TAFT COLLEGE



EXPOSURE CONTROL

STANDARD OPERATING PROCEDURES

2019

Purpose

Minimize potential occupational exposures to infectious microorganisms. Content complies with the requirements of the Cal-OSHA Bloodborne Pathogens Standard (CCR 8, GISO 5193) and includes elements of the Dental Board of California's Infection Control regulation (Section 1005, Title 16, California Code of Regulations), which is included in Appendix 1.

A copy of this program will be made available, upon request, to personnel and their representatives.

The Exposure Control Plan (ECP) is key to implementing and ensuring compliance with the regulation, thereby protecting staff, students, and patients. The ECP includes:

- o Determination of employee exposure
 - Standard precautions
 - Engineering and work practices
 - Hand hygiene
 - Personal protective equipment
 - Housekeeping
 - Laundry
 - Dental-unit waterlines, and water quality
- Hepatitis B vaccination
- Post-exposure evaluation and follow-up
- o Procedures for evaluating circumstances surrounding exposure incidents
- o Provisions for initial reporting of exposure incident
- Procedures for completing the Sharps injury log
- Communication of hazards to employees
- Personnel training
- Monitoring medical records
- Appendix 1: Training document
- Appendix 2: Dental Board of California Infection Control Regulations
- Appendix 3: Sharps Injury Log
- Appendix 4: Informed refusal for hepatitis B vaccination-confidential
- Appendix 5: Protocol for triage of suspected active tuberculosis patient

Program Administration

Under the direction of the Dental Hygiene Program Director, the Infection Control Coordinator is responsible for implementation of the ECP.

Employees who are determined to have occupational exposure to blood or other potentially infectious materials (OPIM) must comply with the procedures and work practices outlined in the ECP; The plan is reviewed annually.

The infection control coordinator will be responsible for the following:

- A. Monitoring inventory of necessary personal protective equipment (PPE), engineering controls (e.g., sharps containers), labels, and hazardous waste as required by state and federal regulations.
- B. Ensuring that all medical actions required by regulations are met and that appropriate employee health and OSHA records are maintained by the program technician.
- C. Training of new employees assigned to clinical courses and documentation of training.

Determination of Exposure

The following is a list of all job/student duty classifications in the Dental Hygiene Program, in which employees and students have exposure to blood borne pathogens (BBP) or other potentially infectious material (OPIM).

Exposure to BBP / OPIM

- Clinical Faculty/students
- Dental Laboratory Faculty/students
- Dental Assistant
- Radiology Technician/faculty and students
- Central Sterilization Assistant (staff/students)

Job classifications with no exposure

- Program Technician/Secretary
- Program Administrative Assistant

Tasks and procedures with occupational exposure include yet may not be limited to:

- 1. Extraoral and intraoral examinations
- 2. Prophylaxes, scaling and root planing
- 3. Coronal polishing and tooth sealant applications
- 4. Interim therapeutic restoration applications
- 5. Radiographic procedures
- 6. Packaging and sterilizing instruments

- 7. Transporting contaminated instruments
- 8. Cleaning/Disinfection of operatory and clinic spaces
- 9. Handling or disposing of contaminated waste

ENGINEERING AND WORK PRACTICE CONTROLS

Engineering and work practice controls used to prevent or minimize exposure to bloodborne pathogens:

- Heat (steam under pressure) sterilizers
- Chemical disinfectants
- Iinstrument washers
- Sharps disposal containers
- Ultrasonic cleaners
- High-volume evacuation systems
- Needle recapping devices

GENERAL PROCEDURES

Ш	identify, evaluate, and select devices with safety features
	Place used disposable syringes and needles, scalpel blades, and other sharp items in
	appropriate puncture-resistant containers located close to the area in which the items are
	used.
	Do not bend, break, or remove needles before disposal.
	Use either a one-handed scoop technique or a mechanical device designed for
	holding the needle cap when recapping needles.
	Inspect, maintain, and replace sharps disposal containers
	Transport instruments to the central sterilization room in closed- lockable
	containers.
	Wash hands after removing gloves.
	Clean and decontaminate equipment according to manufacturer's specifications
	Perform all procedures involving blood or OPIM in such a manner as to minimize
	splashing, spraying, spattering, and generation of droplets

EVALUATION OF CONTROLS AND WORK PRACTICES

- The dental hygiene facility identifies the need for changes in controls and work practices through review of OSHA materials and other established regulations.
- Evaluation of new procedures and products when attending infection control seminars, literature reviews, and reviewing supplier information.
- Faculty, staff, and students

Standard Precautions and Infection Control Procedures

The Dental Hygiene Program utilizes "standard precautions" as one approach to infection control. The program also complies with Dental Board of California infection control regulations (see Appendix 3), some of which overlap and are more stringent than Cal/OSHA requirements.

A. Hand Hygiene

Perform hand hygiene with either a non-antimicrobial or antimicrobial soap or water when hands are visibly dirty or contaminated with blood or other potentially infectious material. If hands are not visibly soiled, an alcohol- based hand rub may be used.

Indications for hand hygiene include:

- Visibly soiled hands,
- Following barehanded touching of inanimate objects likely to be contaminated by blood, saliva, or respiratory secretions
- Before and after treating each patient,
- Before donning gloves and immediately after removing gloves

Store liquid hand-care products in either disposable closed containers or cleanable closed containers. Do not add soap or lotion to (i.e., top off) a partially empty dispenser.

B. Personal Protective Equipment

The Dental Hygiene Program provides training in the use of appropriate PPE for specific tasks or procedures. PPE is located in the Dental Hygiene Clinic and obtainable through the clinic administrator.

PPE is considered appropriate only if it does *not* permit blood or OPIM to pass through to or reach the employee's clothes, undergarments, skin, eyes, mouth, or other mucous membranes.

- All teaching faculty, staff, and students at risk must routinely wear appropriate attire to prevent anticipated skin/clothing exposure when contacted with blood or saliva.
- Clinical attire must not be worn outside the immediate clinic area.
 - The clinic area includes all dental hygiene treatment spaces, clinic storage areas, central sterilization center, radiographic cubicles, prosthetic laboratory, and the associated service corridors. It does not include the reception area, waiting room, restrooms, offices, classrooms, or dining areas.

Appropriate PPE includes (but is not limited to):

a. **Surgical mask:** covers both mouth and nose and protects against microorganisms generated by the wearer and the dental health care worker (DHCW) from splatter and aerosol. The mask should be changed if wet or visibly soiled and between patients. The Taft College Dental Hygiene Clinic has no facility or NIOSH-certified masks for treating active tuberculosis patients. For suspected TB patient protocol see Appendix 5.

- b. **Protective eyewear with side-shields:** worn by DHCP for all clinical procedures. The patient must also wear protective eyewear to protect their eyes from debris. Eyewear must be cleaned and disinfected between patients.
- c. **Long-sleeve disposable gowns:** worn for all clinical procedures. Gowns should be changed as soon as possible if torn or visibly soiled and between patients. Gowns should be removed before leaving treatment areas and under no circumstances can be worn into waiting areas, lounges or between buildings. Cuff must cover the wrist.
- d. **Single use, powder free gloves:** worn for all clinical procedures. Hands should be washed before putting on and after removing gloves.
- e. **Central Sterilization Room** (CSR) personnel will use **nitrile utility gloves** when cleaning and disinfecting contaminated instruments.
- f. **Operatory:** Personnel will also wear nitrile gloves when cleaning surfaces and items with disinfectant solutions as latex gloves do not adequately protect the user.
- Non-latex gloves (nitrile and vinyl) are available for providers or patients with latex allergy or sensitivity.

All personnel using PPE must observe the following precautions:

- g. Wash hands immediately, or as soon as feasible, after removing gloves or other PPE.
- h. Remove PPE after it becomes contaminated and before leaving the work area.
- i. Dispose of used PPE in regular solid waste container or biohazard labeled laundry bin, both with closeable tight-fitting lids
- j. Wear appropriate gloves for protection against hand contact with blood or OPIM, and when handling or touching contaminated items or surfaces. Replace gloves if torn, punctured, or contaminated, or if integrity is compromised.
- k. Decontaminate utility gloves for reuse but discard utility gloves if they show signs of cracking, peeling, tearing, puncturing, or deterioration.
- 1. Do not wash or decontaminate disposable gloves for reuse.
- m. Wear appropriate face and eye protection when splashes, sprays, splatters, or droplets of blood or OPIM pose a hazard to the eye, nose, or mouth.

C. Housekeeping Procedures

Place regulated waste in containers, which are closable, constructed to contain all contents and prevent leakage, appropriately labeled or color-coded (see the following section "Labels"), and closed prior to removal to prevent spillage or protrusion of contents during handling.
Clean and decontaminate bins and pails (e.g., wash or emesis basins) as soon as feasible after visible contamination.
Pick up broken, possibly contaminated glassware using mechanical means, such as a brush and dustpan.
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- ☐ Follow the subsequent procedures for handling sharps disposal:
 - Discard contaminated sharps immediately, or as soon as possible, in containers that are closable, puncture-resistant, leak-proof on sides and bottoms, and appropriately labeled or color-coded.
 - Use sharps disposal containers that are as close as feasible to the immediate area when using sharps.

Follow the subsequent procedures for handling anesthetic cartridge (CDA, 2012):

- If empty, place in the regular trash bin.
- If anesthetic still present, place in biohazard pharmaceutical waste bin.
- If blood present, place in a sharps container.

D. Laundry

The following contaminated articles will be laundered at the dental hygiene program's laundry facility.

- Clinic towels
- Plastic bibs used for ultrasonic procedures
- Patient blankets after used in clinic during treatment procedures

Each of the above items must be laundered separately. Plastic bibs are removed from the washer and hung to dry in the laundry room.

NO personal laundry can be done on campus.

- b. Trained staff and student workers will perform laundering duties and will adhere to the following requirements:
- c. Handle contaminated laundry as little as possible, with minimal agitation.

TRANSPORTING potentially contaminated laundry: Place wet contaminated laundry in leak-proof container.

Wear full PPE when handling and sorting potentially contaminated laundry. Disposable gowns are placed in the laundry room for this purpose.

Facility Surfaces

a. Clean clinic surfaces (e.g., floors, walls, and sinks) with a detergent and water or an EPA-registered hospital disinfectant/detergent on a routine basis. Selection of the disinfectant will depend on the nature of the surface and type and degree of contamination, and as appropriate, based on location in the facility, and when visibly soiled.

TC facilities department will:

- Clean mops and cloths after use and allow drying before reuse or use single-use, disposable mop heads or cloths.
- Clean walls, blinds, and window curtains in patient-care areas when they are visibly dusty or soiled.

E. Dental Waterlines, Biofilm, and Water Quality

The Dental Hygiene Program treats and tests all water unit lines prior to the start of each semester. Lines are shocked then tested using the Millipore product. The TC Biology department provides one incubator, and test paddles are incubated for 24 hours after which they are read for results. All results are logged and kept on file in the dental hygiene clinic.

Any water line that fails to pass the test, is taken off line, shocked and retested. The line is only used after a passing water test.

- A. Use water that meets EPA regulatory standards for drinking water (i.e., ≤500 CFU/mL of heterotrophic water bacteria) for routine dental treatment output water.
- B. Consult with the dental unit manufacturer for appropriate methods and equipment to maintain the recommended quality of dental water.
- C. Discharge water and air for a minimum of 2 minutes at the start of each clinic session, then 20--30 seconds after each patient, from any device connected to the dental water system that enters the patient's mouth (e.g., handpieces, ultrasonic scalers, and air/water syringes).
- D. Consult with the dental unit manufacturer on the need for periodic maintenance of antiretraction mechanisms.
- E. Maintain a log of water line test results in the dental clinic.

Dental Handpieces and Other Devices Attached to Air and Waterlines

All ultrasonic equipment purchased by students, must be shocked and water tested prior to use.

- A. Clean and heat-sterilize removable handpieces and other intraoral instruments between patients.
- B. Follow the manufacturer's instructions for cleaning, lubricating, and sterilizing removable handpieces and other intraoral instruments.
- C. Do not surface-disinfect, or use liquid chemical sterilants or ethylene oxide on removable handpieces and other intraoral.
- D. Do not advise patients to close their lips tightly around the tip of the saliva ejector to evacuate oral fluids.

F. Hepatitis B Vaccinations for Potentially Exposed Personnel

The HBV vaccine is an effective preventative measure recommended by the CDC and required by the Dental Board of California and Cal-OSHA regulations. All faculty, staff, and students, likely to be exposed to infectious fluids, are instructed about the hazards of contracting Hepatitis B and are advised to have the Hepatitis B vaccination.

The vaccine is not required if the DHCW or student tests positive for HBV immunity, contraindicated by a medical condition, or if the personnel or student has already received it.

A person's refusal to have the vaccine can be reversed at any time. Refusal of the vaccine and records of vaccine administration are kept in accordance with Cal/OSHA regulations. (See Appendix 4 of this manual.)

- 1. Cal/OSHA regulations on the administration of the Hepatitis B vaccinations include the following:
 - Make the vaccine available at reasonable time and place.
 - Ensure a licensed health care professional administer the vaccine according to the current U. S. Public Health Service guidelines.
 - Use an accredited laboratory.
 - Provide the vaccine within ten working days of initial assignment.
 - Pre-screening for immunity cannot be a prerequisite for receiving HBV vaccination.
 - Provide post-vaccination screening after the completion of the vaccination series, and after the second vaccination series if necessary.
 - If necessary, make a second vaccination series available.
 - Provide a booster in the future, if recommended by U.S. Public Health Service.

G. Bloodborne Pathogen Post-Exposure Evaluation and Follow-Up

Follow CDC recommendations after percutaneous, mucous membrane, or non-intact skin exposure to blood or other potentially infectious material.

Should an exposure incident occur, contact supervising faculty who will evaluate and administer initial first aid (clean the wound, flush eyes or other mucous membrane, etc.).

Perform the following activities:

- ✓ Document the routes of exposure and how the exposure occurred.
- ✓ Identify and document the source individual (unless the employer can establish that identification is infeasible or prohibited by state or local law).
- ✓ Obtain consent and arrange to have the source individual tested as soon as possible to determine HIV, HCV, and HBV infectivity.
- ✓ Document source individual's test results and convey the results to the employee's health care provider.

The U.S. Public Health Service currently recommends post-exposure prophylaxis for HIV be started within 1 to 24 hours of an exposure incident and notes that use of chemoprophylaxis is a clinical decision dependent on the characteristics of the injury.

If the source individual is already known to be HIV, HCV and HBV positive, new testing need not be performed.

Provide the exposed employee with the source individual's test results and with information about applicable disclosure laws and regulations concerning the identity and infectious status of the source individual (e.g., laws protecting confidentiality).

After obtaining consent, arrange to collect exposed employee's blood as soon as possible after the exposure incident and test blood for HBV and HIV serological status.

If the employee does not give consent for HIV serological testing during collection of blood for baseline testing, preserve the baseline blood sample for at least 90 days. If the exposed employee elects to have a baseline sample tested, during the waiting period, perform testing as soon as feasible.

Information Reviewed by the Healthcare Professional

The infection control officer will ensure that health care professional responsible for an employee's hepatitis B vaccination and post-exposure evaluation and follow-up are given a copy of the OSHA's Bloodborne Pathogens standard and ensure that the healthcare professional evaluating an employee after an exposure incident also receives the following:

- A description of the employee's job duties relevant to the exposure incident route(s) of exposure circumstances of exposure
- If possible, results of the source individual's blood test relevant employee medical records, including vaccination status

- The infection control officer will provide the employee with a copy of the evaluating healthcare professional's written opinion within 15 days after completion of the evaluation.

Healthcare Professional Written Opinion

The attending physician shall provide the college with the following information, in writing, within 15 days from completion of the evaluation:

- An opinion whether or not a vaccination for Hepatitis B is indicated and the series has been initiated.
- Confirmation that the employee has been informed of the results of the evaluation.
- Confirmation that the employee has been told about any medical conditions resulting from exposure to blood or other potentially infectious materials which require further evaluation or treatment.
- All other diagnoses and medical information are confidential.

H. Sharps Injury Log

If a Sharp was involved in the incident, record the incident on a Sharps Injury Log within 14 days of the incident (see Appendix 3 for a blank log).

- A. A "sharp" is any dental instrument or object that may penetrate the skin or any other part of the body, including but not limited to needles, burs, instruments, blades, wires, and broken glass.
- B. Record information that is known or reasonably available. Information on the log must be recorded and maintained in a manner that protects the confidentiality of the injured employee. If applicable, include the log information recorded on the *Employee Accident/Body Fluid Exposure and Follow-up form* and from employee reports and interview.
- C. The *Sharps Injury Log* is available upon request for viewing and copying to faculty and staff personnel and students, state Department of Health Services and Cal/OSHA.
- D. For each sharp involved in an exposure incident, this dental hygiene clinic periodically determines the frequency of that brand or type of sharps used

PROHIBITED WORK PRACTICES

The Taft College Dental Hygiene Program prohibits the following actions and practices:

- a. Storing food and drinks in refrigerators, freezers, cabinets, on shelves, countertops, or benchtops where blood or OPIM are present
- b. Eating, drinking, smoking, applying cosmetics or lip balm, and handling contact lenses in an area where there is a reasonable likelihood of occupational exposure
- c. Shearing or breaking contaminated needles and other sharps
- d. Bending, recapping, or removing contaminated sharps from devices
- e. Storing or processing sharps contaminated with blood and OPIM in a way that requires employees' hands to reach into contaminated containers
- f. Reusing disposable sharps
- g. Picking up contaminated broken glassware by hand, and
- h. Opening, emptying or cleaning of sharps containers in a manner that would expose personnel to the risk of a sharps injury

Dental Hazard Communication Standard Procedure

The following Hazard Communication Program follows the requirements of the OSHA Hazard Communications Standard of 2012, 29 CFR 1910.1200.

- A. It is the policy of the Taft College Dental Hygiene Program to ensure all affected personnel receives information about the dangers of all hazardous chemicals used in the dental hygiene clinic.
- B. Under this program, affected personnel will be informed of the contents of the OSHA Hazard Communications Standard, the hazardous properties of chemicals in the work area, safe handling procedures, and actions for protective measures.
- C. The Dental Hygiene Infection Control Coordinator (ICC) will oversee the program and have responsibility for reviewing and updating this plan as necessary.

Container labeling

- 1. The ICC will verify that all containers received for use are clearly labeled as to the contents with the appropriate hazard warning (including pictograms, hazard statement, signal words, and precautionary statements.
- **2.** The ICC will ensure that all secondary containers are labeled with an extra copy of the original manufacturer's label or with labels marked with the identity and the appropriate hazard warning.
- 3. No original labels are to be removed from any container. Labels will be made for any chemicals that are used out of their original containers (examples: ultrasonic cleaner tanks, cold-sterile containers, fixer/developer that is not automatically replenished, etc.) These labels will be placed on the container whenever possible or will be placed near the container so that the information can be immediately accessed if necessary.

The following labeling methods are used in this facility:

- a. Contaminated items Red bag; and Biohazard label
- b. Radiation pictograms
- c. Red Sharps containers (labeled)
- d. General labels for trash and supply items
- e. Notices for nitrous oxide and oxygen tanks
- f. Fire extinguishers

Hazardous Non-Routine Tasks

Periodically, employees are required to perform non-routine tasks that are hazardous. Examples of non-routine tasks are confined space entry, tank cleaning, and painting. Before starting work on such projects, each affected employee will be given information about the hazardous chemicals he or she may encounter during such activity.

This information will include specific chemical hazards, actions for protective and safety measures, and steps the dental hygiene program administration is taking to reduce the hazards, including ventilation, respirators, the presence of another employee (buddy systems), and emergency procedures.

Safety Data Sheets (SDS)

The ICC will be responsible for monitoring the SDS records. The ICC will ensure that procedures are developed to obtain the necessary SDSs and will review incoming SDSs for new or significant health and safety information.

Copies of SDSs for all hazardous chemicals to which personnel are exposed or are potentially exposed will be kept in the following location:

The SDS binder located on the Medical Emergency Cabinet in the front office of the dental hygiene clinic. SDSs will be readily available to all personnel during each clinic session. If an SDS is not available, contact the ICC or Clinic Technician.

Revised SDSs received, will replace old information sheets.

Personnel Training and Information

All personnel who have occupational exposure to bloodborne pathogens receive annual training through required continuing education for license renewal. Content includes epidemiology, symptoms, and transmission of bloodborne pathogen diseases.

New faculty and students receive:

- o A copy of the TCDH Exposure Control Manual (posted on Canvas/TCDH webpage)
- o Information on the hepatitis B vaccine, including information on its efficacy, safety, method of administration, the benefits of being vaccinated
- Information on the appropriate actions to take and persons to contact in an emergency involving blood or OPIM
- o Information on the post-exposure evaluation and follow-up that the employer is required to provide for the employee following an exposure incident
- An explanation of the signs and labels and/or color coding required by the standard and used at this facility

Materials for this facility are available in the dental hygiene clinic's office.

Medical Records

Medical records are maintained for each employee with occupational exposure in accordance with 29 CFR 1910.1020, "Access to Employee Exposure and Medical Records."

- A. These confidential records are kept in a confidential file in the Dental Hygiene Clinic office for at least the duration of employment.
- B. Personnel medical records are provided upon request of the employee or to anyone having written consent of the employee within 15 working days. Such requests should be sent to the Program Director

STANDARD OPERATING PROCEDURES

During each clinic session students shall ensure a safe and sterile working area by conforming to the following protocol:

Attire

- 1. Proper clinical attire, as defined in the personal protective equipment section of the CCR Title 8 Section 5193 Bloodborne pathogens. PPE shall be worn at all times in the dental hygiene operatory when treating patients.
- 2. Disposable clinic gowns are to be worn during disinfection, set—up procedures, patient treatment, clean-up procedures and when sterilization protocol is being followed.
- 3. Gowns should not be worn outside the clinical treatment/sterilization areas.
- 4. All gowns are disposable and should be deposited in the appropriate container at the end of the clinic session.

Hand Hygiene

Handwashing should be performed when hands are contaminated or visibly soiled,

Alcohol sanitizers may be used to sanitize visibly clean hands between gloving when performing procedures on the same patient. When antiseptic hand cleansers or towelettes are used, hands shall be washed with soap and running water as soon as feasible. Hand hygiene must be performed:

- a. Upon entering the dental hygiene operatory, students shall wash hands and under nails with warm water and soap for 2 minutes.
- b. Before and after treating each patient,
- c. Before donning gloves and after removing gloves
 - Protocol for repeated handwashing is applying soap, lathering for at least 20 seconds, rinsing and drying hands.
 - Protocol for applying alcohol sanitizer is applying solution to essentially clean hands, rub thoroughly while solution is wet for at least 15 seconds
- d. After touching objects that may be contaminated with blood or oral fluids (barehanded),
- e. Before and after wearing utility gloves; when decontaminating the dental hygiene operatory.

Lesions:

Dental hygiene students and staff who have exudative lesions or weeping dermatitis on hands shall refrain from all direct patient contact and from handling patient care equipment until the condition resolves.

Protective eyewear:

Protective eyewear will be worn during all procedures in the dental hygiene operatory and during sterilization protocol. Exception when taking vital signs.

If a student wears prescription glasses, a face shield will be provided by the instructor and worn over the prescription glasses. Face shields shall be disinfected in the same manner as protective eyewear.

After each patient protective eyewear shall be cleaned and disinfected.

Disposable Gowns

- Gowns should be changed at least daily or when visibly soiled with blood
- Reusable or disposable gowns must be worn when clothing is likely to be soiled with blood or other body fluids.
- Gowns should be changed at least daily or when visibly soiled with blood.
- Gowns are NOT worn outside of the clinic area: No gowns in clinic office; reception room; DH classroom or office areas.

Gloves

- Students and staff shall perform hand hygiene and put on new gloves before examining or treating each patient.
- Students shall wear examination gloves during all aspects of treatment with patient.
 - Exception: taking medical history and vitals (unless there are obvious lesions present on the patient's skin).
- Gloves shall not be washed before or after use.
- If gloves tear or become damaged, change immediately.
- When leaving operatory or touching unprotected surfaces, remove gloves and perform hand hygiene or wear over gloves (optional) over gloved hands.
- Clean gloves should be worn under utility gloves when disinfecting the dental operatory.
- Students and staff shall perform hand hygiene after removing and discarding glove

Over glove protocol (optional).

- Over gloves can never replace examination gloves in treating patients.
- When leaving operatory or touching unprotected surfaces, wear over gloves over gloved hands.
- Over gloves are discarded after a single use.

Utility gloves

- Utility gloves are worn during set up and break down of an operatory; processing instruments in the contaminated area, etc.
- Utility gloves are the only gloves that are not disposed of after one use.

Masks

- Students and staff shall wear ASTM class 3 facemasks when treating or examining a patient.
- Mask must fit snugly to the face, especially around mouth and nose.
- If a mask becomes damp, visibly soiled, it must be replaced immediately.
- Masks should be replaced after an hour of use.

Cleaning and disinfection of the dental hygiene operatory:

Students shall wear utility gloves, clean examination gloves under PURPLE utility gloves, protective eyewear, masks and disposable clinic gowns while performing the following set—up procedures in the dental hygiene operatory.

Pre-Cleaning

- At the beginning of each clinical session, flush water through water lines for 2 minutes.
- Prior to seating the patient, the equipment and surfaces subject to contamination should be cleaned and disinfected.
 - 1. Use one Caviwipe towelette to clean surface of all debris. Wipe the following:
 - Counter tops

- Writing utensils
- Dental chair including the base
- Dental light
- All dental hoses
- Dental switches
- Dental unit tray table
- Operator stools
- 2. Use a second Caviwipe towelette (or more) to thoroughly wet the surface ensuring that the surface remain visibly wet for 3 minutes

Caviwipe kill claim 2 minutes	Caviwipe kill claim 3 minutes
 Vancomycin Resistant Enterococcus faecalis (VRE) Staphylococcus aureus with reduced susceptibility to vancomycin Hepatitis B Virus (HBV) Hepatitis C Virus (HCV) Human Immunodeficiency Virus (HIV-1) Herpes Simplex Virus Types 1 and 2 Influenza A2 Virus 	 Mycobacterium tuberculosis var: bovis (BCG) Methicillin Resistant Staphylococcus aureus (MRSA) Pseudomonas aeruginosa Salmonella enterica Trichophyton mentagrophytes Staphylococcus aureus

Setting Up the Operatory

Equipment and Surface Barriers

- Cover items or surfaces that are likely to become contaminated and are difficult to clean and disinfect with disposable impervious barriers.
- Barriers should be impervious to liquids and changed between each patient.
- With all PPE on (with exam gloves on), place protective barriers on the following:
 - o Writing utensils
 - o Dental light switch
 - o Dental chair switches
 - Dental chair
 - o All hoses
 - Air/water syringe
 - o Dental chair tray table (place tray barrier)
 - Operator stools (back rest and switch)
 - o Cavitron unit and tip (if being used)
 - o Curing light (if being used)
 - o Counter where tray and/or tubs are to be placed.
- Use disposables for:
 - o Air/ water tip.
 - o All evacuation suction tips.
 - o Saliva ejector.

Attach a small bag to the dental unit, where materials stained with blood will be placed.

When working in the dental hygiene operatory, avoid contaminating areas and objects that are difficult or impossible to disinfect, i.e. charts, x—rays, paperwork, pens, etc.

Plastic over gloves must be used to prevent contamination of exam gloves when contacting unprotected areas and items such as charts, pens and x-rays or when entering a drawer, etc.

UPON COMPLETION OF SET UP

Remove all PPE except gown. Perform hand hygiene.

Seating patient

Gowns/gloves are NOT worn outside of the clinic area:

Seat patient and place patient napkin that has adhesive to patient's clothes.

Wash/sanitize hands according to the appropriate protocol.

Review patient medical history and take vitals.

Don mask and eyewear.

Don gloves.

Go to designated infection control storage area where you have assembled the instrument tray on a barrier.

Carry to operatory and place on counter where there is a barrier.

Remove tray covering, sterilization bag; drop instruments on tray and organize for treatment.

The following protocol should be adhered to when treating a patient:

- o Consider body fluids of all patients as potentially contaminated materials.
- Always wear, PPE, which includes mask, protective eyewear, gloves and disposable gown whenever treating patients, following protocols described previously in this protocol.
- o Follow hand hygiene (hand-washing/sanitizing) etiquette described previously in this protocol.
- o Have patient rinse with antimicrobial rinse before beginning treatment.
- If an instrument is dropped and/or contaminated, replace with sterilized instrument immediately. Place contaminated instrument into an area away from the sterilized instruments.
- o If a disposable item is dropped and/or contaminated, discard and replace with fresh item.

WHEN NEEDED: Remove gloves, perform hand hygiene and replace gloves.

- Single—use disposable instruments (i.e. prophylaxis angles, prophylaxis cups, saliva ejectors, air—water syringe tips, etc.) shall be used for one patient only and discarded after use.
- o If a chart must be touched during treatment, or a drawer opened, use a paper towel. These procedures should be kept at a minimum.
- o Treatment is rendered to the patient following the protocol described
- o After treatment has been rendered, remove patient napkin, patient's protective eyewear and place on the instrument tray.
- o Remove gloves, perform hand hygiene.
- Dismiss patient.

Dental hygiene operatory Clean—Up and Exiting:

- Always wear PPE during cleanup of the operatory.
- Don clean examination gloves, then utility gloves for clean—up protocol.
- Any cotton products that possess a red spot from blood are always placed into the bag taped to the unit.
- Place properly recapped used needles or other sharps (cartridges with aspirated blood, broken glass etc.) in the nearest Sharps container
- Place unused anesthetic (no blood) on patient's tray for disposal in sterilization room.
- Remove the handpiece (if utilized) and place on instrument tray in preparation for sterilization.
- All instruments, whether or not they have been used are replaced on the tray in preparation for sterilization.
- Still wearing PPE and utility gloves, carry covered instrument tray with all items described above to the sterilization area. Do not stop, touch anything until you reach contaminated area of sterilization area.

Sterilization and Disinfection of Patient Care Items

The sterilization room is divided into three areas:

- 1. for contaminated instruments and trash,
- 2. for cleaned instruments ready for packaging, and
- 3. for sterilized instruments.
 - Carefully remove disposable items from the tray and drop into the trash
 - Small bag containing hazardous waste from the operatory is placed into trash or biohazard red container.
 - Place instrument cassette in the sink and spray enzymatic solution.
 - When [five] minutes have elapsed, RINSE off enzymatic solution under a steady stream of warm water for 30 seconds.
 - Using a caviwipe clean patient tray and set aside in drying rack.
 - Return to operatory to continue clean- up

Dental hygiene operatory

- The dental unit lines should be flushed with water for 20 to 30 seconds
- At the end of the day all dental unit lines should be flushed with enzymatic solution (use PINK buckets)
- Barriers, disposable items such as oral evacuation tips, saliva ejectors, 2x2 (not contaminated with blood etc. placed into regular trash.
- PURPLE utility gloves: Use Caviwipe towelette to clean surface of all debris.
- Use a second Caviwipe towelette (or more) to thoroughly wet the surface ensuring that the surface remain visibly wet for 3 minutes
- Patient eyewear should be wiped with Caviwipes or appropriate disinfecting product.

Return to the sterilization room to continue processing instruments.

- Intra-oral items such as impressions, bite registrations, etc. shall be cleaned and spray disinfected with intermediate level disinfectant and placed in a plastic bag in preparation for exiting the operatory.

PROCESSING INSTRUMENTS

Use **GREEN** utility gloves when processing contaminated instruments The sterilization room is divided into three areas:

- one for contaminated instruments and trash,
- the second for cleaned instruments ready for packaging,
- and a third for sterilized instruments.
- 1. When [five] minutes have elapsed, rinse off enzymatic solution under a steady stream of warm water for 30 seconds.
- 2. Place instruments into dishwasher or ultrasonic unit, cover and set timer for prescribed processing time.

If handpieces are to be sterilized, the following process occurs:

- Using a 2x2 or paper towel, clean the outside of the handpiece with warm water

- and soap or alcohol. Rinse carefully.
- Follow manufacturer's directions for lubrication protocol.
- Put into bag/pouch and label on self-seal tab with black, permanent ink:
- Prepare and label a pouch for instrument cassettes.
- After the instruments have been run through ultrasonic unit or dishwasher for the prescribed time, remove from the unit
- Check instruments for visible remaining debris.

If debris remains, repeat steps beginning with soaking in enzymatic solution.

Place instruments from the ultrasonic unit or dishwasher out onto a towel in CLEAN AREA not STERILE area of room, being careful not to touch instruments. Leave instruments to dry.

Preparing Items for Sterilization

Bagging instruments for sterilization. Use PURPLE utility gloves marked with 'sterilization"

- 1. Dried instruments are placed into a sterilization bag/pouch.
- 2. Instrument bag is labeled on self-seal tab with Instrument owner's initials, date, sterilizer #, load #, operator initials.

INCLUDE an *indicator strip* in EVERY sterilization pouch/bag.

- 1. Place into a sterilizer
- 2. Close door and begin sterilization cycle as instructed
- 3. Enter information into log book as instructed

Autoclave

- For instruments that are placed in pouches, the sterilization temperature is approximately 270 degree F with a 27.1 psi.
- Sterilization time is approximately 15 20 minutes.
- Drying within the autoclave is approximately 30 50 minutes.
- If after sterilization and the drying time has elapsed, the bags are still moist, leave in autoclave until completely dry.

Remove utility gloves. Place in container in sterilization area for used utility gloves.

CLEANING Sterilization SPACE

Disinfection of instrument and holding trays/containers

- Use one Caviwipe towelette to thoroughly wet the surface; use a second wipe ensuring that the surface remain visibly wet for 3 minutes.

Storage of Sterilized and Disinfected Materials:

- When getting ready to handle the sterilized and disinfected items, don examination gloves. Whenever you open a cabinet door, container, etc. always use a paper towel.
- After the drying has been completed, place items into their appropriate clinic drawers.

CLEANING the GREEN Gloves

- Place the gloves on the hands and wash with warm soap and water
- Pat dry with paper towel
- Clean with OPTI WIPES
- Remove and hang on the inside of the lower cabinet door under the sink

USE clean PURPLE utility gloves over clean exam gloves and disinfect instrument trays and counters as described in this protocol.

- Wipe counters, trays and equipment with OPTI WIPES located on the counter
- Remove disposable gown, mask and place into the regular trash
- Remove examination gloves, dispose into regular trash.
- Perform hand hygiene.

DENTAL EVACUATION LINES/TRAPS

SUCTION LINES:

- Suction lines are cleaned with enzymatic solution (PINK buckets) after each clinic session or at end of clinic day.

TRAPS:

Evacuation/ Suction line traps are changed each Monday prior to clinic session by students

References:

California Dental Association (2012). Regulatory compliance: Dental office Waste Management Options. Available at cda.org

Centers for Disease Control and Prevention (2003). Guidelines for Infection Control in Dental Health-Care Settings – 2003. MMWR; 52 (No.RR-17)

Centers for Disease Control and Prevention (October 2016). Summary of Infection Prevention Practices in Dental Settings: Basic Expectations for Safe Care. Atlanta, GA

Occupational Safety and Health Administration (2003). Model plans and programs for the OSHA bloodborne pathogens and hazard communications standards 3186. Retrieved from https://www.osha.gov/Publications/osha3186.pdf

State of California Department of Industrial Relations (2016). Exposure control plan for bloodborne pathogens. Retrieved from https://www.dir.ca.gov/dosh/dosh_publications/expplan2.pdf

U.S. Public Health Service Guidelines for the Management of Occupational Exposures to HBV, HCV, and HIV and Recommendations for Post Exposure Prophylaxis. MMWR June 29, 2001; Vol. 50 (No. RR-11).

Appendix 1: Individual Training Documentation

Name of Trainer:						
	Training Subject: Exposure Control Plan					
Trainin	g Materials Used:					
Emplo	Employee Training Checklist:					
	Trained in proper use of latex, nitrile and vinyl gloves					
	Trained in use of safety glasses and face mask or protective shield during procedures where splashing, aerosolization of blood, saliva, or gingival fluids is likely					
	Trained in use of protective outer-wear necessary for appropriate dental procedures					
	Instructed in the one-handed scoop technique, or use of a mechanical recapping device, for recapping needles					
	Instructed on proper use of safety needles and other sharps with engineered sharps					
	injury protection					
	Instructed on work practice controls to prevent needlesticks and other sharps injuries					
	Instructed on procedures to follow if needle stick or exposure to bloodborne pathogens occurs					
	Instructed in cleaning and disinfecting environmental surfaces with an EPA-labeled hospital disinfectant					
	Instructed in the use of general purpose utility gloves and other personal protective equipment for instrument processing and environmental surface disinfection					
	Instructed in the proper use of sterilization equipment for sterilization of instruments					
	Instructed in the proper use of ultrasonic machine and dishwasher for cleaning instruments					

	Instructed in the disinfection of impressions and appliances to and from the dental laboratory				
	Instructed in the proper use of pocket masks, resuscitation bags, other ventilation devices where the need for resuscitation is likely				
	Informed personnel that standard precautions for infection control are to be adhered to fo all patients				
	Trained and educated in epidemiology, modes of transmission and prevention of HBV, HCV and HIV				
	All personnel potentially exposed to Hepatitis B virus have been offered the Hepatitis B vaccine free of charge and informed of benefits and health protection of vaccination. Any personnel who refuses vaccination offer has signed a written statement indicating he/she has been offered the vaccination free of charge and has declined it voluntarily.				
Date of	Hire/Assignment:				
Ι,	hereby certify that I received training as described above.				
I understand this training and agree to comply with the safety procedures for my work area.					
	Employee Signature Date				

Copy this blank page for each employee who will be trained. Make additional copies for future employees. Place a completed copy in employee personnel file or other appropriate employee file.

California Code of Regulations Title 16 Section 1005

California Code of Regulations Title 16 §1005. Minimum Standards for Infection Control

a. Definitions of terms used in this section:

- 1. "Standard precautions" are a group of infection prevention practices that apply to all patients, regardless of suspected or confirmed infection status, in any setting in which healthcare is delivered. These include hand hygiene, use of gloves, gown, mask, eye protection, or face shield, depending on the anticipated exposure, and safe handling of sharps. Standard precautions shall be used for care of all patients regardless of their diagnoses or personal infectious status.
- 2. "Critical items" confer a high risk for infection if they are contaminated with any microorganism. These include all instruments, devices, and other items used to penetrate soft tissue or bone.
- 3. "Semi-critical items" are instruments, devices and other items that are not used to penetrate soft tissue or bone, but contact oral mucous membranes, non-intact skin or other potentially infectious materials (OPIM).
- 4. "Non-critical items" are instruments, devices, equipment, and surfaces that come in contact with soil, debris, saliva, blood, OPIM and intact skin, but not oral mucous membranes.
- 5. "Low-level disinfection" is the least effective disinfection process. It kills some bacteria, some viruses and fungi, but does not kill bacterial spores or mycobacterium tuberculosis var bovis, a laboratory test organism used to classify the strength of disinfectant chemicals.
- 6. "Intermediate-level disinfection" kills mycobacterium tuberculosis var bovis indicating that many human pathogens are also killed. This process does not necessarily kill spores.
- 7. "High-level disinfection" kills some, but not necessarily all bacterial spores. This process kills mycobacterium tuberculosis var bovis, bacteria, fungi, and viruses.
- 8. "Germicide" is a chemical agent that can be used to disinfect items and surfaces based on the level of contamination.
- 9. "Sterilization" is a validated process used to render a product free of all forms of viable microorganisms.
- 10. "Cleaning" is the removal of visible soil (e.g., organic and inorganic material) debris and OPIM from objects and surfaces and shall be accomplished manually or mechanically using water with detergents or enzymatic products.
- 11. "Personal Protective Equipment" (PPE) is specialized clothing or equipment worn or used for protection against a hazard. PPE items may include, but are not limited to, gloves, masks, respiratory devices, protective eyewear and protective attire which are intended to prevent exposure to blood, body fluids, and OPIM, and chemicals used for infection control. General work attire such as uniforms, scrubs, pants and shirts, are not considered to be PPE.
- 12. "Other Potentially Infectious Materials" (OPIM) means any one of the following:

 A. Human body fluids such as saliva in dental procedures and any body fluid that is visibly contaminated with blood, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids. B. Any unfixed tissue or organ (other than intact skin) from a human (living or dead).
- C. Any of the following, if known or reasonably likely to contain or be infected with HIV, HBV, or HCV:
 - 1. Cell, tissue, or organ cultures from humans or experimental animals; 2. Blood, organs, or other tissues from experimental animals; or 3. Culture medium or other solutions.

- 13. "Dental Healthcare Personnel" (DHCP) are all paid and non-paid personnel in the dental health-care setting who might be occupationally exposed to infectious materials, including body substances and contaminated supplies, equipment, environmental surfaces, water, or air. DHCP includes dentists, dental hygienists, dental assistants, dental laboratory technicians (inoffice and commercial), students and trainees, contractual personnel, and other persons not directly involved in patient care but potentially exposed to infectious agents (e.g., administrative, clerical, housekeeping, maintenance or volunteer personnel).
- b. All DHCP shall comply with infection control precautions and enforce the following minimum precautions to minimize the transmission of pathogens in health care settings mandated by the California Division of Occupational Safety and Health (Cal/OSHA).
 - 1. Standard precautions shall be practiced in the care of all patients.
 - 2. A written protocol shall be developed, maintained, and periodically updated for proper instrument processing, operatory cleanliness, and management of injuries. The protocol shall be made available to all DHCP at the dental office.
 - 3. A copy of this regulation shall be conspicuously posted in each dental office.

Personal Protective Equipment:

- 4. All DHCP shall wear surgical facemasks in combination with either chin length plastic face shields or protective eyewear whenever there is potential for aerosol spray, splashing or spattering of the following: droplet nuclei, blood, chemical or germicidal agents or OPIM. Chemical-resistant utility gloves and appropriate, task specific PPE shall be worn when handling hazardous chemicals. After each patient treatment, masks shall be changed and disposed. After each patient treatment, face shields and protective eyewear shall be cleaned, disinfected, or disposed.
- 5. Protective attire shall be worn for disinfection, sterilization, and housekeeping procedures involving the use of germicides or handling contaminated items. All DHCP shall wear reusable or disposable protective attire whenever there is a potential for aerosol spray, splashing or spattering of blood, OPIM, or chemicals and germicidal agents. Protective attire must be changed daily or between patients if they should become moist or visibly soiled. All PPE used during patient care shall be removed when leaving laboratories or areas of patient care activities. Reusable gowns shall be laundered in accordance with Cal/OSHA Bloodborne Pathogens Standards (Title 8, Cal. Code Regs., section 5193).

Hand Hygiene:

- 6. All DHCP shall thoroughly wash their hands with soap and water at the start and end of each workday. DHCP shall wash contaminated or visibly soiled hands with soap and water and put on new gloves before treating each patient. If hands are not visibly soiled or contaminated an alcohol based hand rub may be used as an alternative to soap and water. Hands shall be thoroughly dried before donning gloves in order to prevent promotion of bacterial growth and washed again immediately after glove removal. A DHCP shall refrain from providing direct patient care if hand conditions are present that may render DHCP or patients more susceptible to opportunistic infection or exposure.
- 7. All DHCP who have exudative lesions or weeping dermatitis of the hand shall refrain from all direct patient care and from handling patient care equipment until the condition resolves.

Gloves:

8. Medical exam gloves shall be worn whenever there is contact with mucous membranes, blood, OPIM, and during all pre-clinical, clinical, post-clinical, and laboratory procedures. When processing contaminated sharp instruments, needles and devices, DHCP shall wear heavy-duty utility gloves to prevent puncture wounds. Gloves must be discarded when torn or punctured, upon completion of treatment, and before leaving laboratories or areas of patient care activities. All DHCP shall perform hand hygiene procedures before donning gloves and after removing and discarding gloves. Gloves shall not be washed before or after use.

Needle and Sharps Safety:

9. Needles shall be recapped only by using the scoop technique or a protective device. Needles shall not be bent or broken for the purpose of disposal. Disposable needles, syringes, scalpel blades, or other sharp items and instruments shall be placed into sharps containers for disposal as close as possible to the point of use according to all applicable local, state, and federal regulations.

Sterilization and Disinfection:

- 10. All germicides must be used in accordance with intended use and label instructions.
- 11. Cleaning must precede any disinfection or sterilization process. Products used to clean items or surfaces prior to disinfection procedures shall be used according to all label instructions.
- 12. Critical instruments, items and devices shall be discarded or pre-cleaned, packaged or wrapped and sterilized after each use. Methods of sterilization shall include steam under pressure (autoclaving), chemical vapor, and dry heat. If a critical item is heat-sensitive, it shall, at a minimum, be processed with high-level disinfection and packaged or wrapped upon completion of the disinfection process. These instruments, items, and devices, shall remain sealed and stored in a manner so as to prevent contamination, and shall be labeled with the date of sterilization and the specific sterilizer used if more than one sterilizer is utilized in the facility.
- 13. Semi-critical instruments, items, and devices shall be pre-cleaned, packaged or wrapped and sterilized after each use. Methods of sterilization include steam under pressure (autoclaving), chemical vapor and dry heat. If a semi-critical item is heat sensitive, it shall, at minimum, be processed with high level disinfection and packaged or wrapped upon completion of the disinfection process. These packages or containers shall remain sealed and shall be stored in a manner so as to prevent contamination, and shall be labeled with the date of sterilization and the specific sterilizer used if more than one sterilizer is utilized in the facility.
- 14. Non-critical surfaces and patient care items shall be cleaned and disinfected with a California Environmental
 - Protection Agency (Cal/EPA)-registered hospital disinfectant (low-level disinfectant) labeled effective against HBV and HIV. When the item is visibly contaminated with blood or OPIM, a Cal/EPA-registered hospital intermediate-level disinfectant with a tuberculocidal claim shall be used.
- 15. All high-speed dental hand pieces, low-speed hand pieces, rotary components, and dental unit attachments such as reusable air/water syringe tips and ultrasonic scaler tips, shall be packaged, labeled and heat-sterilized in a manner consistent with the same sterilization practices as a semi-critical item.

- 16. Single use disposable items such as prophylaxis angles, prophylaxis cups and brushes, tips for high-speed evacuators, saliva ejectors, air/water syringe tips, and gloves shall be used for one patient only and discarded.
- 17. Proper functioning of the sterilization cycle of all sterilization devices shall be verified at least weekly through the use of a biological indicator (such as a spore test). Test results shall be documented and maintained for 12 months.

Irrigation:

18. Sterile coolants/irrigants shall be used for surgical procedures involving soft tissue or bone. Sterile coolants/irrigants must be delivered using a sterile delivery system.

Facilities:

- 19. If non-critical items or surfaces likely to be contaminated are manufactured in a manner preventing cleaning and disinfection, they shall be protected with disposable impervious barriers. Disposable barriers shall be changed when visibly soiled or damaged and between patients.
- 20. Clean and disinfect all clinical contact surfaces that are not protected by impervious barriers using a California Environmental Protection Agency (Cal-EPA) registered, hospital grade low- to intermediate-level germicide after each patient. The low-level disinfectants used shall be labeled effective against HBV and HIV. Use disinfectants in accordance with the manufacturer's instructions. Clean all housekeeping surfaces (e.g. floors, walls, sinks) with a detergent and water or a Cal-EPA registered, hospital grade disinfectant. Products used to clean items or surfaces prior to disinfection procedures shall be clearly labeled and DHCP shall follow all material safety data sheet (MSDS) handling and storage instructions.
- 21. Dental unit water lines shall be anti-retractive. At the beginning of each workday, dental unit lines and devices shall be purged with air or flushed with water for at least two (2) minutes prior to attaching handpieces, scalers, air water syringe tips, or other devices. The dental unit lines and devices shall be flushed between each patient for a minimum of twenty (20) seconds.
- 22. Contaminated solid waste shall be disposed of according to applicable local, state, and federal environmental standards.

Lab Areas:

- 23. Splash shields and equipment guards shall be used on dental laboratory lathes. Fresh pumice and a sterilized or new rag-wheel shall be used for each patient. Devices used to polish, trim, or adjust contaminated intraoral devices shall be disinfected or sterilized, properly packaged or wrapped and labeled with the date and the specific sterilizer used if more than one sterilizer is utilized in the facility. If packaging is compromised, the instruments shall be recleaned, packaged in a new wrap, and sterilized again. Sterilized items will be stored in a manner so as to prevent contamination.
- 24. All intraoral items such as impressions, bite registrations, prosthetic and orthodontic appliances shall be cleaned and disinfected with an intermediate-level disinfectant before manipulation in the laboratory and before placement in the patient's mouth. Such items shall be thoroughly rinsed prior to placement in the patient's mouth.
- c. The Dental Board of California and the Dental Hygiene Committee of California shall review this regulation annually and establish a consensus.

Note: Authority cited: Section 1614, Business and Professions Code. Reference: Section 1680, Business and Professions Code.