


Infection Control Manual		
	Policy Name	Dentistry
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	Responsible for Content	Hospital Epidemiology

I. Description

Describes the infection control guidelines followed by Dentistry.

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II. Rationale

Dental procedures frequently involve manipulation and incision of the oral mucosa that increases the risk of infection. In addition, dental clinicians manipulate sharp instruments and perform aerosol-generating procedures that can result in exposure to potentially infectious body fluids. Strict adherence to infection control guidelines is essential to prevent the transmission of infectious agents in the dental setting.

III. Policy

A. Infection Control Practices

1. Personnel

- a. Personnel will adhere to guidelines established by the Occupational Health Service (see Infection Control Policy: "Infection Control and Screening Program – OHS"). Students will comply with Campus Health Services (CHS) guidelines.
- b. Personnel and students are responsible for following all applicable Infection Control policies:
 - i. "Exposure Control Plan for Bloodborne Pathogens"
 - ii. "Cleaning, Disinfection, and Sterilization"
 - iii. "Infection Control Guidelines for Perioperative Services"
 - iv. "Ambulatory Care Clinical Services"

2. Hand Hygiene

Perform hand hygiene according to the Hand Hygiene and Use of Antiseptics for Skin Preparation policy.

3. Handling of Sharp Instruments and Needles

Needles, scalpel blades, and other sharp instruments should be handled according to the Exposure Control Plan for Bloodborne Pathogens.

4. Personal Protective Equipment (PPE)

During general dental and oral surgical procedures, gloves, mask, eye shields, and a fluid-resistant gown are worn. Likewise, these garments must be removed before personnel exit areas of the Dental Clinic used for laboratory or patient care activities.

- a. Wear nitrile gloves when the potential exists for contacting blood, saliva, other potentially infectious material, mucous membranes, or potentially contaminated equipment.
 - i. Gloves must be worn when examining extra-oral or intra-oral tissues or providing any dental treatment procedures.
 - ii. Gloves must be removed and discarded, hand hygiene performed and new gloves donned between each patient examination and/or treatment.
 - iii. Remove gloves that are torn, cut, or punctured as soon as feasible and perform hand hygiene before donning new gloves.
 - iv. Wear gloves when exposing radiographs and handling contaminated film packets.
- b. Sterile gloves must be worn for surgical procedures (e.g. biopsy, periodontal surgery, apical surgery, implant surgery and surgical extraction of teeth).
- c. Surgical masks and protective eyewear, or plastic face shields with masks must be worn when splashing or splattering of blood or other potentially infectious fluids is likely. Masks should be changed when visibly soiled or wet. Face shields and protective eyewear should be disinfected or disposed of in accordance with manufacturer instructions.
- d. Reusable or disposable fluid resistant gowns must be worn when clothing is likely to be soiled with blood or other body fluids. PPE should be changed when visibly soiled or penetrated by blood or other potentially infectious fluids.

5. Standard and Isolation Precautions

Refer to the Infection Control Policy: IC 0031 Isolation Precautions and the Infection Control Policy: IC 0002 Ambulatory Care Clinical Services for updated recommendations including the addition of respiratory hygiene/cough etiquette, safe injection practices, and specific guidelines in caring for patients on isolation.

B. Sterilization of Patient-Care Items

1. Individuals responsible for cleaning, disinfecting, and sterilizing instruments and equipment must be knowledgeable and follow guidelines provided in the Infection Control Policy: IC 0008 Cleaning, Disinfection, and Sterilization, Infection Control Policy: IC 0021 Exposure Control Plan for Bloodborne Pathogens, as well as this dentistry-specific policy. Staff performing these duties should be competency tested initially on employment and annually thereafter.
2. **Surgical and other instruments that normally penetrate soft tissue and/or bone** (e.g., forceps, scalpels, bone chisels, scalers, and surgical burs) are sterilized after each use. **Non-surgical instruments** (e.g. metal impression tray or face bow fork) that come into

contact with oral tissues should also be sterilized after each use. If sterilization is not possible, disposable instruments are to be used.

3. Sterilizers will be cleaned according to the sterilizer manufacturer's instructions for use. A record of the date and time of sterilizer cleaning should be kept, including name of individual who performs the cleaning. Sterilizers will be managed according to the Infection Control Policy: IC 0008 Cleaning, Disinfection and Sterilization.
4. All high-speed dental handpieces, low-speed handpiece components used internally, and reusable prophylaxis angles are heat sterilized after each patient use.
 - a. Handpieces are routinely sterilized between patients.
 - b. Ultrasonic scaler tips are sterilized. Hoses are disinfected and flushed with tap water before and after use with each patient.
 - c. Manufacturers' recommendations should be followed for use/maintenance of waterlines and check valves and for flushing of handpieces.
 - d. Air/water syringes should contain removable metal tips that are heat sterilized for each patient or disposable plastic tips.
 - e. After each patient use, any dental device connected to the dental air/water system that enters a patient's mouth must be flushed with water by running it for 20-30 seconds, discharging the water into a sink or container. The handpieces are removed and wash water lines allowed to discharge water for several minutes at the beginning of each clinic day.
5. Air/water syringes and ultrasonic scaler units should be flushed as described above for handpieces. These attachments should be sterilized in the same manner as the handpieces, or in accordance with manufacturers' instructions. Removable or disposable tips should be used for one patient.
6. Sterile lab materials and other items that have been used in the mouth (e.g., impressions, bite registrations, fixed and removable prostheses, orthodontic appliances) are disinfected prior to manipulation in the laboratory. All reusable items or appliances are sterilized before reuse or disposed of if they are not reprocessed.
7. Packaged sterile items must be stored no higher than 24 inches from the ceiling and at least 8 inches from floor. The only exception is perimeter shelving in facilities with sprinklers; shelving attached to walls is allowed to extend past the 24" plane as long as the sprinkler head is not directly above the shelving.
8. Reporting
 - a. In the event of an oral surgical site infection in the outpatient setting, contact Hospital Epidemiology at 984-974-7500. Report the patient's name, medical record number, and date of surgery.

C. Disinfection of Patient-Care Items

1. Countertops and dental equipment surfaces such as light handles, x-ray unit heads, amalgamators, cabinet and drawer pulls, tray tables, and chair switches are likely to become contaminated with potentially infectious materials during treatment procedures.
 - a. Surface barriers are used to protect clinical contact surfaces, especially those that are difficult to clean (e.g., switches on dental chairs, computer equipment, connections to hoses, etc.) and these barriers are changed between patients.
 - b. Ensure clinical contact surfaces and/or noncritical patient-care items/equipment, even if covered with a protective barrier, are cleaned and disinfected after each use or when

- visibly soiled with an EPA-registered, hospital-grade disinfectant (e.g., Sani-Cloth®, MetriGuard™).
- c. Surfaces can be covered with plastic wrap or impervious-backed absorbent paper. These protective coverings should be changed between patients and when contaminated.
 - d. High-level disinfectants (e.g., glutaraldehyde) should not be used as an environmental surface disinfectant or as instrument/equipment holding solutions.
 - e. Extracted teeth used for education should be considered infectious and should be handled with the same standard precautions as specimens for biopsy. Before extracted teeth are manipulated in dental educational exercises, the teeth should first be cleaned of adherent patient material by scrubbing with soap and water or by using an ultrasonic cleaner. Teeth should then be stored immersed in a fresh solution of 1:10 bleach and water or any liquid chemical germicide suitable for clinical specimen fixation.
 - f. Items designed for single patient use only may not be used on another patient.
2. Housekeeping surfaces, including floors, sinks and related objects should be cleaned routinely by Environmental Services consistent with the Infection Control Policy: IC 0020 Environmental Services.
 3. Impressions, prostheses, casts, wax rims/bites, jaw relation records, removable dentures and partials, and devices that have been in the patient's mouth should be properly disinfected prior to shipment to a dental laboratory.
 - a. Disinfected impressions that are sent to the dental laboratory should be labeled as such in order to prevent duplication of the disinfection protocol.
 - b. Use a quaternary ammonium compound (i.e., MetriGuard™) for these items.
 - c. Follow the manufacturer's recommendations for disinfectant use and immersion times.
 4. Impressions must be rinsed to remove saliva, blood, and debris and then disinfected. Impressions can be disinfected by immersion in any compatible disinfecting product. Since the compatibility of an impression material with a disinfectant varies, manufacturers' recommendations for proper disinfection should be followed. The use of disinfectants requiring times of no less than one minute and no more than 30 minutes for disinfection is recommended.

D. General Operating Procedures

1. Three principal means of limiting contamination by droplets and splatter are the use of high-volume evacuation, proper patient positioning, and rubber dams.
2. Dental personnel should limit contamination of hands by light switches, chair controls, or cabinets during patient treatment procedures. A second pair of disposable gloves or a sheet of plastic wrap may be used rather than gloves when it is necessary to prevent contamination of these objects. These items should be disinfected with an EPA-registered disinfectant if they become contaminated.
3. Sterile saline or sterile water are to be used as a coolant/irrigator when surgical procedures involving the cutting of bone are performed. These irrigation solutions are single patient use.
4. Anti-retraction valves are to be used on dental unit water lines to prevent fluid aspiration of patient material back into the handpiece and water lines.
5. Cleaning and disinfection of dental equipment, including but not limited to water lines, is performed in accordance with manufacturer instructions.

E. Digital Radiography

1. Food and Drug Administration (FDA)-cleared barriers are used to cover sensors (e.g. intraoral sensors or photostimulable phosphor (PSP) plates) and barriers are changed between patients. After the surface barrier is removed and discarded, the sensor/plate is ideally cleaned and heat sterilized or high-level disinfected according to the manufacturer's instructions. If the item cannot tolerate these procedures, then at a minimum, the sensor is cleaned and disinfected with an intermediate-level, EPA-registered hospital disinfectant. Follow all manufacturer instructions.
2. Barriers should be removed and disposed of carefully to avoid contamination of the sensor and/or other equipment/supplies.
3. Protective coverings or disinfectants should be used to prevent microbial contamination of position-indicating devices in accordance with manufacturer instructions.
4. Intraorally contaminated sensors and/or devices should be handled in a manner to prevent cross-contamination. Contaminated items should be handled using disposable gloves. The sensor/device should be dropped out of the barrier protection without touching the sensor/device. The contaminated packets should be accumulated in a disposable towel. After contaminated items are discarded, gloves are removed and hands washed. The digital films can then be processed without contaminating darkroom equipment with microorganisms from the patient.

F. Disposal of Waste Materials

1. Wearing appropriate PPE, disposable materials such as gloves, masks, wipes, paper drapes and surface covers that are contaminated with body fluids should be discarded in a regular trash bag (i.e., white plastic bag with biohazard label).
2. Blood, disinfectants, and sterilants may be carefully poured into a drain connected to a sanitary sewer system, not a hand washing sink. Care should be taken to ensure compliance with applicable local regulations.
3. It is recommended that drains be flushed or purged each night to reduce bacteria accumulation and growth.
4. Sharp items, such as needles and scalpel blades, should be placed in puncture-resistant containers marked with a biohazard label.
5. Regulated medical waste (e.g., sharps, tissues, and teeth for example) should be disposed of according to the Infection Control Policy: IC 0054 Guidelines for Disposal of Regulated Medical Waste.
6. All linens are to be placed in a fluid-resistant linen bag before being sent to the laundry.
7. Suction traps are disposable and are cleaned in each room after each patient. The main trap is cleaned weekly.
8. Blood spills or saliva contamination should be cleaned up immediately with a 1:10 dilution of sodium hypochlorite (household bleach) or an EPA-registered germicidal disinfectant.
9. After each patient, the entire dental area should be cleaned following routine housekeeping procedures. All equipment used, including the dental chair, should be cleaned with an EPA-registered disinfectant (e.g., Super San-Cloths). Computer screens and keyboards should be cleaned using alcohol and an EPA-registered disinfectant, respectively.
10. A waterline maintenance tablet (e.g., Blu Tab) is added to the water bottle each time the bottle is refilled. Sterile water is used.

G. Continuing Education

1. All employees will be instructed by the supervisor in aseptic techniques and will have the personal responsibility for maintaining aseptic technique.
2. Infection control education, including OSHA Bloodborne Pathogens and Tuberculosis training, will be completed by staff annually via the Learning Management System (LMS).

H. Implementation

Implementation of this policy will be the responsibility of the Dental Clinic Infection Control Coordinator and the Clinic Director.

IV. References

Centers for Disease Control and Prevention (CDC). *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.
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V. Reviewed/Approved by

Hospital Infection Control Committee

VI. Original Policy Date and Revisions

Revised on June 2004, Feb 2006, Jan 2009, Feb 2012, Feb 2015, Feb 2018