



**Standard Operating Procedures for Infection Control**

**Dental Hygiene Operatory Preparation and Clean-up  
Sterilization of Dental Instruments**

**Taft College  
Dental Hygiene**

**2017**

- I. Preparation before setting up the dental hygiene operatory**  
**During each clinic session students shall ensure a safe and sterile working area by conforming to the following protocol:**
- A. Attire
1. Proper clinical attire, as defined in the personal protective equipment section of the 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.
- B. Hand Hygiene
1. Handwashing should be performed when hands are contaminated or visibly soiled,
  2. Alcohol sanitizers may be used to sanitize visibly clean hands.
  3. 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
      - i. Protocol for repeated handwashing is applying soap, lathering for at least 20 seconds, rinsing and drying hands.
      - ii. 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.
- C. Lesions:
1. 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.
  2. Conditions, as previously stated above, that exist on areas of the face, need to be properly covered during all aspects of patient treatment.
- D. Protective eyewear (goggles)
1. Protective eyewear (goggles) will be worn during all procedures in the dental hygiene operatory and during sterilization protocol. Exception when taking vital signs.
  2. If prescription glasses are worn, side shields must be used.
  3. Alternatively, 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.  
Clinic patients will also wear protective eyewear (provided by the educational

provider or their own) during all dental procedures.

4. After each patient protective eyewear shall be cleaned and disinfected.

#### E. Disposable Gowns

1. Gowns should be changed at least daily or when visibly soiled with blood.
2. Reusable or disposable gowns must be worn when clothing is likely to be soiled with blood or other body fluids.

#### F. Gloves

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

#### G. Over glove protocol (optional).

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

#### H. Utility gloves

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

#### I. Masks

1. Students and staff shall wear new ASTM class 3 facemasks when treating or examining a patient.
2. Mask must fit snugly to the face, especially around mouth and nose.
3. Masks must NOT be worn below the chin.
4. If a mask becomes damp, visibly soiled, it must be replaced immediately.
5. Masks should be replaced after an hour of use.

## II. Cleaning and disinfection of the dental hygiene operatory:

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

1. At the beginning of each clinical session, flush water through water lines for 2 to three (3) minutes.
2. Prior to seating the patient, the equipment and surfaces subject to contamination should be cleaned and disinfected.
3. Use one Caviwipe towelette to clean surface of all debris.
4. Wipe the following:
  - a. Counter tops
  - b. Writing utensils
  - c. Dental chair
  - d. Dental light
  - e. All dental hoses
  - f. Air/water syringe and hose
  - g. Dental switches
  - h. Dental unit tray table
  - i. Operator stools
5. 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
<ul style="list-style-type: none"> <li>• Vancomycin Resistant Enterococcus faecalis (VRE)</li> <li>• Staphylococcus aureus with reduced susceptibility to vancomycin</li> <li>• Hepatitis B Virus (HBV)</li> <li>• Hepatitis C Virus (HCV)</li> <li>• Human Immunodeficiency Virus (HIV-1)</li> <li>• Herpes Simplex Virus Types 1 and 2</li> <li>• Influenza A2 Virus</li> </ul>	<ul style="list-style-type: none"> <li>• Mycobacterium tuberculosis var: bovis (BCG)</li> <li>• Methicillin Resistant Staphylococcus aureus (MRSA)</li> <li>• Pseudomonas aeruginosa</li> <li>• Salmonella enterica</li> <li>• Trichophyton mentagrophytes</li> <li>• Staphylococcus aureus</li> </ul>

C. Setting Up the Operatory

1. 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.
2. 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.

D. Equipment and Surface Barriers

1. Cover items or surfaces that are likely to become contaminated and are difficult to clean and disinfect with disposable impervious barriers.

2. Barriers should be impervious to liquids and changed between each patient.
3. With all PPE on (with exam gloves on), place protective barriers on the following:
  - a. Writing utensils
  - b. Dental light switch
  - c. Dental chair switches
  - d. Dental chair
  - e. All hoses
  - f. V Air/water syringe
  - g. Dental chair tray table (place tray barrier over this tray table)
  - h. Operator stools (back rest and switch)
  - i. Cavitron unit and tip (if being used)
  - j. Curing light (if being used)
  - k. Counter where tray and/or tubs are to be placed.
4. Use disposables for:
  - a. Air/ water tip.
  - b. All evacuation suction tips.
  - c. Saliva ejector.
5. Attach a small bag to the dental unit, where materials stained with blood will be placed.
6. Remove all PPE except gown. Perform hand hygiene.

#### E. Seating patient

1. Barehanded go to the waiting area and secure your patient. Seat patient and place patient napkin that has adhesive to patient's clothes. Wash/sanitize hands according to the appropriate protocol.
2. Review patient medical history and take vitals.
3. Don mask and eyewear. Perform hand hygiene. 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.
4. Remove tray covering, sterilization bag; drop instruments on tray and organize for treatment.
5. Then place instrument tray on the chair tray table.

#### F. Patient Treatment:

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

1. Consider body fluids of all patients as potentially contaminated materials.
2. Always wear, PPE, which includes mask, protective eyewear, gloves and disposable gown whenever treating patients, following protocols described previously in this protocol.
3. Follow hand hygiene (hand-washing/sanitizing) etiquette described previously in this protocol.
4. Follow protocol for Clinical attire described previously.
5. Have patient rinse with antimicrobial rinse before beginning treatment.
6. Instrument and disposable item contamination.
  - a. If an instrument is dropped and/or contaminated, replace with sterilized instrument immediately. Place contaminated instrument into

an area away from the sterilized instruments.

- b. If a disposable item is dropped and/or contaminated, discard and replace with fresh item.
- c. Remove gloves, perform hand hygiene and replace gloves.
7. 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.
8. If a chart must be touched during treatment, or a drawer opened, use a paper towel. These procedures should be kept at a minimum.
9. Treatment is rendered to the patient following the protocol described under 1—7 and those previously described in this protocol.
10. After treatment has been rendered, remove patient napkin, patient's protective eyewear and place on the instrument tray.
11. Remove gloves, perform hand hygiene. Dismiss patient.

#### G. Dental hygiene operatory Clean—Up and Exiting:

1. Always wear PPE during cleanup of the operatory. Don clean examination gloves, then utility gloves for clean—up protocol.
2. Any cotton products that possess a red spot from blood are always placed into the bag taped to the unit. This bag is used for **biohazardous waste**. Remove and place on patient's tray.
3. Place properly recapped used needles or other sharps (carpules with aspirated blood, broken glass etc.) in the nearest Sharps container
4. Place unused anesthetic (no blood) on patient's tray for disposal in sterilization room.
5. Remove the handpiece (if utilized) and place on instrument tray in preparation for sterilization.
6. All instruments, whether or not they have been used are replaced on the tray in preparation for sterilization.
7. Still wearing protective eyewear, disposable gown, mask 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.

#### H. Sterilization and Disinfection of Patient Care Items – Part I.

1. 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.
2. Carefully remove disposable items from the tray and drop into the appropriate container.
3. Small bag containing hazardous waste from the operatory is placed into trash or biohazard red container.
4. Unused anesthetic carpules or carpules with left over anesthetic (no blood) are placed in the sharps pharmaceutical waste container.
5. Remove instruments that require sterilization and gently place them into an enzymatic holding solution that is in the sink.
6. When [five] minutes have elapsed, rinse off enzymatic solution under a steady stream of warm water for 30 seconds.

7. Place instrument cassette in the sink and spray enzymatic solution.
  8. Using a caviwipe clean patient tray and set aside in drying rack.
  9. Return to operatory to continue clean- up
- I. Dental hygiene operatory Clean—Continued
1. The dental unit lines should be flushed with water for 20 to 30 seconds between each patient.
  2. At the end of the day all dental unit lines should be flushed with enzymatic solution.
  3. All disposable items that are not considered hazardous waste are disposed in regular trash.
  4. Barriers, disposable items such as oral evacuation tips, saliva ejectors, 2x2 (not contaminated with blood etc. placed into regular trash.
  5. Use one Caviwipe towelette to clean surface of all debris.
  6. Use a second Caviwipe towelette (or more) to thoroughly wet the surface ensuring that the surface remain visibly wet for 3 minutes
  7. Return to the sterilization room to continue processing instruments.
  8. 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.

### III. Preparing Items for Sterilization:

1. Whenever you turn on the water, remove a lid, open a drawer, etc. always use a paper towel or other barrier, as your gloves have been contaminated during the operatory clean—up procedures.
2. 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.
3. When [five] minutes have elapsed, rinse off enzymatic solution under a steady stream of warm water for 30 seconds.
4. Place instruments into dishwasher or ultrasonic unit, cover and set timer for prescribed processing time.
5. While instruments are being run through dishwasher or ultrasonic unit, if handpieces are to be sterilized, the following process occurs:
6. Using a 2x2 or paper towel, clean the outside of the handpiece with warm water and soap or alcohol. Rinse carefully.
7. Follow manufacturer's directions for lubrication protocol.
8. Put into bag/pouch and label on self-seal tab with black, permanent ink:  
**Instrument owner's initials, date, sterilizer #, load #, operator initials.**
9. Prepare and label a pouch for instrument cassette.
10. Bagged handpiece is placed onto a barrier in preparation for sterilization.
11. After the instruments have been run through ultrasonic unit or dishwasher for the prescribed time, remove from the unit and rinse thoroughly under cool running water.
12. Check instruments for visible remaining debris.
13. If debris remains, repeat steps beginning with soaking in enzymatic solution.
14. Place instruments from the ultrasonic unit or dishwasher out onto a towel in clean not sterile area of room, being careful not to touch instruments. Leave

instruments to dry.

B. Bagging instruments for 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.**
3. Be sure that a process/chemical indicator or strip is on the inside of the bag to verify that the internal components of the bag have been sterilized after the prescribed period of time. Or
4. Using a class 5 pouch eliminates need for chemical indicator strip inside.
5. Remove utility gloves.
6. Place in container in sterilization area for used utility gloves.
7. With your clean examination gloves still on, don clean utility gloves over clean exam gloves and disinfect instrument trays and counters as described in this protocol.
8. Remove utility gloves.
9. With clean exam gloves still on, wash utility gloves with warm water and soap.
10. Rinse completely for at least 30 seconds.
11. Blot dry with a paper towel and set aside on barrier in preparation for sterilization. (Optional)
12. When sterilization occurs, these gloves are bagged like regular instruments.
13. Using a paper towel, being careful not to touch handle of sterilizer, open sterilizer door.
14. Using transfer forceps, place prepared instruments, handpiece, etc. bags into sterilizer.
15. Follow-up with placing dried utility gloves into sterilizer (Optional)
16. Then place transfer forceps into sterilizer.
17. Close door and begin sterilization cycle.
18. Remove your disposable gown, mask and protective eyewear.
19. Place disposable gown into the regular trash unless saturated in blood stain, then dispose into biohazard red waste.
20. Place protective eyewear into container in preparation for disinfection.
21. Dispose of mask into the regular trash container or if saturated with blood into the container marked biohazardous waste.
22. Remove examination gloves, dispose into regular trash. Perform hand hygiene.

**IV. Sterilization of Instruments, Handpieces. Etc.:**

**Always follow the manufacturer's direction on proper sterilization protocol for each sterilizer being utilized.**

A. Autoclave

1. For regular instruments that are placed in pouches, the sterilization temperature is approximately 270 degree F with a 27.1 psi.
2. Sterilization time is approximately 15 — 20 minutes.
3. Drying within the autoclave is approximately 30 minutes.
4. The instruments are then removed with sterilizing forceps and placed onto a barrier to continue the drying process for another 20 minutes.



5. Handpieces bagged use the same temperature, psi and time for sterilization and drying as regular instruments in a pouch.
6. If after sterilization and the drying time has elapsed, the bags are still moist, place them on top of a mesh rack to dry.

**B. Item and Counter Disinfection:**

1. Wearing clean utility gloves, protective eyewear, mask and a new disposable gown perform the following simple steps:
2. Disinfection of protective eyewear used during pre—sterilization cycle.
3. Remove protective eyewear from the container on the counter and wash with soap and warm water.
4. Rinse thoroughly.
5. Use a Caviwipe towelette to wipe areas of eyewear. Leave wet for 3 minutes.
6. Rinse eyewear and let dry on clean barrier.

**C. Disinfection of instrument and holding trays/containers**

1. Wash with soap and warm water.
2. Rinse thoroughly.
3. Use one Caviwipe towelette to thoroughly wet the surface ensuring that the surface remain visibly wet for 3 minutes

**D. Counter disinfection**

1. Use one Caviwipe towelette to wipe the counter tops.
2. Use a second Caviwipe towelette or more to thoroughly wet the surface ensuring that the surface remain visibly wet for 3 minutes
3. Remove all PPE and wash hands. Dispose of according to the specified protocol described previously in this protocol.

**E. Storage of Sterilized and Disinfected Materials:-**

1. 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.
2. Using a sterilized transfer forceps, remove all items from the sterilizer and dump onto a clean disinfected tray that contains a barrier. Allow the bags and items to completely cool and dry.
3. After the drying has been completed, place items into their appropriate disinfected container, covered with a barrier and store in the designated cabinets in clean area of clinic.
4. For the disinfected tray, cover with barrier and place in the designated clean area.
5. Storage shelves that hold the sterilized and disinfected items should be cleaned thoroughly and disinfected every week.

**F. Management of Biohazardous Waste:**

1. The Sharps container should be picked up when 3 quarters full or on a regularly scheduled time. Regular waste is picked up by a regulated waste haulers.
2. Biohazard waste should be picked up by a biohazardous waste management business.

**V. Housekeeping**

- A. Clean all housekeeping surfaces (e. g., floors, walls, sinks) with a detergent and water or a Cal—EPA registered, hospital—grade disinfectant.
- B. The following additional duties are performed during the specified time period:
  - 1. Once a week, the following housekeeping procedures are provided generally by the clinic's cleaning crew: the floors, walls, sinks, etc. are cleaned with a detergent and water.
  - 2. At the end of each clinical session, student will wipe up any spills on the floor in addition to the other protocol described previously in this protocol.
  - 3. At the end of each day, students will clean areas, such as sink, chair bottom, counter tops, etc. - with detergent and water.
  - 4. Once a week, students will clean all evacuation hoses and traps using appropriate materials and procedures specified by manufacturer.
  - 5. Re—check operatory for any remaining items to be processed.