night guard:
 - a. rinse the oral prosthesis under running water to remove saliva and debris;
 - b. disinfect utilizing the same process (*see III.J.15, above*) for impressions and other potentially infectious materials or items;
 - c. place in a new zip-lock plastic bag with ultrasonic cleaner for 10 minutes;
 - d. rinse thoroughly under running water; and
 - e. seal in a clean zip-lock plastic bag with mouthwash or other mild non-toxic disinfectant for delivery to inmate.

19. For light curing of contaminated items such as a chair side reline or custom impression tray:
 - a. after removing the item from the inmate's mouth, the item is placed in a plastic bag (without contaminating the outside of the plastic bag) or placed in a second non-contaminated plastic bag;
 - b. the non-contaminated plastic bag is placed in the lab light cure machine for the appropriate time;
 - c. the bag can be removed and taken directly to the clinic area;
 - d. the light cured item can be disinfected utilizing the same process (*see III.J.15, above*) for impressions and other potentially infectious materials or items; then the item can be worked on in the lab work area; and
 - e. if it is suspected that the lab light cure machine could be contaminated, it should immediately be disinfected, inside and out.
20. Eating food in the laboratory is strongly discouraged.
 - a. Eating utensils should neither be cleaned in the dental laboratory sinks nor stored in the dental lab.

K. Annual Review

1. The infection control program should be evaluated annually.
2. Ensure all dental staff have participated in annual Infection Control and Bloodborne Pathogen training. Confirm all aspects of the infection control program have been reviewed.
3. Any violations of the infection control protocols should be brought to the attention of the dental staff member in charge of the Dental Infection Control Program or the MSP Dental Clinic Manager.
 - a. Continued violations can lead to disciplinary actions.
4. Any suggested improvements or recommended changes intended to improve the Infection Control program should be communicated to:
 - a. the staff member in charge of the Dental Infection Control Program; or
 - b. the MSP Dental Clinic Manager.
5. The MSP Infection Control Program may be consulted for further guidance.

IV. CLOSING

Questions about this procedure should be directed to the Medical Health Services Manager.

V. REFERENCES

- A. *NCCHC Standard P-E-06*
- B. *NCCHC Standards Appendix G*
- C. *DOC 1.3.35 Blood-Borne Pathogens Exposure Control Plan; DOC 4.5.26 Offender Dental Services*