3.3.3.1 Infection Control Procedures

(a) Policy

In the provision of dental care to patients, all California Department of Corrections and Rehabilitation (CDCR) dental staff shall adhere to the Centers for Disease Control and Prevention, Guidelines for Infection Control in Dental Health-Care Settings – 2003. MMWR 2003;52 No.RR-17, as well as the occupational safety and health standards established by the Occupational Safety and Health Administration (OSHA).

(b) Purpose

To promote a safe and healthy work environment in which dental services are provided to patients; minimize the possibility of the transmission of infection to patients or dental personnel by establishing procedures to ensure that patients and staff infected with communicable diseases receive prompt care and treatment; and provide guidelines for the completion and filing of all reports consistent with local, state and federal laws and regulations regarding infectious and communicable diseases.

(c) Discussion

(1) The infection control program consists of written policies, procedures and practices designed to prevent or reduce the risk of disease transmission and to effectively monitor the incidence of infectious and communicable diseases among patients and staff.

(2) A successful infection control program requires a collaborative effort among all stakeholders. The institution Quality Management Committee (QMC), Infection Control Committee (ICC) and Infection Control Nurse can be valuable assets in implementing and maintaining such a program.

(3) Standard precautions require that health care workers:

(A) Consider all patients as potentially infected with bloodborne pathogens.

(B) Follow infection control protocols to minimize the risk of exposure to blood and body fluids (secretions and excretions [except sweat], regardless of whether they contain blood) which come in contact with non-intact skin or mucous membranes.

(d) Procedure

(1) The Health Program Manager (HPM) III at each Correctional Facility shall ensure that:

(A) Requirements for the management of occupational exposures to bloodborne pathogens including post exposure prophylaxis for work exposures are followed.

(B) All clinical dental employees at their institution receive annual training on dental clinic and dental laboratory infection control procedures.

(C) Each new clinical dental department employee is provided training on infection control procedures prior to assignments involving direct or indirect patient care duties.

(D) Documentation of training provided to dental staff on infection control procedures includes the following information:

1. Date(s) of training.
2. Duration of training.
3. Contents of training.
4. Name(s) and signature(s) of person(s) conducting the training.
5. Names and signatures of all employees attending the training.

(E) Documentation of training on infection control procedures is maintained for a period of six years.

(2) The Supervising Dentist at each Correctional Facility shall:

(A) Monitor clinical procedures to ensure that dental staff adheres to dental clinic and dental laboratory infection control procedures.

(B) Ensure that each staff dentist is responsible for compliance with infection control procedures in their clinic.

(3) Program Support Team staff shall monitor the institution infection control program (QMC and/or ICC) at least every six months.

(4) Any unusual or accidental employee exposure to potentially infectious matter shall be reported to the HPM III and the institution's exposure control personnel or designee. The HPM III shall ensure that an incident report as well as all required Workers Compensation documents and any other required forms are completed and properly filed. The HPM III and exposure control personnel shall maintain a record of unusual or accidental exposures and any corrective action plans that result from such exposures.

(5) Infection Control Procedures In Dental Clinics

(A) Health History

1. A thorough health history shall be compiled for all patients. (Reference the Health Care Department Operations Manual [HCDOM], Section 3.3.6.1(c)(2)(E)).
2. Patients with a suspected undiagnosed infectious disease shall be referred to a physician for a follow-up medical evaluation. (Reference the HCDOM, Section 3.3.4.5(c)(5)).

(B) Personal Protective Equipment (PPE)

1. Protective clothing, gloves, masks, protective eyewear, head and shoe covers, as well as other PPE shall be made available for use by dental staff and shall be removed prior to leaving laboratories or patient care areas.
   a. Disposable masks, head, and shoe covers must be disposed of after each patient encounter.
   b. Disposable gowns are to be disposed of when visibly soiled or at the end of the work day.
2. Dental staff shall wear PPE for any surgical procedure, when decontaminating and disinfecting environmental surfaces and at all times when splashes, spray, spatter, aerosols, or droplets of blood, or other potentially infectious materials (OPIM) may be generated. In addition, dental personnel who clean instruments or other soiled items shall wear puncture and chemical resistant/heavy-duty utility gloves to minimize health risks. (Reference Section (d)(5)(H)3.b.).

(C) Minimizing Potentially Infectious Droplets, Spatters, and Aerosols

1. To achieve maximum reduction in hazardous aerosol production during treatment; rubber dams, high volume evacuation, and chairside dental assistance shall be made available to all providers.
2. At the provider's discretion, they may also have the patient rinse with an anti-microbial mouthwash prior to receiving treatment.

(D) Malfunction of High Volume Evacuation Equipment

Invasive dental procedures shall be suspended until malfunctioning high volume evacuation equipment is repaired.

(E) Latex Allergy

1. All patients shall be screened for latex allergy, (i.e., take a health history and refer for medical consultation when latex allergy is suspected). (Reference the HCDOM, Section 3.3.6.1(c)(2)(E) of this policy).
2. The HPM III shall ensure a latex-safe environment for staff and patients with latex allergies, and shall ensure that emergency treatment kits with latex-free products are available at all times. Patients with latex allergies should receive treatment at the beginning of the day (first patient of the day) to allow latex allergens to dissipate from the environment.

(F) Handling Sharp Instruments

1. The HPM III shall ensure that engineering controls and work practices are in place to prevent injuries when staff is handling sharp instruments.
2. Where engineering controls are not available, work-practice controls that result in safer behavior, (e.g., one-handed needle recapping or not using fingers for cheek retraction while using sharp instruments or suturing), shall be utilized.

(G) General Work Practice Requirements

1. Flush mucous membranes immediately, or as soon as feasible, when they are exposed, or potentially exposed, to blood or OPIM.
2. Eating, drinking, applying cosmetics and handling contact lenses are prohibited in occupational exposure areas (e.g., dental operatories, dental laboratories, sterilization areas).
3. Storing or placing food or beverages in refrigerators, cabinets, or on shelves or countertops where blood and/or OPIM are present shall not be permitted.
4. Dental staff who directly assist with or provide patient care shall:
   a. Employ appropriate hand hygiene techniques as outlined in the "Hand Hygiene" sections of the Centers for Disease Control and Prevention, Guidelines for Infection Control in Dental Health-Care Settings – 2003, as well as the Centers for Disease Control and Prevention, Summary of Infection Prevention Practices in Dental Settings: Basic Expectations for Safe Care, Atlanta, GA: US Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Oral Health; March 2016.

b. Maintain their fingernails short enough to allow thorough cleaning underneath them.
c. Refrain from having long artificial or natural nails.

(H) Sterilization Requirements

1. Items used for patient care (dental instruments, devices and equipment) are classified as critical, semicritical, or noncritical, depending on the possible risk for infection related to their intended use.
   a. Critical items are those objects or instruments that penetrate soft tissue or bone and have the greatest risk of transmitting infection. All critical patient care items shall be sterilized by heat after being cleaned.
   b. Semicritical items touch mucous membranes or non-intact skin during their use and have a lower risk of transmitting infection. The majority of semicritical items used in dentistry are heat-tolerant and shall also be sterilized by using heat. If a semicritical item is heat-sensitive, it should, at a minimum, be processed with high-level disinfection.
   c. Noncritical Items are objects or equipment that contact only intact skin. These include dental operating light handles, dental radiographic equipment, dental operatory computer hardware surfaces and peripherals, operating cart/unit hoses and surfaces, dental chair surfaces, counter tops, etc. For most noncritical items, cleaning, or if visibly soiled, cleaning followed by disinfection with an Environmental Protection Agency (EPA)-registered hospital disinfectant is acceptable. When the item is visibly contaminated with blood or OPIM, an EPA-registered hospital disinfectant with a tuberculocidal claim (i.e., Centers for Disease Control and Prevention intermediate-level disinfectant) should be used.
2. Instrument Processing Area
   a. A designated central instrument processing area shall be established in all dental clinics. The area shall be divided physically or, at a minimum, spatially, into distinct areas for:
      1) Receiving, cleaning and decontamination.
      2) Preparation and packaging.
      3) Sterilization.
      4) Storage.
   b. Contaminated instruments shall be transported to the instrument processing area in a secure, puncture resistant container with a locking lid, and a biohazard label affixed.
3. Cleaning Instruments or Other Items Prior to Sterilization
   a. Instruments or items used in the delivery of dental treatment shall be cleaned thoroughly to remove debris prior to sterilization.
   b. Hand scrubbing of instruments or items shall be avoided and automated cleaning equipment such as ultrasonic cleaners shall be used whenever possible. (Reference Section (d)(5)(B)2.). Ultrasonic cleaning units shall be tested according to manufacturer's recommendations or at least on a monthly basis to ensure proper functioning.
   c. If instruments are not able to be processed immediately after use, in order to keep biological matter from drying and adhering to instrument surfaces, the instruments shall be covered with and/or immersed in enzymatic presoaking detergent until placement in the ultrasonic cleaner.
4. Packaging Instruments or Other Items for Sterilization
   a. Critical and semicritical items shall be packaged prior to sterilization in a self or manual sealing pouch, or a sterilization wrap.
   b. The outside of the pouch or wrap shall be labeled with the sterilizer identification number, operator's initials and the date of sterilization. The contents shall be considered sterile indefinitely if the pouch is sealed appropriately and the integrity of the pouch or wrap is not compromised.
5. Sterilization of Instruments or Other Items
   a. All metal or heat-stable, reusable, critical and semicritical items including instruments attached to, but removable from, the dental unit air and water lines, such as ultrasonic scaler tips and components or parts of air/water syringes, etc., shall be cleaned and sterilized after each use.
   b. Items being sterilized shall be arranged in the chamber to allow free circulation of the sterilizing agent. Manufacturer's guidelines for loading the chamber shall be followed.
6. Instrument Storage
   a. Sterilized instruments and burs shall not be stored unwrapped.

b. Un-sterilized instruments or other items that require overnight storage shall be cleaned and prepackaged before storage in preparation for sterilization the next business day. These instruments shall be stored separately from sterilized instruments and items.
c. All instruments and other items shall be stored as outlined in the HCDOM, Section 3.3.3.2(c)(2).

7. Sterilizer Monitoring, Cleaning and Maintenance (including "back-up" sterilizers)
   a. Proper functioning of sterilizers shall be verified by the use of Mechanical, Chemical and Biological indicators.
      1) Mechanical Indicator – assessing the cycle time, temperature and pressure of sterilization equipment by observing the gauges or displays on the sterilizer.
      2) Chemical Indicator – sensitive chemicals used to assess physical conditions such as temperature during the sterilization process. These indicators can be internal (inside the sterilization pouch) or external (on the outside of the sterilization pouch).
      3) Biological Indicator (BI) – used to determine whether resistant microorganisms (e.g., Geobacillus or Bacillus species) were successfully inactivated. These indicators are also referred to as spore testing.
   b. All sterilizers shall be identified by an identification number (e.g., an arbitrary number or the serial number) to facilitate documentation of spore test results and to aid in tracking instruments or items that need to be re-sterilized in the event a sterilizer has a positive spore test result.
   c. All sterilizers shall be monitored at least once a week using a BI with a matching control, (i.e., one BI that is run through a sterilization cycle and one control BI from the same lot number that is not sterilized). The spore tests shall be sent to a commercial monitoring service for verification and documentation of the proper operation of each sterilizer.
      1) Dental staff may continue to use a sterilizer as long as the spore test results are "negative for growth."
      2) If the spore test comes back "positive for growth" the following procedures shall be followed:
         a) The sterilizer shall be removed from service and sterilization procedures reviewed, (i.e., work practices and use of mechanical and chemical indicators), to determine whether operator error could be responsible.
         b) After any identified procedural problems have been corrected, the sterilizer shall be retested using the same type of sterilization cycle that produced the positive BI. Biological, mechanical, and chemical indicators shall be used during this sterilization cycle.
         c) If the repeat spore test is negative, and mechanical and chemical indicators are within normal limits, the sterilizer may be returned to service.
         d) If the repeat spore test is positive:
            i. The sterilizer shall not be used until it has been inspected or repaired, and the reason for the positive test has been determined and corrected.
            ii. To the extent possible, all items from suspect loads dating back to the last negative BI test should be recalled, re-wrapped, and re-sterilized.
            iii. The possibility that the improperly sterilized instruments may have contaminated the outer surface of the previously sterilized instrument's sterilization pouch must be taken into consideration and appropriate preventive measures taken.
            iv. The sterilizer shall be retested with BI tests in three consecutive empty chamber sterilization cycles and may be returned to service if all three tests are negative.
   d. The Supervising Dentist Assistants shall review all BI test results upon receiving them and shall maintain the monitoring records of all sterilizers for a period of three years.
   e. Dental staff shall follow the manufacturer's recommendations for cleaning and maintenance of sterilizers.

(I) Sterile Water Use
1. As mandated by the Dental Board of California in the Dental Practice Act, sterile water shall be used in all CDCR dental clinics for invasive oral surgical procedures.
2. In the absence of commercially available devices that bypass the dental unit to deliver sterile water, delivery devices (e.g., bulb syringe or sterile, single-use disposable products) shall be used to deliver sterile water.

3. Sterile water shall be procured from a vendor and kept in the dental clinic storage area for ease of availability.

(J) Flushing Water Lines

1. Dental unit lines shall be purged with air or flushed with water for at least two minutes at the beginning of the day before connecting the sterilized handpiece or other devices to the dental unit, and at the end of each work shift.
2. Dental unit lines shall be purged with air or flushed with water for a minimum of 20-30 seconds between each patient treated.
3. Dental staff shall follow the manufacturer's recommendations for cleaning, disinfecting, and testing dental unit water lines.

(K) Disposal of Regulated Medical Waste

1. Examples of regulated medical waste found in dental-practice settings are solid waste soaked or saturated with blood or saliva (e.g., gauze saturated with blood after surgery), extracted teeth, surgically removed hard and soft tissues, and contaminated sharp items (e.g., needles, scalpel blades, burs, root canal files and wires).
2. Contaminated sharp items shall be placed intact into a leak proof, puncture-resistant, red or labeled sharps container prior to disposal.
3. The container shall be located as close as feasible to the area in which the disposable item is used.
4. Sharps containers shall be easily accessible to staff, mounted securely, maintained upright so the contents are not easily accessible to patients, and not allowed to overfill. The lid shall be closed when the container is 3/4 full and dental staff shall request disposal by the institution's Hazardous Materials (HazMat) Specialist.
5. Extracted teeth (including crowns), surgically removed hard and soft tissues, and solid waste soaked or saturated with blood or saliva, shall be placed into a biohazard waste container that is visibly labeled and lined with a red biohazard bag.
6. Blood, suctioned fluids, or other liquid waste may be carefully poured into a drain connected to a sanitary sewer closed system.

(L) Dental Vacuum System Cleaning, Disinfection and Maintenance

Dental staff shall follow the manufacturer's recommendations for cleaning, disinfection and maintenance of vacuum systems and amalgam collector/separator systems.

(M) Mycobacterium tuberculosis (TB)

1. All dental staff shall receive annual training and testing regarding the recognition of signs, symptoms, and transmission of TB.
2. Dentists shall interview patients to check for a history of TB as well as symptoms indicative of TB as outlined in the HCDOM, Section 3.3.6.1(c)(2)(E) and document their findings as outlined in the HCDOM, Section 3.3.6.1(c)(1)(F) through (H).

(6) Infection Control Procedures In Dental Laboratories

(A) Infection control can be accomplished most efficiently in the dental laboratory by:

1. Disinfecting all material coming into and going out of the laboratory.
2. Using mechanical barriers that inhibit passage of infectious diseases between the dental clinic and the dental laboratory or vice versa.

(B) Dental personnel or dental technician trainees performing disinfection procedures or handling incoming or outgoing cases shall wear PPE as outlined in Section (d)(5)(B).

(C) All casts and intraoral items such as impressions, bite registrations and prosthetic appliances sent from dental clinics to a dental laboratory or vice versa shall be enclosed in sealed plastic bags or plastic wrap, (e.g., Saran Wrap), to avoid contamination of packing materials.

(D) Cleaning, Disinfecting and Sterilizing Items in Dental Laboratories:

1. Laboratory personnel shall transfer incoming casts, prostheses, impression trays, jaw relation records and all other submitted materials to a disinfection area, such as a sink with an overlying drain board, before they are placed in laboratory case pans.

2. All surfaces of submitted materials shall be sprayed with an EPA-registered hospital disinfectant with a tuberculocidal claim (i.e., Centers for Disease Control and Prevention intermediate-level disinfectant capabilities).
3. The solution shall be permitted to remain on the materials in accordance with the manufacturer's instructions before rinsing with water.
4. The submitted materials shall be placed on the drain board with the prosthesis or cast standing on end so that the disinfectant will not pool in the palatal and lingual areas.
5. Casts, prosthetic appliances (after being removed from the cast), non-metal impression trays, jaw relation records and other materials leaving the laboratory for the dental clinics shall be disinfected prior to being returned to the dental clinics.
6. Heat-tolerant items used in the mouth, (i.e., metal impression trays, face-bow forks), shall be cleaned and heat-sterilized prior to being returned to the dental clinics.
7. Manufacturer's instructions shall be followed for cleaning, sterilizing, or disinfecting items used in dental laboratories that become contaminated but do not normally contact the patient, (i.e., lab burs, polishing points, rag wheels, articulators, case pans, and lathes).
8. If the manufacturer's instructions are unavailable, items shall be cleaned and heat sterilized (if heat-tolerant) and/or cleaned and soaked overnight in an EPA-registered hospital disinfectant with a tuberculocidal claim (i.e., Centers for Disease Control and Prevention intermediate-level disinfectant capabilities).
9. When returning laboratory cases to the dental clinics, Dental laboratory technicians shall include specific information regarding disinfection techniques used, (i.e., solution used and duration).

(E) Shipping and Receiving Benches

1. Shipping and receiving benches shall be cleaned and disinfected daily with an EPA-registered hospital disinfectant with a tuberculocidal claim (i.e., Centers for Disease Control and Prevention intermediate-level disinfectant capabilities).
2. Dental laboratory staff shall follow manufacturer's instructions when utilizing disinfectant products.
3. Identical procedures shall be used to disinfect laboratory case pans.

(F) Mechanical Barriers on Laboratory Equipment

1. Splash shields and equipment guards shall be used on all dental laboratory lathes.
2. Pumice pans that are used for polishing prostheses immediately following clinical adjustment shall have disposable plastic liners (saran wrap or polyethylene tray covers).
3. Disposable plastic liners, rag wheels, and pumice used on all dental laboratory lathes shall be changed after each patient.

References

- Centers for Disease Control and Prevention, Guidelines for Infection Control in Dental Health-Care Settings – 2003. MMWR 2003;52 No.RR-17
- Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Oral Health; March 2016
- Centers for Disease Control and Prevention, Summary of Infection Prevention Practices in Dental Settings: Basic Expectations for Safe Care, Atlanta, GA: US Department of Health and Human Services
- Health Care Department Operations Manual, Chapter 3, Article 3, Section 3.3.3.2, Control of Dental Instruments and Sharps
- Health Care Department Operations Manual, Chapter 3, Article 3, Section 3.3.4.5, Dental Authorization Review Committee
- Health Care Department Operations Manual, Chapter 3, Article 3, Section 3.3.6.1, Health Records Organization and Maintenance

Revision History

Effective: 04/2006
Revision: 11/2017, 11/2020, 02/2022