Faculty of Dentistry
INFECTION CONTROL MANUAL



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DALHOUSIE UNIVERSITY

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FACULTY POLICIES:

The Faculty of Dentistry holds to the intent of and directives from the Canadian Dental Association, the Canadian Dental Hygienists Association and Dalhousie University with respect to the optimal treatment of patients.

Joint Infection Prevention and Control (IPAC) Standard of Practice

The major goal of an infection control program is to prevent the transfer of microorganisms between contaminated items and individuals.
All oral healthcare professionals must be responsible for infection, prevention, and control in oral health care facilities in N.S. OHCP must strive to efficiently create an environment which is as pathogen free as possible. These standards in the document are intended to protect all OHCP and their patients from infectious disease transmission. OHCP must strive to efficiently create an environment which is as pathogen free as possible. OHCP must apply this information as their standard of practice in a diligent, conscientious manner. (IPAC Standards, 2023)

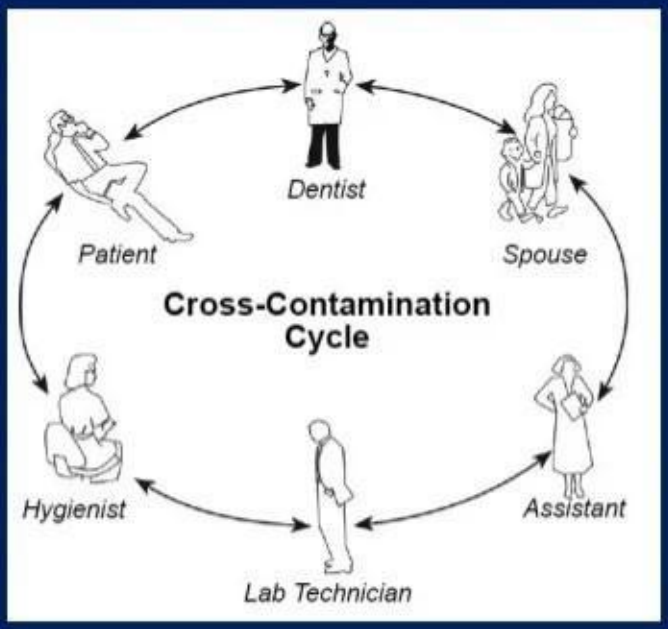
Infection Control Guidelines

This manual contains the infection control guidelines, used by the Faculty of Dentistry, Dalhousie University and are based on Provincial and National Standards.

Objectives:

1. Reduce the number of available pathogenic microbes to a level where the normal resistance mechanisms of the body can prevent infection.
2. Break the circle of infection and eliminate cross-contamination.
3. Treat every patient or instrument as a possible source of infectious disease transmission.
4. Protect patients and dental personnel from infection and its consequences.

Cross-contamination cycle



Professor Abdulwahab Al-kholani

The Spaulding Classification Table represents the reprocessing requirements based on the level of risk.

Spaulding Classification Table

Classification	Definition of Classification	Risk Level	Reprocessing Requirements	Example
Critical	penetrate soft tissue, contact bone and/or enter the blood stream	**HIGH**	sterilization	curettes, scalers, probes, pluggers
Semi - Critical	contact mucous membranes or non-intact skin but does not penetrate soft tissue, bone or enter the blood stream	**MODERATE**	sterilization or high level disinfection for heat sensitive items	mirrors, impression trays, mandrels etc
Non - Critical	contact with intact skin	**LOW**	intermediate to low level disinfection	blood pressure cuff
Enviornmental	clinical contact surfaces	**MODERATE**	intermediate to low level disinfection or barrier	chair controls, drawers, pens, keyboard, door knobs
	housekeeping surfaces	**LOW**	general cleaning	floors, walls

Adapted from the CDC Guide for Infection Control in the Dental Health Setting 2016

Infection Control Procedures

Before Patient Treatment	✓ Hand Hygiene ✓ Cubicle Preparation ✓ Cubicle Disinfection Sequence ✓ Dental Unit Water Lines ✓ Cubicle Barriers ✓ Instrument and Equipment Setup ✓ Review Medical History ✓ Respiratory and Cough Hygiene ✓ Perform Risk Assessment with Conditions ✓ If Applicable, Have Patient Remove Lipstick ✓ Perform intraoral and extraoral Exam (Head and neck)
During Patient Treatment	✓ Use of Personal Protective Equipment (PPE) ✓ Barrier Techniques ✓ Prevent Cross Contamination ✓ Sharps Safety ✓ Safe Handling of Dental Equipment, Supplies and Specimens) ✓ Dental Radiology ✓ Intraoral Photography ✓ Intraoral Microscope/Camera ✓ Handling biopsy specimens ✓ Laser/Electrosurgery Plumes and Surgical Smoke ✓ Management of Extracted Teeth ✓ Decontamination of Clinical Records, Materials and Devices ✓ Decontamination of Laboratory Equipment
After Patient Treatment	✓ Clean Up Procedure ✓ Care of Handpieces, Ultrasonic Scalers and Air-WaterSyringes ✓ Equipment Repair ✓ Decontamination of Operatory Surfaces and Equipment ✓ Decontamination of Dental Equipment, MaterialsSupplies ✓ Decontamination of Environmental Surfaces ✓ Decontamination of Laboratory Equipment ✓ Disposal of Waste Materials ✓ Management of Extracted Teeth ✓ Care of Used Protective Attire ✓ Medical Device Reprocessing

SECTION 1: BEFORE PATIENT TREATMENT:

HAND HYGIENE

Hand hygiene protects you and those receiving the care you provide. The simple act of cleaning your hands can prevent the spread of germs, including those that are resistant to antibiotics. Keeping the skin on your hands healthy and clean is a challenge that requires all healthcare personnel to be knowledgeable about how to care for their hands and when hands should be cleaned. (CDC, April 2023).



Why is hand hygiene so important?
Hand hygiene is the single most effective way to stop the spread of infection.
It is the most cost-effective health action to reduce disease.

When do we perform Hand Hygiene?

- Upon entry to a clinical space or MDRA
- Before and after patient treatment
- Before and after glove use
- After a glove has become torn
- After touching inanimate objects
- Before and after using the washroom
- Before and after eating
- Before leaving clinical space or MDRA
- After extra oral patient assessment
- Before intra oral patient care

When do we wash our hands with soap and water vs using ABHR (alcohol-based hand rub)? <u>ABHR is the preferred way to clean our hands when they are *not visibly soiled*.</u>
<u>(Reduces risk of skin breakdown and provides a higher level of asepsis).</u>
Hand washing with soap and water must be performed at the beginning and end of each clinical session, and when hands are visibly soiled; perform hand hygiene using soap and water at a designated hand washing sink.

When do Hand Hygiene procedures change?
When the level of risk changes.
For example: when working in Surgery, hand hygiene practices include additional steps and are followed up with an antimicrobial hand rub (Avaguard). See below for instructions.

Other components of effective Hand Hygiene:

- Moisturizing to prevent dermatitis or skin breakdown.
- Covering/treating open sores or wounds.
- Keeping nails short and clean, free of nail polish or other enhancements. (nails must be kept ¼ inch – must not show past the end of the finger)
- Watches and/or other wrist jewelry should not be worn.
- Nail cleaners may be used before performing HH (use under running water).

<u>Alcohol-Based Hand Rub Technique</u>

Do not use this method in the presence of skin breakdown, when hands are visibly soiled, after using the washroom, blowing one's nose, and before and after eating.

How to Handrub?

RUB HANDS FOR HAND HYGIENE! WASH HANDS WHEN VISIBLY SOILED

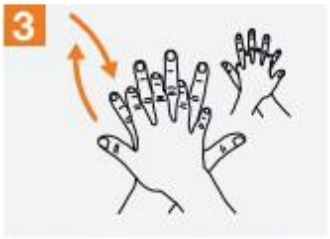
Duration of the entire procedure: 20-30 seconds



Apply a palmful of the product in a cupped hand, covering all surfaces;



Rub hands palm to palm;



Right palm over left dorsum with interlaced fingers and vice versa;



Palm to palm with fingers interlaced;



Backs of fingers to opposing palms with fingers interlocked;



Rotational rubbing of left thumb clasped in right palm and vice versa;



Rotational rubbing, backwards and forwards with clasped fingers of right hand in left palm and vice versa;



Once dry, your hands are safe.

World Health Organization | Patient Safety | SAVE LIVES Clean Your Hands

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WHO acknowledges the Wadsuo Universitaire de Genève (HUG), in particular the members of the Infection Control Programme, for their active participation in developing this material.

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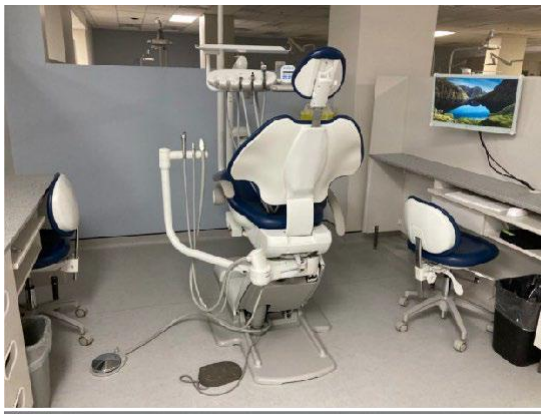
Hand Hygiene – Surgical Asepsis Protocol

Perform before any surgical procedures:

- Remove all jewelry.
- Perform hand hygiene and don PPE (e.g., mask, shield, yellow gown, protective eye wear) required for the task.
- Gather all supplies needed for the procedure, including sterile gloves.
- Remove sterile gloves from package and lay on counter, ready for wear.
- Clean area under fingernail tips, using a disposable nail cleaner, under running water.
- Using soap and water, perform hand hygiene up to 2 inches above the wrist.
- Rinse and dry hands and arms thoroughly.
- Dispense 2-3 pumps of chlorhexidine/alcohol surgical antiseptic into the palm of 1 hand.
- Dip the fingers of the opposite hand into the preparation and work the product under the nails.
- Apply the remaining product on hands and arms up to 2 inches above the wrist using the same technique used for alcohol-based hand rub.
- Allow hands to air dry before donning sterile gloves.

Definition from 2003 CDC Dental Guidelines*: Oral surgical procedures involve the incision, excision, or reflection of tissue that exposes normally sterile areas of the oral cavity. Examples include biopsy, periodontal surgery, apical surgery, implant surgery and surgical extractions of teeth (e.g., removal of erupted or nonerupted tooth requiring elevation of mucoperiosteal flap, removal of bone or section of tooth and suturing if needed)****.***

Cubicle Preparation



Always clean and disinfect the cubicle thoroughly, before treating the first patient of the day and after each patient, to prevent cross-contamination. Cleaning removes visible soil and disinfection kills or destroys all disease-producing micro-organisms except spores. (CDC, 2003)

PPE is to be worn while cleaning and disinfecting.
Biofilm is a layer of bacteria that grows within the water bottles, the lumens of the water lines and suction lines. To remove it, the Dental Unit Water Line (DUWL) and the suction lines must be flushed each day. An ICX tablet is used to treat the RO water that is used in the cubicle water bottles used for patient treatment. A white lab jacket can be worn when cleaning and disinfecting your cubicle prior to patient treatment.

SEE APPENDIX A: Boiled Water Advisory

Closed Water Systems

- Only water from a Reverse Osmosis (RO) system may be used to fill the water bottle of closed systems in the clinic cubicles (DUWL).
- Do not top-up water bottles.
- Completely empty water bottles before filling.
- To fill a cubicle water bottle, add (1) ICX tablet to an **empty** bottle without touching tablet. ICX tablets are used to inhibit bacterial growth and biofilm. Fill RO water to the collar of the bottle, wait 2 minutes for tablet to dissolve and reattach to dental unit.
- RO treated water can be safely used for patient rinse.

Suction Lines Decontamination

- Decontaminate high-volume and low-volume suction lines after each use and the beginning of each day. Add 1 pump of NEUTRAVAC concentrate to 1 liter of water (full beaker). **Tap water may be used.**
- Draw solution through evacuation line. Allow 10-minute contact time. Repeat process for each line.

Flushing Dental Unit Water Line

- Flush all water lines at the beginning of the day for at least **3 minutes** to remove biofilm.

- When flushing lines, wear protective attire (gloves, mask, *protective eyewear and white lab jacket) and use a 1L beaker to collect the water.
- The operator must flush each dental unit water line for 30 seconds between patients.
- After flushing is complete, discard water into sink.
- Rinse and dry beaker. Disinfect beaker with moist CaviWipe before returning to disinfection station.

Cubicle Disinfection Sequence

Prior to disinfection, any visibly soiled surface must be cleaned with a CaviWipe. The cubicle should be disinfected from the surface considered to be the cleanest to the surface considered to be the most soiled, to not cross contaminate.

- Perform a visible check of all cubicle surfaces.
- Clean soiled areas first with a moist CaviWipe.
- Dispense a new moist CaviWipe and disinfect cubicle surfaces from least soiled to most soiled surface areas.
- Perform the following **sequence:**
    - Computer Screen, Keyboard and Mouse.
    - Operator and Assistant Stools (*arm rests, headrest, back and seat areas*).
    - Bracket Table and Handle(s), Touch Pad.
    - Countertops.
    - Evacuation Hoses, Air/Water Syringe, Hangers/Arm
    - Handpiece Tubing, Air/Water Syringe, Hangers, and Control Unit surface.
    - Dental Light and Handles.

Allow 2 minutes contact time, or appropriate kill time for solution used. Allow surfaces to air dry before seating patient.

Cubicle Barriers

Barriers are used to cover a touch surface when it is not practical to thoroughly disinfect the surface afterward. These barriers are discarded after each use and in a manner so as not to cross contaminate the environment.

After cubicle disinfection is complete and surfaces are dry, apply the following plastic barriers:

- Air/Water Syringe Tip (insert tip and push tip through hole in barrier to cover syringe).
- Operator Handle(s) (cover button).

Sterile Instrument Set-up

- Collect all necessary equipment and materials prior to beginning treatment.
- Consumable Supplies: bring only items necessary for treatment into the operatory. Any unused, single use items brought into the treatment area where the patient was present,

must be discarded. Any unused reusable items must be reprocessed.

- Sterile Supplies should remain *unopened* until the patient is seated in the dental chair.
- Prior to opening, perform visual inspection on sterile packaging to ensure integrity has not been compromised. (e.g., ripped, torn, damp, soiled)
- Seat the patient.
- Open sterile trays using aseptic technique, protecting the sterility of the tray. The blue wrap is left in place and acts as a sterile field under the trays.
- Open instrument packages from the base of the package (non-heat-sealed end) and immediately discard steri-peel packaging into the garbage.
- Verify the chemical integrator is present and indicates sterility. Do not use set up if an integrator **is not present or has not passed.**
- Handpieces**-** Assemble sterilized handpiece and attachments.
- Ultrasonic Scalers**-** Attach sterilized handpiece and insert. Run for 3 minutes with Handpiece attached to flush water lines.

Review Medical History

Obtain a thorough medical history at the initial examination and review during recall visits. Include specific questions about (ADA+C, 2010).

- New cough or shortness of breath.
- New fever or chills in the last 24 hours.
- New onset diarrhea and/or vomiting.
- New undiagnosed rash, lesion, or break in skin.
- Recent exposure to communicable infectious disease (e.g., measles, chicken pox, or tuberculosis).
- History of joint prostheses procedures.
- History of antimicrobial therapy.
- Family history of prion disease, or symptoms that may be indicative of CJD, such as sudden onset dementia.
- Recent travel to areas where endemic diseases are present.
- Immunization history.
- Risk assessment for antibiotic prophylaxis

SEE APPENDIX S: Infective Endocarditis

Respiratory / Cough Hygiene

To prevent the transmission of respiratory infections (influenza, COVID 19, tuberculosis etc.) the Centers for Disease Control has drafted measures to be implemented by health care facilities, at the first point of patient contact.

Screen all patients for symptoms of a respiratory infection when they arrive at the clinic for their appointment.

Practice Respiratory Hygiene/Cough Etiquette.

Some examples:

- Ensure access to tissues and hand hygiene stations.
- Cover nose or mouth when coughing or sneezing using a sleeve or tissue, dispose of tissue and perform hand hygiene.

Masking and Separation of Persons with Respiratory Symptoms:

During periods of increased respiratory infection in the community, offer masks to persons who are coughing. Procedure masks or surgical masks may be used to contain respiratory secretions. N95 masks are available through Dental Stores and Fit Testing is available through the Occupational Health and Safety Office on Dalhousie Campus.

Practicing Droplet Precautions:

Wear a procedure or surgical mask when examining patients. When treating patients with symptoms of a respiratory illness, be sure to wear additional PPE (appropriate for the task, e.g., face shield, yellow gown, N95 mask).

Section 2: DURING PATIENT TREATMENT

Personal Protective Equipment (PPE) and Barrier Techniques

Examination Gloves

- Always wear clean gloves when performing oral assessments and procedures.
- If integrity of gloves is compromised (cross contaminated, ripped, torn, punctured, after 40 minutes of wear): Remove, discard immediately, perform hand hygiene and don new gloves.

SEE APPENDIX T

Surgical Gloves

- Used during surgical procedures (e.g., extractions, implants, perio).
- Select appropriate size gloves and follow steps 1 and 2 below.
- Perform hand hygiene.
- Follow steps 3-6.

SEE APPENDIX U

Masks

- All Health Care Providers must wear a procedure mask during patient treatment.
- Face masks provide protection from spatter of blood and saliva.
- Face masks must cover and contain all facial hair.
- Masks should not be placed on forehead or worn under the chin.
- Change the mask if it gets wet or soiled.
- Remove mask by the ties or elastic only.
- Laser-approved masks are to be worn during the use of the laser or electrosurgery units.
- N95 Respirators are to be worn to treat patients with severe respiratory infections.

Protective Eyewear

- Eyewear with side shields OR a face shield is used for any aerosol generating procedure.
- Protective eyewear must be worn by the patient, the operator, and the assistant during the treatment.
- The patient should wear protective orange glasses during the use of the curing light. Operator and Assistants should ensure their eyes are protected and use a disposable plastic orange shield on the curing lights.

- **Only** Laser approved safety glasses are to be worn when using a laser. Each laser has its own specific wavelength which determines the type of safety glasses.
- All protective eyewear and face shields must be cleaned, disinfected, dried, and safely stored between use.

Footwear

- Must be dedicated for Clinic and support safety and infection prevention.
- Must be clean.
- Must be closed toes and closed healed.
- Must provide good support.
- Must be slip resistant.
- Must help protect against sharps injuries and dropped instruments.

SEE APPENDIX V

Eyewash Stations

Be sure to familiarize yourself with the locations of eyewash stations throughout the Faculty of Dentistry.
Immediately flush your eyes for at least 15 minutes, keep the eyes open and rotate the eyeballs in all directions to remove contamination from around the eyes. Refer to MSDS and consider contacting Poison Control 1-902-470-8161 for further instructions.

Scrubs/Warm-up Coat/Headwear (head scarf, scrub cap, turban)

- You must change into and out of scrubs/warm-up coat/headwear onsite; items are not to be worn outside of the faculty building other than to attend dental related classes and clinics.
- Scrubs must be worn to enter a patient treatment area.
- Scrubs pants must cover ankles.
- Scrub caps are encouraged but not mandated.

Reusable Yellow Gowns

- Protects scrubs during aerosol generating procedures.
- Are to be worn for all treatment procedures except for examinations (patient consults, new patient exams, recall exams).
- Must don a yellow gown if you are moving from an examination to patient treatment.
- Perform visible inspection of the yellow gown for damage prior to donning.

Disposable Blue Gowns

- Worn when performing cubicle cleaning/disinfection duties after patient treatment.

Clinic Jackets/Lab Coats

- Long sleeve, cuffed clinic jackets/lab coats are worn over scrubs when performing patient examinations (consults, new patient exams, recall exams).
- Worn when cleaning and disinfecting cubicle/flushing DUWL's prior to patient treatment.

- Not to be worn outside of the clinic with the exception of meeting/greeting patient in the patient waiting area.
- Name tags must be present on clinic jackets/lab coats when meeting/greeting patients in the patient waiting area.

Jewelry:

- Can harbor bacteria, interfere with hand hygiene and compromise PPE.
- Rings can puncture or tear gloves.
- Bracelets/watches/ can trap moisture and trap contaminants against the skin.
- Earrings and body piercings must be kept tight to the body, should not impede patient care and should not present risk of entanglement. Dangling earrings or hoops must not be worn in clinic. Piercings must be kept clean and must not interfere with PPE.

Lipstick Removal:

- If the patient is wearing lipstick it must be removed.

Cross Contamination

- Limit items brought into the treatment area.
- Prepare in advance for the procedure by obtaining all necessary supplies and equipment.
- Avoid touching unprotected switches, handles or other equipment with gloves.
- Remove gloves before touching drawers or cabinet doors and perform hand hygiene.
- Patient charts must remain outside cubicle area during patient treatment.
- Complete chart entries after patient is dismissed and end user responsibilities are completed. (e.g. cubicle disinfection, hand hygiene).
- Remind patients not to close their lips around the saliva ejector, especially when the high-volume evacuator is being used.
- Instruments are no longer sterile if dropped on the floor, or if the outer wrap is wet or torn.
- Do not use contaminated instruments on patients. They are to be cleaned and sterilized.

Aerosols

- An antiseptic oral rinse (a pre-procedural rinse-0.12% Chlorhexidine Gluconate) must be used prior to patient treatment to reduce the number of microorganisms in dental aerosols.
- During Aerosol Generating Procedures (AGP), yellow gowns and face shields or protective eyewear with side shields must be worn during patient treatment.
- Perform visible inspection of the yellow gown for damage prior to donning. Use high-volume evacuation, proper patient positioning and dental dam whenever appropriate.
- High Volume evacuation must be used during ultrasonic scaling.
- When using the three-way syringe, use water before air.

Handling of Sharp Instruments and Needles

Used needles, scalpel blades and other sharp instruments are considered potentially infective and are to be handled carefully to prevent unintentional injuries (CDC, 2003).

Needles

- DO NOT recap by hand; use scoop method to recap.
- DO NOT bend, break, or otherwise manipulate.
- Remove by using a hemostat, not your hands.

Scalpel Blades

- Remove blades from handles using blade remover or hemostat. After use, all blade handles should NOT be returned to the instrument trays. Handles should be placed in the plastic container provided on the soiled case cart.

Dispose of used needles, scalpel blades, and other sharp items in a sharps container.

SEE APPENDIX F

During Patient Anesthesia

Since a patient may require multiple injections from a single syringe, the following technique can be used to minimize the likelihood of injury:

- Once syringe packaging is removed, place the needle and dental syringe within the sterile field.
- Use the one-hand scoop method to recap syringe: Glide the needle into the plastic tip. Once the needle is completely covered, the other hand is used to fasten the cap on the needle hub.

Exposure Prone Procedures

Avoid the simultaneous presence of the operator's fingers and a needle, or other sharp instruments, in a poorly visualized or highly confined anatomic site (CDC, 1991).

- Ask for assistance.
- Use an instrument for retraction.
- Position patient for greater visibility/access.

Decontamination of Clinical Records, Materials and Devices

Impressions and prostheses that have been inserted in a patient's mouth are contaminated with microorganisms. These can be transmitted to dental personnel either by direct contact or as aerosols produced during polishing and grinding procedures (Merchant, 1996).

In the event that a denture is inadvertently swapped with another patient prosthetic, it is considered an "incident" and must be promptly reported to Clinical Affairs and additionally, an Accident/Incident report form must be filled out.

Report forms can be found on the Dalhousie website: https://dalu.sharepoint.com/sites/ehs/SitePages/accident-incident-reporting.aspx

Preparing Impressions & Interocclusal Records

- Put on protective attire (gloves, mask, and eyewear).
- Use a clean lab pan, articulator and facebow for each patient.
- Use a sterile metal impression tray, a disposable plastic tray, or a new custom tray.
- Use a clean mixing bowl and a sterile spatula, disposable mixing pad.

Cleaning & Disinfection of Impressions & Interocclusal Records Prior to Lab Work

- Don clean gloves
- Remove any cotton rolls embedded in the impression material. Rinse thoroughly with water, gently shake to remove excess water.
- Wet with disinfectant solution to coat all surfaces.
- Place in sealed plastic bag.
- **After 2 minutes** contact time or appropriate kill time for solution used, rinse thoroughly to remove disinfectant.

Orthodontic Appliances, Prostheses & Prosthodontic Materials- See appendix

Prior to lab adjustments (wear gloves)

- Rinse with water to remove blood and gross debris.
- Wet with disinfectant to coat all surfaces.
- Place in sealed plastic bag.
- After 3 minutes contact time or appropriate kill time for solution used, rinse thoroughly to remove disinfectant.

Adjustments (Clinic Gloves, Lab no gloves)

Grinding

- Use sterilized acrylic burs and handpiece for adjusting prosthesis.
- Rinse the prosthesis thoroughly before inserting it in the patient's mouth.

Polishing

- Do not wear gloves while using the lathe.
- Use a new rag wheel for each case.
- Use a unit dose of pumice, wet with water to make a slurry.
- Polish prostheses.
- Discard rag wheel and remaining pumice.
- Rinse the prosthesis thoroughly before inserting it into the patient's mouth.

Prior to Use of Steam Cleaner and Sandblaster:

- Rinse and disinfect item.

Casts (Disinfect after contact with clinical records / prostheses. Wear gloves).

- Wet with disinfectant to coat all surfaces.
- Place in sealed plastic bag.
- After 3 minutes contact time or appropriate kill time for solution used, allow to air dry.

Section 3: AFTER PATIENT TREATMENT

End-User Clean Up

Clinical contact surfaces can be directly contaminated from patient materials either by direct spray or spatter generated during dental procedures or by contact with the Dental Health Care Personnel's gloved hands. These surfaces can subsequently contaminate other instruments, devices, hands, or gloves. Examples of such surfaces include light handles, switches, radiographic equipment, chairside computers, dental materials, drawer handles, countertops, pens, telephones, and doorknobs (CDC, 2003).

Once patient treatment is completed, remove contaminated attire (gloves, mask, eyewear, and face shield) perform hand hygiene and dismiss the patient. Patient chart does not enter cubicle until cubicle is disinfected.

- Don protective attire (yellow gown, gloves, mask, and protective eyewear).
- Remove all sharps using a hemostat and remove all blades using a blade remover.
- Place needles, syringe tips, glass anesthetic cartridge and sutures into sharps container.
- Discard damaged, dull, and single use burs and endo files into sharps container.
- If there is gauze saturated with blood, place it in a separate plastic bag and tie off, then place next to tray for proper disposal.
- Bundle all disposable items (e.g., suction tips, air–water syringe tips, barriers, integrators) in blue wrap and discard into cubicle garbage can and tie bag closed.
- Flush unit by running for 30 seconds, discharge water into sink or evacuation system.
- Clean and disinfect syringe head, water line and bracket holder with CaviWipes.
- Allow appropriate kill time for disinfectant solution used.
- Run the HV suction (with tubing and suction tip attached) and the LV suction using 1 pump of MicroVac solution in 1L H2O.
- Return instruments to cassette by placing securely into rubber inserts. Open hinged instruments.
- Apply pre-cleaning solution (PreKlenz) to soiled instruments.
- Attach to tray lid with clips if possible. Close lid.
- Ensure instruments are contained within tray. Lock tray closed.
- Return trays with items to be reprocessed to the soiled Case Cart.
- Sort items into correct baskets and containers.
- Clean and disinfect equipment (e.g., ultrasonic unit, pulp testing unit, endo rotary unit) by wiping surfaces of console, power cord, handpiece cable, any applicable supply lines and foot controls using Caviwipes and return to DA cart.
- Disinfect face shield and place on hook.

Cubicle Disinfection Sequence

Prior to disinfection, any visibly soiled surface should be cleaned with a CaviWipe to remove

gross debris. Begin disinfecting cubicle from the surface considered most clean to the surface most soiled, as to not cross contaminate.

Step 1: Clean

- Perform visible check of all cubicle surfaces.
- Using a CaviWipe, remove any gross debris.

Step 2: Disinfect in the following sequence:

- Computer Screen, Keyboard and Mouse and Signature PAD
- Operator and Assistant Stools (*arm rests, headrest, back and seat areas).*
- Bracket Table and Handle, Touch Pad.
- Countertops.
- Evacuation Hoses, Air/Water Syringe, Hangers/Arm.
- Handpiece Tubing, Air/Water Syringe, Hangers, and Control Unit Surface.
- Dental Light and Handles.

Allow appropriate kill time for disinfectant. and for surfaces to air dry before seating patient. Ensure disinfectant canister is properly sealed.

Care of Handpieces, Ultrasonic Scalers and Air-Water Syringes

High Speed Handpieces

Prepare high speed handpieces for sterilization by completing the following actions:

- Wear protective attire (gloves, mask, eyewear).
- Flush handpiece for 30 seconds, discharge water into sink or evacuation system.
- Remove bur, discard if dull, damaged, or single use.
- Return all handpiece components to cassette.
- If visibly soiled, spray with pre-cleaning solution (PreKlenz)
- Close lid and lock.
- Allow appropriate kill time for disinfectant solution.

Slow Speed Handpieces

Prepare slow speed handpiece (i.e., latch and friction grip contra angles) for sterilization by completing the following actions:

- Wear protective attire (gloves, mask, eyewear).
- Run handpiece for 30 seconds.
- Remove bur and discard if dull, damaged, or single use.
- Return all HP components to cassette.
- Spray with pre-cleaning solution (PreKlenz) if visibly soiled.

Prior to returning used instruments to MDR or setting them aside for pick-up by staff, follow these steps, to prepare instruments for cleaning and to protect staff from injury.
Remove contaminated attire (gloves, masks, protective eyewear and face shield), perform hand hygiene , complete chart entries, dismiss the patient.

Extracted teeth: See Appendix

Ultrasonic Device (Cavitron and Piezos)

- Wear protective attire (gloves, mask, protective eyewear).
- Flush handpiece for 30 seconds, discharge water into sink or evacuation system.
- Remove ultrasonic scaling insert and handpiece sleeve.
- Clean and disinfect surfaces of console, power cord, handpiece cable, water supply line and foot control using disinfectant wipes.
- Place power cord and foot control in separate plastic bags.
- Return all components to container and secure lid.

Equipment Repair

Prior to requesting an equipment technician to carry out a repair, the item must be cleaned and disinfected. Remove sharps and gross debris from the operatory so that the technician can work safely.

Dental Equipment

Dental equipment (e.g., amalgamator, curing light) that becomes contaminated and cannot be sterilized is cleaned and disinfected between patients.

- Wear protective attire (gloves, mask, eyewear)
- Using disinfectant wipes, clean exterior surfaces and controls of each piece of equipment
- Use a separate wipe for each item
- Allow for appropriate kill time for disinfectant solution.

If visible blood is observed on a piece of equipment, repeat the application of disinfectant.

Shared Patient Equipment

Commonly shared patient equipment (e.g., BP cuff, stethoscope, pulse-oximeter, wheelchair) that has direct contact with a patient's skin, must be disinfected after each use.

Consumable Supplies

For consumables in bulk containers, remove the amount to be used during the appointment, leaving the bulk container in the storage area. Do not bring the bulk container to your cubicle (e.g., dental floss, plaque disclosing solution).

Unused Consumables and Sterile Items:

Items placed in an operatory when a patient is present becomes contaminated. If it is not possible to clean, sterilize, or disinfect items (e.g. cotton rolls, suction tips, evacuation tips, air/water tip, cotton applicators), they are to be discarded.

If a packaged, consumable item has not been used and the integrity has not been compromised (if damaged or seal is broken) and is wipeable, item can be disinfected and restocked.

1. Sterile items / unopen + patient = REPROCESS
   - All unused reusable items MUST be reprocessed if the patient was present (whether or not treatment was provided).

2. Sterile items and consumables / unopen + no patient = RESTOCK
   - All unused sterile items and consumables may be restocked if the patient was not present.

3. Consumable / unused + patient = DISCARD
   - All unused consumables that were in the presence of a patient MUST be discarded.

Decontamination of Laboratory Equipment

Heat tolerant, contaminated laboratory prostheses and material are cleaned and sterilized before being used on another patient (CDC 2003).

- Metal impression trays
- Burs
- Lab knives
- Facebow forks
- Handpieces and instruments
- Polishing points
- Water bath basins

Items that become contaminated and cannot be sterilized are cleaned and disinfected between patients.

- Articulators
- Lathes

- Case pans
- Pressure pots
- Water baths
- Shade guide
- Rubber mixing bowls
- Torch

Contaminated materials and single-use items used intra-orally that cannot be cleaned, sterilized or disinfected are to be discarded.

- Plastic impression trays
- Custom trays
- Disks and brushes
- Brushes, rag wheels
- Waxes
- Polishing wheels

SEE APPENDIX X

Disposal of Waste Materials

Providing dental care creates waste, which must be handled safely and in accordance with local, provincial, and federal regulations. (Dalhousie University, 2010).

Sharps

Sharps are items capable of causing punctures or cuts.

- Used needles, scalpel blades and other sharps are to be placed in a puncture-resistant container at the point of use.
- Universal blade removers are available for blade removal and shall be used whenever possible in place of a hemostat.
- When the container is ¾ full, seal the container with the attached lid, and transport to the Hazardous Waste Holding area.
- The Dalhousie Environmental Health and Safety Office will collect the sharps containers for incineration.

Fluids

If blood and/or body fluid waste from surgical procedures are collected in single-use suction liners, the liquid waste must be disinfected prior to pouring into the sanitary sewer.

- Wear protective attire (gloves, mask, eyewear).
- Prepare sodium hypochlorite disinfectant solution and run thorough the suction line, into the liner.
- Discard suction tubing in plastic bag, tie closed, and place in garbage.
- Let solution stand in the suction container for 3 minutes.
- Carefully open pour spout and discard solution into sanitary sewer.
- Rinse liner with water and place in garbage bag. Tie bag closed.
- Place a new tubing and suction liner in the container.
- If HV/Suction on operator's table is used for procedure, they are flushed with 10ml of MicroVac (1 pump) in 1000ml of H2O.

Management of Bio-Hazardous Waste (Blood-Soaked Materials)

Blood-Soaked Materials:

- collect in a 11b bag and dispose of in the red biohazardous collection bins located in each level of clinic.

Corrosive or Flammable Fluids:

- or those that contain toxic components may **NOT** be poured into the sanitary sewer. For advice contact the Dalhousie Environmental Health and Safety Office.

- Wash container and attachments with detergent and water. Allow to air dry.
- Replace container and attachments in vacuum unit.

Solids

Solid waste contaminated with blood or body fluids are to be placed in sealed, sturdy, impervious bags to minimize human contact.

- Wear protective attire (gloves, mask, eyewear).
- Used, disposable items (dental dams, cotton rolls, gauze, suction tip, etc.) are to be placed in a plastic bag, tied closed, and placed in cubicle waste container.
- No liquids are to be placed in cubicle waste container.
- Sharps may not be mixed with clinic waste.

APPENDIX A: Management of Extracted Teeth

Patient Request for Extracted Teeth

- All teeth removed within Faculty of Dentistry Clinics become the property of Dalhousie Faculty of Dentistry and will not be given to patients.
- Pediatric patients will receive a certificate entitling them to a visit from the Tooth Fairy.
- The retained teeth will be used for pre-clinical teaching/research or will be discarded as Biological Waste.

Safe Handling of Extracted Teeth for Pre-Clinical Teaching / Research

- Extracted teeth that contain amalgam restorations are not suitable for pre-clinical teaching / research.
- Use PPE when handling extracted teeth, as they area source of potentially infectious material.
- Maintain extracted teeth in a hydrated state. Clean teeth of blood and gross debris with detergent and water.
- Immerse teeth in a solution of 1:10 household bleach for 30 minutes, before using for pre-clinical teaching/research.
- Store extracted teeth in a jar with a secure lid to prevent leaking. Attach a label to identify contents. Bring jar of contaminated teeth to pre-clinical Technician.
- Clean work surfaces and decontaminate with a surface disinfectant.

Extracted Teeth from Outside Dentists and Satellite Clinics

- Only extracted teeth free of amalgam restorations are suitable for pre-clinical teaching/research.
- Extracted teeth are to be maintained in a hydrated state. They are to be cleaned with detergent and water to remove blood and gross debris, prior to providing to Dalhousie Faculty of Dentistry.
- Teeth are to be decontaminated by immersion in a solution of 1:10 household bleach for 30 minutes before offering to Dalhousie Faculty of Dentistry.
- Teeth are to be rinsed of the household bleach solution and covered with tap water, prior to transporting to Dalhousie Faculty of Dentistry.
- Extracted teeth are to be stored in a jar with a secure lid to prevent leaking. A label identifying contents and source is to be attached. The jar of decontaminated teeth is to be brought directly to the pre-clinical Technician.

Disposal of Extracted Teeth with Amalgam Restorations

- Extracted teeth with amalgam restorations cannot be discarded in the garbage. Collect in a 16 oz. jar labeled **"Mercury Waste: Extracted Teeth with Amalgam Restorations"** and close lid.
- Extracted teeth jars are to be transported to the Waste Collection area on level 2 for collection and recycled by the Environmental Health & Safety Office.

APPENDIX B: Immunizations for Health Care Workers

Tetanus and Diphtheria Vaccine

- Given as Td and pertussis given as Tdap.
- Booster schedule – Td every 10 years; 1 dose should begiven as Tdap, if not previously given in adulthood.

Measles, Mumps, and Rubella Vaccine

- Given as MMR.
- One dose for adults born in or after 1970 without a history of measles or those individuals without evidence of immunity to rubella or mumps.
- Second dose is required for healthcare workers.
- MMR should also be given to all persons of either sex who may expose pregnant women to rubella through face–to– face contact.

Polio Vaccine

- Primary immunization with inactivated poliomyelitis vaccine (IPV) is indicated for all health care works who may be exposed to poliovirus and who have not had a primary course of poliovirus vaccine (OPV or IPV).
- Persons who have previously been given less than a full primary course of OPV or IPV should have the series completed with IPV regardless of the interval since the last dose.

Hepatitis B Vaccine

- A series of three injections is given at 0, 1, and 6 months.
- An accelerated Hepatitis A/B vaccine is also available. It is given at 7, 14, and 21 days (about 3 weeks) followed by another injection at 12 months.
- Antibody testing to determine serologic response is performed 1-2 months after completion of the vaccine series.
- If vaccination did not result in sufficient anti-HBs (>10mIU/mL) a second series is administered.
- Booster vaccination against Hepatitis B is not necessary if one has developed adequate antibodies to Hepatitis B surface antigen (anti-HBs). Hepatitis B Immunization Reference Guide for Health Care Providers hepatitis_b_reference guide_web_e[1].pdf.

Influenza Vaccine

- Every autumn health care workers should receive the influenza vaccine, using current recommended vaccine formulation.

Varicella Vaccine

- Two doses at least 4 weeks apart is given to susceptible adults without sero negativity.

Tuberculin Skin Test (TST) (Canadian Tuberculosis Standards, 2022)

- An Interferon-Gamma Release Assay (IGRA) blood test ***or*** initial 2 step TST needs to be performed on health care workers to reduce the chance of inaccurate results. If either test is positive, a chest x-ray and medical clearance is required.

  Initial 2 step TST Test:

  - After the first test, a second test is given a minimum of 1 to 4 weeks later.
  - Both tests are read and recorded at 48 to 72 hours (about 3 days).
  - If the second test result is 10 mm or more, a referral is made for medical evaluation and chest radiography.
  - The 2 step TST only needs to be done once if properly documented. Subsequent TST can be 1 step, regardless of how long it has been since the last TST.

APPENDIX C: Management of Patient with Herpetic Lesions

All stages of recurrent herpetic lesions are potentially contagious, including the prodromal and immediate post-lesion stage[1,2]. Lesions in the vesicular stage, however, are the most contagious[1,2]. Therefore, the guidelines that follow are based on the changing degree of infectivity of the lesions[1,2,3,4,5,6,7,8]. Patients who have a history of recurrent herpetic lesions should be advised to contact their oral health care provider if they have a herpetic lesion present before their appointment (Cleghorn, 2005).. Rescheduling of the appointment prevents the inconvenience of dismissing the patient should they arrive to their appointment with an active lesion[5].

Confirm diagnosis of herpetic lesion with dentist prior to any treatment. Location of the recurrent herpetic lesions extra-orally could include the lips nasolabial folds. Intra-orally they are almost always found on the gingival or hard palate.

Appendix C: Management of Patients with Herpetic Lesions

Stage of Lesion Development	Infectivity	Dental and Dental Hygiene Treatment*
PRODROMAL STAGE	• patient is aware lesion will appear in a few hours. • infectivity+	• no treatment restrictions. • modify appointment schedule to avoid lesion in the vesicular stage.
VESICULAR STAGE	• most infectious stage • small gray or white vesicle • infectivity++++	• treatment should be limited to relief of pain / • infection. • no elective treatment should be performed**
ULCERATIVE STAGE	• infectious stage • small gray or white vesicle • infectivity+++	• treatment should be limited to relief of pain / infection. • no elective treatment should be performed**
CRUSTING STAGE	• infectivity++ • less infectious than vesicular stage	• treatment should be limited to procedures that do not produce aerosols or splatter. (no Cavitron or gross scaling or polishing, care in removing rubber dam). • no treatment restrictions.
IMMEDIATE POST-LESION STAGE	• infectivity+	• *all patients are to be treated using normal barrier protections (gloves, mask, patient/operator glasses) or universal precautions. **exceptions depend on: 1. agreement between supervising faculty, student, and patient, 2. nature of procedure

It may be reasonable to perform some procedures under Rubber Dam if aerosols are minimized and the is comfortable during treatment.

- Cover lesion with petroleum jelly prior to treating patient. Take care not to rub the lesion as this can result in spreading the lesion locally.
- Ensure that the herpetic lesion is not a marker for any underlying systemic disorder, that the patient understands to apply any medications that may be prescribed, that the patient understands how to avoid inoculation and cross-infections.
- **Oral Health Care Workers with Herpetic Whitlow**

Due to the highly infectious nature of an active lesion, oral health care providers should be removed from clinical activity during this time[7]. An outbreak of HSV-1 gingivostomatitis occurred over a 4-day period where 20 of 46 patients seeing a dental hygienist were infected[8]. Although this occurred before the routine use of latex gloves, the highly infectious nature of this condition dictates this prudent course of action.

APPENDIX D: PROTOCOL FOR NEEDLESTICK EXPOSURE

What to do when you have an exposure to blood or body fluids by laceration, puncture wound, splatter, or splash to the:

Mucous Membrane | **Eyes** | **Non-Intact Skin**

↓

Stop Procedure

↓

First Aid
Wash the injured or exposed area well with soap and water
Apply antiseptic (if available)
Allow immediate bleeding of the wound
Eyes: flush with water at an eyewash station for at least 15 minutes
Mucous Membrane Exposure (mouth or nose) or **Skin Exposure:** Fush with copious amounts of water

↓

Report injury to Registered Nurse
If RN is unavailable, go to one of:
-Associate Dean, Clinical Affairs
-Assistant Dean, Patient Care
-Director, GPR
-Director, Grad Perio Program
-An Oral Surgeon
-Clinical Care Services

↓

RN or designate will immediately complete:
Assessment of type of injury (Appendix A)
and
Risk Assessment of Source (Appendix B)

and

RN or designate will complete with 24 hours:
Incident Report (Appendix C)
RN may contact SAFE for guidance
902-473-7233

RN or designate will call:

Low risk exposure:
Blood Clinic Scheduling 902-473-6421, for an urgent appt due to needlestick (appt will be either at VG or HI)

or

High risk exposure:
Halifax Infirmary Emerg Dept: 902-473-3383. Advise that an injury to student or employee has occurred. Send source and injured person, and complete Appendices A and B as soon as possible (within 1-2 hours of injury)

If source pt has left the clinic, RN is to contact the patient, review Risk Assessment of source and request the pt has bloodwork completed. Blood requisition (Appendix D) to be faxed or emailed to the ER.

- If the injury occurs at **off-site clinics,** the supervising Dentist or Dental Hygiene Instructor must undertake these actions. Call the RN if there are any questions or concerns.

PROTOCOL FOR NEEDLESTICK EXPOSURE (continued)

Appendix A
Assessment of Type of Injury
To be completed by Injured Student/Employee with RN

Assessment of Device

- ☐ Percutaneous injury with hollow bore needle (needle gauge)_____
- ☐ Percutaneous injury with a scalpel
- ☐ Percutaneous injury with a suture needle
- ☐ Percutaneous injury with a diamond/bur/disc

Other: _____

Assessment of Injury

- ☐ Severe (deep stick/cut with profuse bleeding)
- ☐ Moderate (skin punctured with some bleeding)
- ☐ Superficial (little or no bleeding)
- ☐ Needle had been in patient's artery or vein
- ☐ Device visibly contaminated with blood
- ☐ Bite with blood contamination
- ☐ Non-intact area of skin exposed_____ Contact time _____ Amount of fluid _____
- ☐ Mucous membrane exposed_____ Contact time_____ Amount of fluid_____

PPE Used

- ☐ Gloves
- ☐ Mask
- ☐ Safety glasses
- ☐ Face shield

Comments: _____

_____

Signature of Injured Person (print name): _____

Signature of RN or Designate (print name): _____

Date: _____/_____/_____
Month (print) Day Year

5

PROTOCOL FOR NEEDLESTICK EXPOSURE

To Assess Source Patient After Exposure

(To be completed by Associate Dean of Clinical Affairs or Designate)

1. Inform the Source Patient of the reason for the enquiry and allow them time to read Information for Patients.

2. Evaluate the Source Patient's risk of blood-borne infection by reviewing their medical history for clinical symptoms and asking them for additional information.

Do you know if you are Hepatitis B, Hepatitis C, or HIV positive or have any risk factors for exposure to these viruses?

Hepatitis B: Yes_____ No_____ Date Diagnosed: _____

Hepatitis C: Yes_____ No_____ Date Diagnosed: _____

HIV: Yes_____ No_____ Date Diagnosed: _____

Stage of Illness _____

Antiretroviral medications: _____

Risk Factors: Yes_____ No_____

Risk Factors may include:

a) IV drug use/shared needles

b) receiving blood products (before 1986 for HIV, before 1986 for HCV)

c) multiple sex partners

d) men having sex with men

e) partner with Hepatitis B, Hepatitis C or HIV or any of the above risk factors

3. Request Source Patient's consent to obtain blood for testing of their Hepatitis B, Hepatitis C and HIV status.

Physician to whom test results should be sent:

Dr._____Telephone Number_____

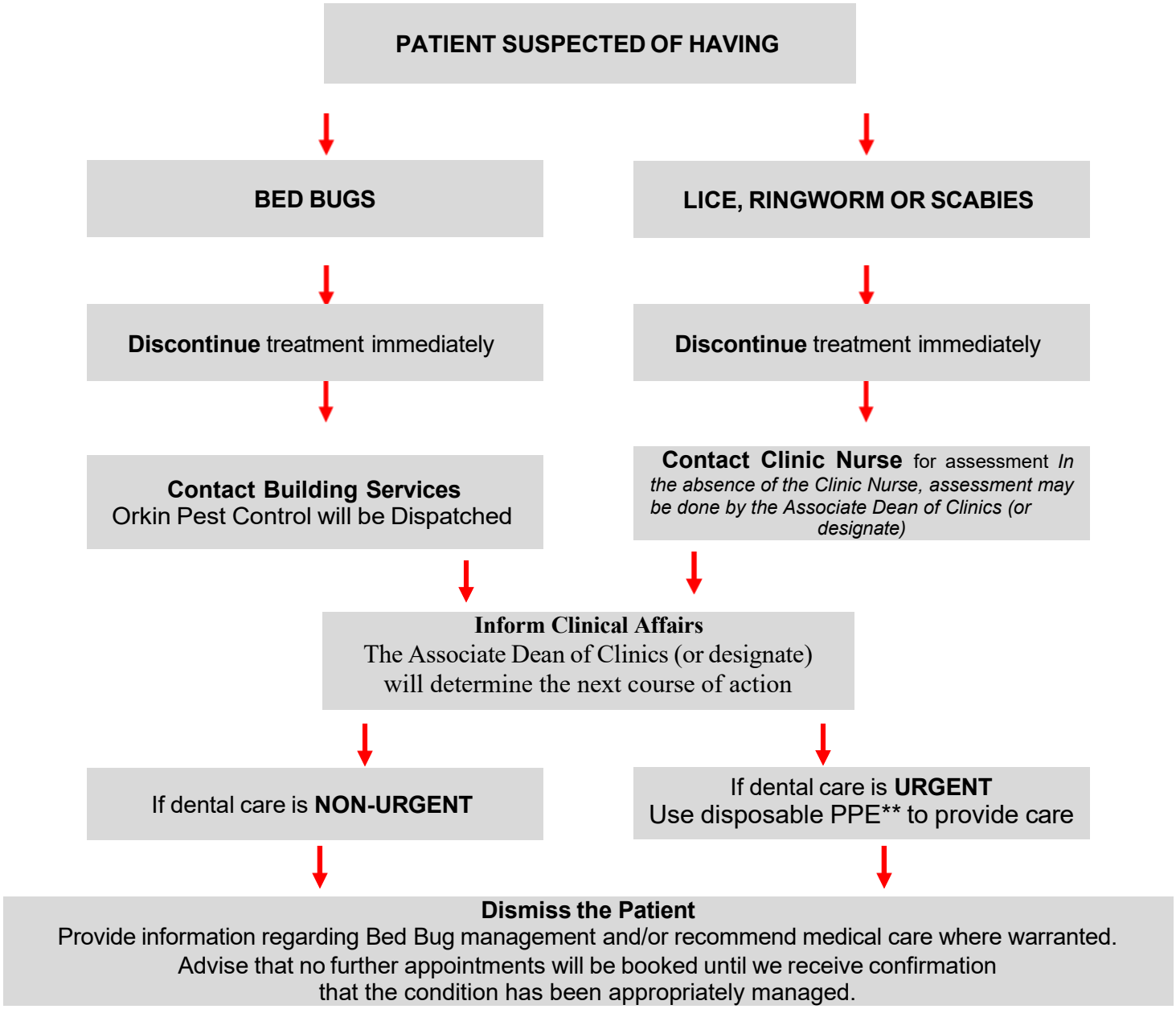
Address _____

Test results will also be sent to Assistant Dean of Clinical Affairs, Faculty of Dentistry.

APPENDIX E: Management of Patients with Bed Bugs, Lice, Ringworm or Scabies

Faculty of Dentistry Dalhousie University
STANDARD OPERATING PROCEDURE

Prepared by:	Blaine Cleghorn	Date:	September 22, 2016
Approved by:	FOD Health & Safety Committee	Date:	October 11, 2016
Revised by:	FOD Health & Safety Committee	Date:	April 16, 2018
Revised by:	FOD Health & Safety Committee	Date:	February 7, 2024



PPE – Personal protective equipment

Masks, gowns, head covers, shoe covers and gloves.

Clean-Up

- **Disposable PPE** - Remove PPE in the cubicle. Place contaminated PPE and procedural waste in a yellow biohazard bag (tie off) and place in a red biohazard bin.
- **Clinic Jackets** - Place in a sealed plastic bag. Use marker to identify the potential contaminant and place in laundry hamper.
- **Personal Clothing** - Anyone who has been exposed to the patient should shower and place clothing in a sealed plastic bag. The contaminated clothing should be washed in hot water and dried for 30 minutes at a medium to high heat setting. Laundered scrubs will be available if a change of clothes is not an option.
- **Glasses / Loupes** – Disinfect
- **Bed bugs -** All areas known to have been visited by the patient are to be cordoned off until they have been managed by the pest control company.
- **Head lice, ringworm, and scabies -** Disinfect the cubicle as per routine protocol and have custodial personnel vacuum the floor.

Resources:

Dalhousie University Pest Control Policy http://www.dal.ca/dept/facilities/services/grounds/pest-managementpolicy.
html

Head Lice http://www.novascotia.ca/dhw/publications/public-health-education/07135-head-lice-pamphleten.
pdf

Patients with Body or Head Lice

Body lice infestations are spread by close person-to-person contact but are limited to people who live under conditions of crowding and poor hygiene. Improved hygiene and access to regular changes of clean clothes is the only treatment needed (CDC 2010).

Head lice are spread mostly by direct head-to-head contact. Treatment with a pediculicide is recommended for persons diagnosed with an active infection. Additional measures are to wash and dry hats, scarves, pillowcases, bedding, towels, and clothing worn by the person in the 2 days prior to treatment (CDC 2010).

Patients with Exposure to Bed Bugs

Bed bugs are **not** known to spread disease. Everyone is at risk of getting bed bugs when visiting an infected area. Bed bug infestations are commonly treated by insecticide spraying (CDC, 2010).

Bed bug bites usually do not pose a serious medical threat. The best way to treat a bite is to avoid scratching the area and apply antiseptic creams or lotions and take an antihistamine (CDC, 2010).

Patients should receive treatment for bed bug bites prior to seeking dental treatment. (See appendix D)

APPENDIX F: SHARPS SAFETY

Providing dental care creates waste, which must be handled safely and in accordance with local, Provincial, and Federal regulations. Safe disposal of sharps helps protect people from injury and possible infection. Sharps safety is everyone's responsibility.

What are Sharps?

"Sharps" refers to a device with a sharp point or edge that can puncture or cut skin, which include:

- Needles and Syringes
- Scalpel Blades
- Ortho Wire
- Endo Wire
- Acid Etch Tips
- Dental Instruments
- Scissors
- Lancets "Finger Stick" Blades used for Glucose Testing
- Glass Vials
-

Tips for safe handling of sharps:

DO use a yellow, rigid, puncture-resistant, CSA approved sharps container. Sharps containers are in the clinics and labs.

DO put sharps into sharps container immediately after use to prevent accidental cuts or injuries.

DO report any sharps concerns or injuries immediately.

DO NOT place sharps in Clinic Jacket/Lab Coat pockets, as this jeopardizes the safety of the laundry employees.

DO NOT dispose of loose sharps in a trash can or recycling container.

DO NOT overfill your sharps container. Once the contents reach the fill line marked on the container (about¾ full), notify Clinical Support staff for replacement.

Clinics: Please notify a Dental Assistant on the Clinic Floor.
Student Labs: Please notify Building Services 494-5199 or building.services@dal.ca

APPENDIX G: Patients with Tuberculosis

Two TB related conditions exist:

(1) Latent TB Infections

Bacteria can live in the body without making you sick. This is called latent TB infection. In most people who breathe in TB bacteria and become infected, the body can fight the bacteria to stop them from growing. People with latent TB infection:

- Have no symptoms
- Don't feel sick
- Can't spread TB bacteria to others
- Usually have a positive TB skin test reaction or positive TB blood test
- May develop TB disease if they do not receive treatment for latent TB infection.

Many people who have latent TB infection never develop TB disease. In these people, the TB bacteria remain inactive for a lifetime without causing disease. But in other people, especially people who have a weak immune system, the bacteria become active, multiply, and cause TB disease.

(2) TB Disease

TB bacteria become active if the immune system can't stop them from growing. When TB bacteria are active (multiplying in your body), this is called TB disease. People with TB disease are sick. They may also be able to spread the bacteria to people they spend time with.

Many people who have latent TB infection never develop TB disease. Some people develop TB disease soon after becoming infected (within weeks) before their immune system can fight the TB bacteria. Other people may get sick years later when their immune system becomes weak for another reason.

For people whose immune systems are weak, especially those with HIV infection, the risk of developing TB disease is much higher than for people with normal immune systems.

APPENDIX H: Patients with Methicillin-Resistant Staphylococcus Aureus (MRSA)

Staphylococcus aureus is a species of bacteria which is commonly present on the skin and in the nose of healthy people. Staph bacteria that are resistant to antibiotic methicillin are known as MRSA. If antibiotics are prescribed to treat infections unnecessarily or individuals do not complete their prescription, infections can develop a resistance to antibiotics.
Staph infections, including Methicillin-Resistant Staphylococcus aureus, (MRSA) can occur among persons in hospitals and healthcare facilities, who have weakened immune systems. Staph and MRSA can also cause infections among people living in the community.

Staphylococcus aureus and MRSA can be carried from one person to another on the unwashed hands of dental health care providers and on contaminated patient equipment.

ABHR is preferred unless hands are visibly soiled. Make good use of the hand lotion to prevent cracks which can prevent portals of entry.
All common patient equipment that has direct contact with a patient's skin (e.g., BP cuff, stethoscope, wheelchair) is to be disinfected after each use.
Environmental cleaning of clinical areas is to be carried out on a regular basis.

APPENDIX I : Medically Compromised Patients

Students should carry out the following activities for all patients receiving treatment for a significant medical problem:

- Identify the problem from the Health Questionnaire.
- Review the history of the problem with the patient.
- Document the problem in the chart.
- Investigate dental implications of the problem.
- Communicate with the patient's physician prior to treatment.

APPENDIX J: Management of Needlestick and Mucous Membrane Exposure to Blood and Body Fluids

It is the responsibility of the exposed individual to report at the earliest opportunity all puncture wounds and mucosal exposures to blood and body fluids that occur within the Dalhousie University Faculty of Dentistry Clinics. This is necessary for rapid follow–up of the incident and so that decisions may be made for the protection of the exposed individual. All phases of medical management and counselling should ensure that the confidentiality of the medical data from both the exposed individual and the source is protected (CDC, 2001).

An Exposure Has Occurred If You Receive:

- A laceration or puncture wound from a needle or sharp instrument contaminated with blood/body fluid.
- If blood/body fluid splashes into your eyes, non-intact skin, or the mucous membrane of your nose and mouth.
- Stop the Procedure and Apply First Aid
- Wash contaminated skin with soap and water.
- Flood eyes with water from Eye Wash Station.
- Flush mucous membranes of nose and mouth with water.

See Clinical Nurse or Associate Dean of Clinical Affairs

- An assessment of the exposure will be done using Checklist A (see Appendix C).
- An assessment of the source patient will be done using Checklist B (see Appendix C).

Low Risk Exposure: Must have blood drawn by scheduling through the NSHA (Nova Scotia Health Authority).

High Risk Exposure

- Clinical Nurse, Assistant Dean, Patient Services or Associate Dean, Clinical Affairs will provide counseling to source patients and receive consent for blood work.
- Exposed individual and source patient will be seen at QE II Health Sciences Centre, Emergency Department.
- Complete Dalhousie University Incident Report within 24 hours of exposure.

Medical Follow-up

1. Medical management of the injury.
2. Testing of the **source patient** for Hepatitis B surface antigen, Hepatitis C antibody, and HIV antibodies with appropriate pre and post counseling and informed consent. Testing of the exposed individual for Hepatitis B surface antibodies (if vaccinated), Hepatitis C antibodies, and HIV antibodies.
3. Determine the need for Post-Exposure Prophylaxis.
4. Documentation of the following information in the exposed individual's confidential medical file.

- date and time of exposure.
- details of the procedure being performed by an individual at the time of the exposure.
- details of exposure, including amount of fluid or material, type of fluid or material and severity of exposure.
- details of the exposure source.
- details of counselling, post-exposure management and follow-up.

APPENDIX K: Dental Radiology (CDC, 2003)

Taking intra-oral or panoramic radiographs

- Record essential information in progress notes and in the back of the chart in the radiology log.
- Obtain necessary phosphor plates with plastic barriers
- Or sensor with a plastic barrier.
- Operator must clean their hands before and after gloving.
- For each patient use a sterile Rinn kit, sensor with barrier, Endo ray or Snap-A-Ray plate holder or Panoramic bite pin.
- Separate Rinn/Sensor kit for the blue sterile wrap and use wrap to drop exposed plates from barrier package.
- Remove exposed plate/sensor from patient's mouth and dry outside of packets.
- Disinfect phosphor plates.
- Remove gloves, wash hands.
- Transport plates on the blue wrap to the scanner for processing.

Preventing cross-contamination

- Clean and disinfect all surfaces contacted while taking radiographs (control panel, extension cone, tube head, and exposure button) with CaviWipe 2.
- Put on protective attire (gloves, mask, eyewear).
- Disinfectant all surfaces touched during procedure.
- Use a separate wipe for each item.
- Allow 2 minutes contact time or appropriate kill time for disinfectant solution.

Processing digital radiographs

- Wear protective attire (gloves, lab coat).
- Scan plates and upload x-ray images.
- Remove plates from bottom of scanner.
- With clean, gloved hands place plate into a barrier and seal.

Using Direct Sensors

- Cover senor with the corresponding #1 or #2 barrier.
- After use, discard the barrier, wipe sensor and cord with a CaviWipe 2.
- Disinfect keyboard, mouse, radiology button and tube head.
- Allow 2 minutes contact time or appropriate kill time for disinfectant solution.

Intraoral Photography

- Prepare in advance for photographs by obtaining all supplies including camera equipment, sterilized cheek retractors, and mouth mirrors.

- Handle the camera using clean ungloved hands.
- If assistance is required, the person handling the intra-oral equipment must be gloved.

Intraoral Microscope/Camera

During patient treatment, the operator should handle only those parts of the microscope/camera which can be cleaned and sterilized (caps on the changer, turning knob, and focusing device). Another person, wearing non-contaminated gloves, can handle other components. OR cover the microscope with a plastic bag with a lens cover to protect the microscope surfaces.

After each patient's treatment, clean and sterilize frequently handled parts of the microscope/camera according to the manufacturer's instructions. **For surgical procedures the microscope shall be covered in a sterile drape for surgical asepsis.**

Laser/Electrosurgery Plumes and Surgical Smoke

During surgical procedures that use laser or electrosurgery units, the thermal destruction of tissue creates a smoke by product.
Lasers transfer electromagnetic energy into tissues, resulting in the release of a heated plume that includes particles, gases, tissue debris, viruses, and offensive odors.

DHCP should take the following precautions to reduce the potential risk from laser/electrosurgery plumes:

- Use high-filtration surgical masks and full face- shields.
- Use of a surgical plume excavating unit during all electrosurgery and laser procedures.
- Must wear proper laser approved laser safety glasses.

APPENDIX L: Handling Biopsy Specimens (CDC, 2003)

Each specimen is to be placed in a sturdy container with a secure lid to prevent leaking during transport.

Care must be taken when collecting specimens to avoid contaminating the outside of the container and the laboratory form accompanying the specimen.

If the outside of the container is visibly contaminated, clean and disinfect before transporting it to the Oral Pathology Department.

APPENDIX M: Medical Conditions, Work-Related Illness and Work Restrictions for Dental Health Care Personnel

Any medical condition that interferes with performing patient-related activities or if performing those activities puts the DHCP at risk. DHCP should refrain from working in any patient care area including Clinical areas and Medical Device Reprocessing.

- Gastro-intestinal Disturbance (vomiting and/or diarrhea)
- Chicken Pox or Shingles.
- Fever or Flu.
- Conjunctivitis.
- Herpes Simplex
- Covid 19

Exudative lesions or weeping dermatitis must be contained by a dry clean medical bandage. All dental health care personnel who have exudative lesions or weeping dermatitis on hands, forearms or other parts of the body must refrain from all direct patient contact and from handling patient care equipment until the conditions are resolved. If you have a weeping lesion that cannot be safely contained with proper medical bandages, you should not report to work.
OHCP who have oral and/or nasal herpes simplex infections should pay particular attention to hand hygiene and not touch the affected area. Those with herpes simplex infections or issues on their hands, that may prevent them from wearing appropriate PPE (e.g., gloves) must remove themselves from providing patient care or performing reprocessing duties until the condition heals. The decision to restrict work or clinical activity must be made in consultation with the Associate Dean of Clinical Affairs and attending physician. In the case of a staff person, the decision to restrict or alter work duties would also include the manager and Human Resources.

APPENDIX N: Boiled Water Advisory

Drinking Water:
Tap water should not be consumed or used for brushing teeth, including water from filling stations.

Hand Hygiene:
Alcohol-based hand rub (ABHR) is acceptable for hand hygiene.
If hands are visibly soiled, wash with bottled water and hand soap.

Medical Device Cleaning:
Reverse Osmosis (RO) water should be used for cleaning and rinsing handwash only, sterilizable medical devices.
The Medical Device Reprocessing Area can remain operational, utilizing RO water for this purpose.
Medical Devices that are not sterilizable and require cleaning using water and a cleaning solution must not be used for patient care until Boil Water Advisory has been lifted, taps have been flushed and proper cleaning with clean water can be performed.

Clinic Operations:
Clinics may continue to operate as long as the RO water system remains functional and treated with UV light.

Post-Advisory Action:
Once the Boil Water Advisory is lifted, flush all incoming public water system lines (including taps and other water lines) for 1-5 minutes to ensure the water is safe for use.

By following these guidelines, health and safety standards can be maintained during a Boil Water Advisory.

APPENDIX O: Medical Device Reprocessing

General Policies (CSA, 2023)

- Manufacturers must provide written instructions for the cleaning, disinfection and sterilization of dental instruments and equipment.
- Medical Device Reprocessing (MDR) staff must receive training in the reprocessing of any new dental instruments and equipment.
- Service technicians must follow infection control guidelines when repairing MDR equipment.

Sterilization of Dental Instruments

All instruments and devices used in and around the oral cavity must be sterilized after each use. Sterilization is the use of a physical or chemical procedure to destroy all microorganisms including substantial numbers of resistant bacterial spores (CDC, 2003).
Within the Faculty of Dentistry clinics, dental instruments and devices are steam sterilized using the following information: (CSA,2023).

Preparation

- Before sterilization, all instruments are cleaned either manually, in an ultrasonic machine, and is followed by disinfection a washer –disinfector.
- Persons involved in cleaning instruments must wear protective attire (goggles or face shield, mask, waterproof apron, hair cover and gloves).
- When cleaning instruments manually (submersible items), use a long- handled non-abrasive brush (or lint free cloth) while cleaning under water. Items final rinse should be rinsed with RO water.
- When cleaning instruments manually (non-submersible items) use a lint free cloth and fully wipe down the instrument. Using a separate lint free cloth, rinse instrument by wiping with RO water. Always follow the manufacturer's instructions with choosing correct cleaning methods.
- After cleaning, the instruments are dried.
- Examine instruments for debris or damage and manually clean or discard as necessary.
- Brushes should be cleaned and disinfected at the end of the day.

Packaging

- Instruments are either placed in a paper/plastic pouch or in an instrument cassette, which is wrapped, prior to sterilization.
- A chemical indicator is placed in each pouch or cassette.
- Pouches are self-sealed, or sealed using a heat sealer and cassettes are secured with autoclave tape.
- Each pouch or cassette is labeled with the following data – sterilizer number, load number, and date.
- All sterile packages are labeled with the identity of the person who assembled it.

Sterilizer Load

- Packages are placed in the sterilizer in a manner that facilitates air removal, steam penetration, and steam evacuation for drying.

Storage

- After sterilization, items should be cooled before storing or touching to avoid wet packs and contamination.
  Instruments are stored in sealed packages until used.

Sterility Assurance
Biological indicators are used to verify the adequacy of the sterilization cycle daily. For steam sterilization, a medium containing *Bacillus Stearothermophilus* is used.

Biological Testing
A BI Contained within a PCD (process challenge device) shall be used to test the sterilizer for each type of cycle used at the shortest exposure time for each cycle type. This test shall be performed minimally daily when the sterilizer is in use with a full load.

Cycle Types:

a) gravity displacement at 132 to 135 degrees C
b) gravity displacement at 121 degrees C
c) dynamic air removal at 132 to 135 degrees C and
d) IUSS at 132 to 135 degrees C

Implantable Items

Every load containing an implantable medical device must be monitored using a BI PCD. Due to the length of time that an implant item is in contact with a patient (client), the risk of infection from a non-sterile implant is greater than from a medical device used during typical procedure. Implants include, but are not limited to,

- ligating clips
- gastric staples; and
- orthopedic internal fixation medical devices such as: screws, plates, staples, and wires
- joint replacement prostheses
- cardiac valves and
- mesh

Routine BI Testing Requirements:

Procedure: The BI PCD shall be placed in the location as designated by the BI PCD and sterilizer manufacturer as follows:

a) For steam sterilization, a standard cycle with a typical load shall be run with the BI PCD placed in a full load in the sterilizer chamber above the drain.

b) On cycle completion, the BI PCD shall be removed from the sterilized load and documented. Documentation includes date and time of sterilization, sterilizer number, and cycle number.

The BI shall be incubated in accordance with the MIFU's.

Control BI are used to verify the viability of the bacterial spore population, the ability of the growth media to promote growth and the proper functioning of the incubator.

Recalls

- If a Biological Indicator (BI) has *not* successfully passed (has tested *positively* for spores), all items on the failed sterilizer load must be re-called and not be used for patient care until further investigation. If the sterilizer mechanical printout parameters have been met, and there were no operational/operator errors, another BI test can be run on another sterilization load of the same (or higher) contents challenge. If the second BI test has successfully passed, the load contents may be released for patient care. If the second BI test has failed, the failed load contents and all sterilizer load contents up until the previous successful (negative) BI test must be recalled and re-processed and the sterilizer must be serviced.
- **Important Note:** Public Health must be notified of any sterilizer load contents that could not be recalled.
- All recalls shall be documented.
- The sterilizer should be serviced by a certified machine specific technician, followed by a successful pass of leak test, 3 consecutive DART (Bowie Dick) tests and 3 consecutive BI tests.
- Only when all tests are complete can the sterilizer be safely put back into operation.

Shelf Life

- An item remains sterile unless it is opened, damaged, dropped on the floor, soiled or wet.

APPENDIX P: Management of Loaned, Reusable Medical Devices (CSA, 2011)

Dental instruments and devices are supplied to satellite clinics for use by Faculty of Dentistry students, staff, and faculty.

Release

Before releasing a medical device (instrument, tray, equipment) the sender shall decontaminate it and ensure that all essential components are present.

Sending

- If dental instruments and devices cannot be cleaned immediately after use, they must be kept moist by spraying with a transport gel.
- Contaminated medical devices are to be sealed in an impermeable container labeled "biohazard".
- Place the contained device into an impermeable transportation case with a biohazard label attached outside.

Transportation

Cleaned and sterilized medical devices shall be contained separately from soiled medical devices or laundry to prevent or minimize cross-contamination.

APPENDIX Q: Management of Medical Devices for Study Clubs and Hands-On Courses

Privately Owned Instruments and Equipment – Processed at Dalhousie University, Faculty of Dentistry

- Instruments from dentists not currently licensed in Nova Scotia, New Brunswick, Prince Edward Island, or Newfoundland will be washed, packaged, and sterilized prior to use by the MDR Department of the Faculty of Dentistry. Sterilization monitoring will be conducted on each load. Instruments in clean condition and good working order are to be delivered to MDR, 3 days prior to use.

Privately Owned Instruments and Equipment – Processed in Private Practice

Dentists **currently licensed** in Nova Scotia, New Brunswick, Prince Edward Island, or Newfoundland may use their own instruments packaged and sterilized in accordance with recommendations of CDA Infection Prevention and Control in the Dental Office 2006 (IPC- 04-01 to IPC-04-04). All new items must be cleaned and sterilized prior to use (e.g., burs, files, brownies, greenies). Sterile items are to be transported in a puncture-resistant, sealed container. Provide written notification if any instruments are to be or were previously used on animals or post-mortem individuals.

Waiver: Dentists bringing processed equipment, handpieces, and hand instruments into the facility will be required to sign a waiver indicating that any instruments they bring into the faculty have been cleaned, sterilized and transported according to these guidelines.

Biological Monitoring: Dentists will comply with the CDA 2006 (IPC-04-04) requirement for weekly biological monitoring of sterilizers used in private practice. Upon request, dentists will supply documentation of biological monitoring results.

Used Instruments: Following patient treatment, unwashed items may be removed from the facility, if placed in a puncture-proof, sealed container with a Bio-hazard label affixed to the outside. Separate containers are required for transporting clean/sterile instruments and soiled instruments.

Release of Contaminated Instruments: Following patient treatment, unwashed items may be removed from the facility, if placed in a puncture-proof, sealed container with a Bio-hazard label affixed to the outside. Separate containers are required for transporting clean/ sterile instruments and soiled instruments.

APPENDIX R: Dental Laboratory

Personal Protective Attire

- Laboratory personnel should wear a clean lab coat.
  Change coat weekly or sooner if soiled.
  Remove when leaving work area.
- Eyewear and mask should be worn when operating lathe, model trimer, or rotary equipment.
- To reduce injury from aerosols, spatter, and particles, use safety shields/safety glasses and ventilation when operating rotary equipment.
- Gloves should be worn if it is necessary to handle a contaminated item.

Receiving Area

This area should be separate from the Production Area.

- New cases should be placed in a clean case pan and articulator.
- Communicate with the client to ensure that the case has been cleaned and disinfected.

If disinfection cannot be confirmed, put on protective attire (gloves, mask, and eyewear). carry out the following instructions:

Clean

- Place item in zip-lock plastic bag, add appropriate ultrasonic cleaner, and seal bag.
- Operate ultrasonic machine for required time.
- Discard plastic bag and cleaning solution, rinse thoroughly.

Disinfect

- Place item in zip-lock plastic bag, pour in disinfectant to cover completely.
- Allow for 3-minute contact time or appropriate kill time for product used, remove immediately.
- Rinse under running water to remove any chemical residue prior to handling.
- Packaging from outside cases should be discarded.

Work surfaces should be cleaned and disinfected every day:

- Wear protective attire (gloves, mask, eyewear).
- Apply disinfectant to an absorbent towel and clean each item.
- Use a separate Kim towel for each item.
- Allow 3 minutes contact time appropriate kill time for disinfectant solution.

Production Area

This area should be isolated from the possible transmission of micro-organisms. All items brought into the Production Area should have already been cleaned and disinfected. No persons should be permitted to enter while wearing contaminated attire.

Housekeeping

- NO FOOD or DRINK are to be consumed at the work bench.
- Laboratory staff should clean their hands each time they change cases.
- Work benches should be covered with paper.
- Work benches should be cleaned and disinfected at the end of the day or whenever contamination occurs.
- Wear protective attire (gloves, masks, eyewear).
- Apply disinfectant to an absorbent towel and clean each item.
- Use a separate towel for each item.
- Re-apply and disinfect each item with another towel.
- Allow 3 minutes contact time or appropriate kill time for disinfectant solution.

Sharps Disposal

- Use a hemostat to remove blade from lab knife.
- Discard used burs, orthodontic wire, and blades in a puncture-resistant container.

Clean-Up

- Polishing lathes should be cleaned and disinfected daily.
- Each day, clean and disinfect all common-use laboratory instruments and equipment (wax carver, wax spatula, spatula and mixing bowl, rag wheels, burs etc.).
- Pressure pots and water baths should also be cleaned and disinfected daily.
- Put on protective attire (gloves, mask, and eyewear).
- Disinfectant and clean each item with a CaviWipe2.
- Use a separate wipe for each item.
- Allow 2 minutes contact time or appropriate kill time for disinfectant solution.
- Use a unit dose of pumice, wet with water for each case.
- Line the pumice tray with plastic, change daily.
- Discard PPE properly, including lab coat in laundry hamper.

Distribution Area

- Use new packaging to transport outside cases.
- Store Appliances and prosthodontic devices in water, NOT DISINFECTANT.
- If the same equipment has been used on new and existing prostheses, disinfect the item before it leaves the laboratory.

Clean

- Wear protective attire (gloves, mask, eyewear).
- Place item in zip-lock plastic bag, add appropriate ultrasonic cleaner, and seal bag.
- Operate ultrasonic machine for required time.
- Discard plastic bag and cleaning solution, rinse thoroughly.

Disinfect

- Place item in zip-lock plastic bag, pour in disinfectant to cover completely.
- Allow 3 minutes contact time or appropriate kill time, remove immediately.
- Rinse under running water to remove any chemical residue prior to insertion into patient's mouth.

APPENDIX S: Endocarditis

The Canadian Dental Association (CDA) supports the American Heart Association (AHA) recommendations that only patients at greatest risk of an adverse outcome from infective endocarditis, an infection of the heart's inner lining or heart valves, require antibiotic prophylaxis prior to certain dental procedures.
The recommendations, which are outlined in the 2007 AHA Guideline on Prevention of Infective Endocarditis, emphasize that most patients with a history of cardiac health issues do not need routine preventive antibiotics before a dental procedure.
The AHA guidelines are based on a growing body of scientific evidence that indicates the risks associated with prophylactic antibiotic use, including a range of adverse reactions and development of drug-resistant bacteria, outweigh any benefits. To reduce the risk of infective endocarditis, the AHA guidelines emphasize the importance of maintaining excellent oral health through regularly scheduled dental visits and daily oral hygiene, which decreases the incidence of bacteremia associated with daily activities.
The AHA guidelines include antibiotic regimens prior to dental procedures for patients at risk for infective endocarditis and can be found at:

https://www.ahajournals.org/doi/10.1161/CIRCULATIONAHA.106.183095 (accessed 2022-06-02)
Those at greatest risk of an adverse outcome from infective endocarditis should receive single dose preventive antibiotics before all dental procedures that involve manipulation of gingival tissue or the periapical regions of teeth or that perforate the oral mucosa.
The following procedures and events **do not need prophylaxis** for high-risk patients:

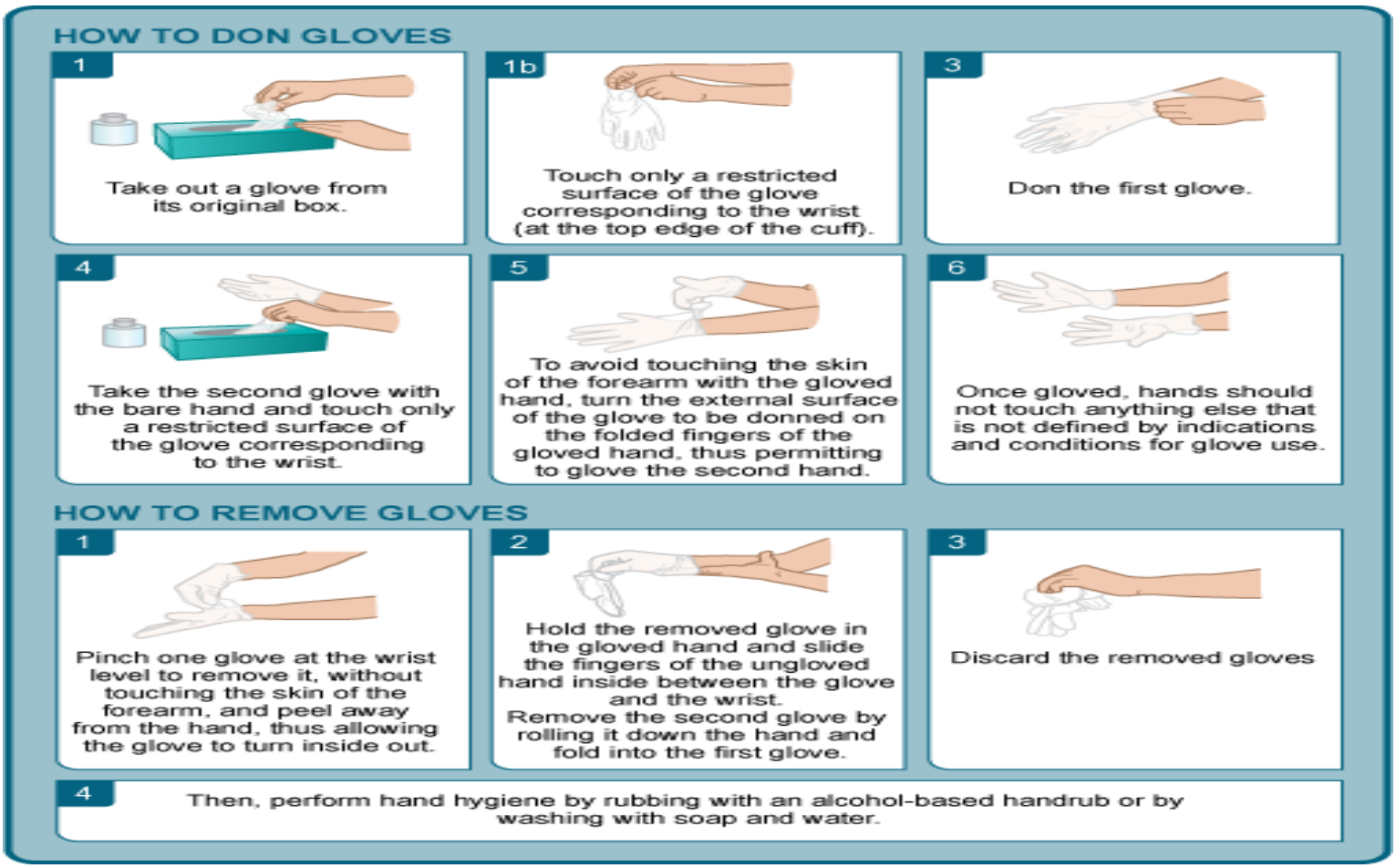
- routine anesthetic injection through noninfected soft tissue
- dental radiographs
- placement of removable prosthodontic or orthodontic appliances
- adjustment of orthodontic appliances
- placement of orthodontic brackets
- shedding of deciduous teeth
- bleeding from trauma to the lips or mucosa

For clarity, the AHA guidelines state that prophylactic antibiotics, which were previously routinely administered to certain patients, are no longer needed for such patients.
The following table, based on the AHA guidelines, outline people at greatest risk of an adverse outcome from infective endocarditis and require antibiotic prophylaxis, as well as those for which routine prophylaxis is not needed.

1. a prosthetic cardiac valve	1. mitral valve prolapse
2. a prosthetic cardiac valve repair	2. rheumatic heart disease
3. a history of infective endocarditis	3. bicuspid valve disease
4. a cardiac transplant that develops a problem in a heart valve.	4. calcified aortic stenosis
5. specific serious congenital (present from birth) heart conditions including: • unrepaired or incompletely repaired cyanotic congenital heart disease, including those with palliative shunts and conduits • a completely repaired congenital heart defect with prosthetic material or device, whether placed by surgery or by catheter intervention, during the first six months after the procedure • any repaired congenital heart defect with residual defect at the site or adjacent to the site of a prosthetic patch or a prosthetic device	5. congenital heart conditions such as ventricular septal defect, atrial septal defect and hypertrophic cardiomyopathy.

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APPENDIX T: How to Don Examining Gloves

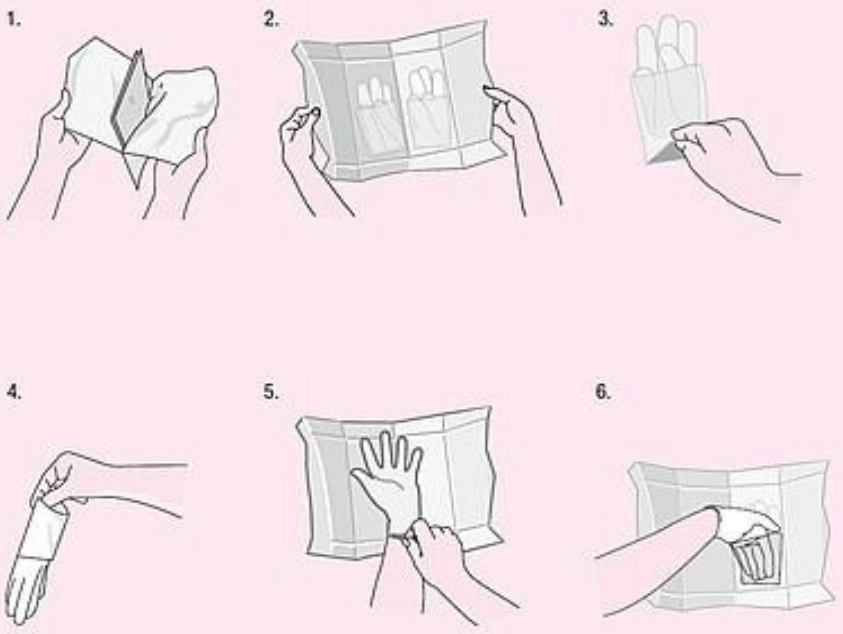


APPENDIX U: How to Don Sterile Gloves

Applying sterile gloves

1. Open glove packaging using outside edges only and tip out inside packaging onto sterile field, then wash your hands.
2. Open the inner packaging using outer edges of packaging only until gloves are exposed.
3. Pick up the left glove using your right hand; pick it up by the cuff only.
4. Hold the glove at the fold of the cuff, insert your left hand and pull the glove onto your hand.
5. Once pulled onto your hand adjust if necessary but only touch the inside of the glove.
6. Pick up the right glove by tucking your gloved left hand in between the fold of the cuff and pull the glove over your right hand. Readjust fingers once both gloves are *in situ*.

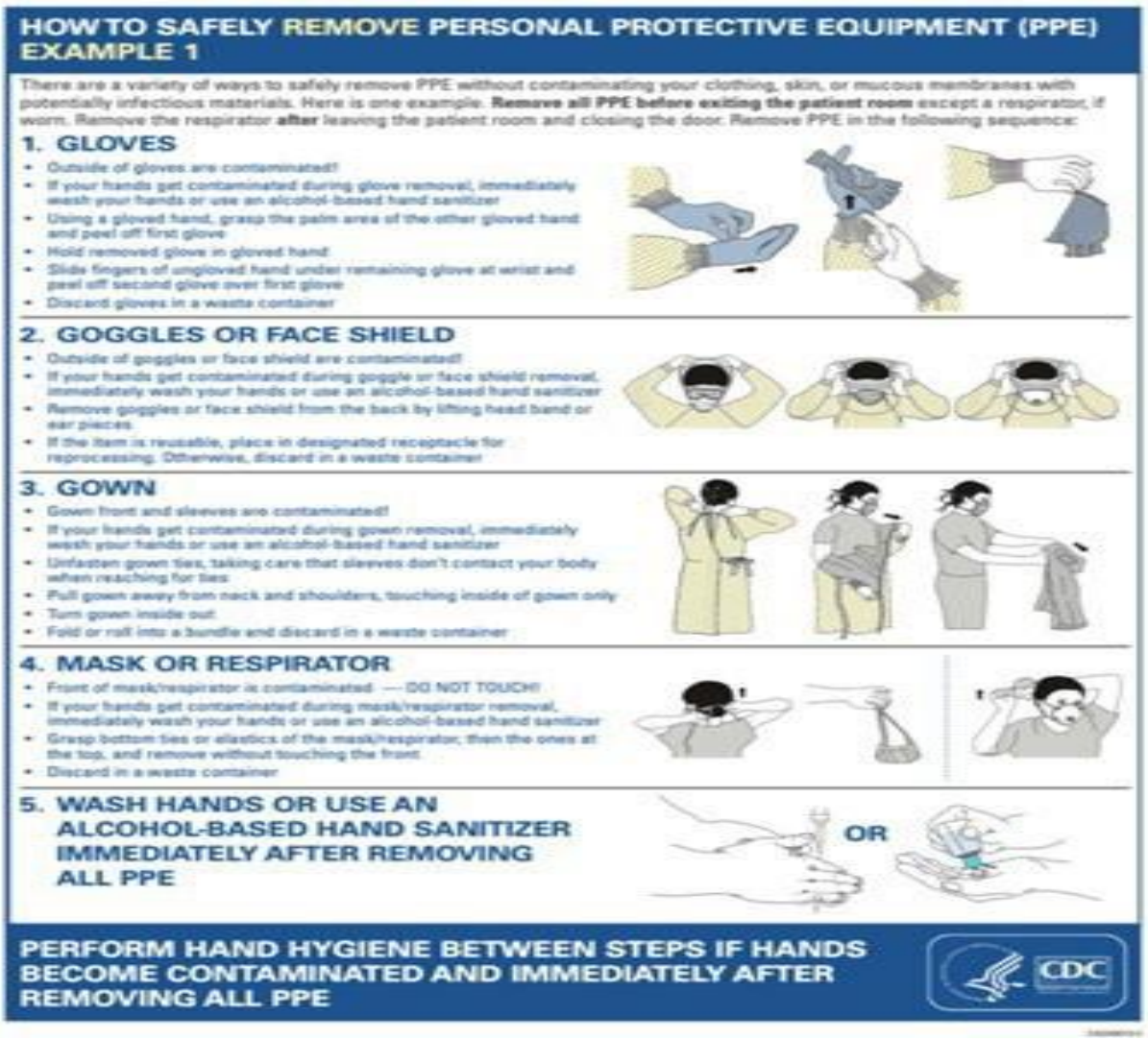
When applying the right glove ensure that the sterile left glove does not touch your skin.



APPENDIX V: DONNING PPE SEQUENCE



APPENDIX W: Doffing PPE



APPENDIX X: Decontamination of Environmental Surfaces

Housekeeping Surfaces

Evidence does not support that housekeeping surfaces (e.g., floors, walls, and sinks) post a risk for disease transmission in dental health care settings. However, when housekeeping surfaces are visibly contaminated by blood or other potentially infectious material, prompt removal and surface disinfection are appropriate infection control practice (CDC, 2003). The Faculty of Dentistry has a schedule for cleaning of clinical areas and high-touch surfaces.

Blood Spills

Blood spills on either clinical contact or housekeeping surfaces should be contained and managed as quickly as possible to reduce the risk of contact by patients and Dental Health Care Personnel (CDC, 2003).

- Wear protective attire (gloves, mask, eyewear).
- Pour disinfectant over visible organic material and remove with an absorbent towel
- Contain soiled towel in a plastic bag, tie closed.
- Apply disinfectant to absorbent towel and clean surface
- Repeat application with another towel to disinfect surface
- Discard towel in Biohazard Bin

Transportation of Equipment

When transporting soiled equipment, the following principles are applied:

1. Items must be transported wearing gown protection. A lab coat is acceptable.
2. If suspected presence of water or spray gel liquid, a waterproof disposable gown must be worn.
3. All lab coats used to perform soiled pick-ups are to be changed prior to re-entering the MDRD, clinical areas, or sterile dispensaries, unless lab coat was covered with a waterproof gown. Waterproof gown is removed and disposed of before re-entering MDR area, clinical areas, or sterile dispensaries.
4. All soiled instruments/items must be in a closed case cart and/or closed container for transport.
5. All case carts must be labelled with a BIOHAZARD tag before transport.

Procedure:

1. Don a clean pair of gloves.
2. Place lids on containers and placed into soiled case cart (if there is no room in cart, covered containers may be left on top of case cart).
3. Ensure trays and other items in case cart are secure (if trays or other items are not secure and need an adjustment, visually inspect for sharps before reaching into soiled case cart to avoid injury).
4. Remove/discard gloves and wash hands (or apply ABHR).
5. Close case cart.

6. Place BIOHAZARD label on top of case cart, ensuring it is visible.
7. Case cart is now ready for transport to the MDRD or soiled dispensary.
8. Once case cart has been sent down on the soiled lift or dropped off in the MDRD, doff soiled lab coat into the nearest linen bag or dispose of disposable waterproof gown into the nearest trans receptacle.

Please Note: Soiled Lab Coat must be doffed into linen bag that is located <u>outside</u> of the MDRD, clinical area, or dispensary areas as to avoid cross-contamination. Wash hands and/or apply ABHR before entering MDRD, clinic, or dispensary.

APPENDIX Y: Evacuation Traps

Dental Assistant staff will remove disposable and reusable evacuation traps every 6 months.

- Wear protective attire (gloves, mask, and eyewear) to clean or handle evacuation trap.
- Run cleaner through the evacuation system. Allow 10 minutes contact time.
- Turn off vacuum, open unit, and discard debris (cotton pellets, floss, etc.) from trap.
- **Do not discard traps or amalgam in the garbage.**
- Place used traps and amalgam in bucket labeled **"Mercury Waster: Contact Amalgam"** and seal top.
- Place a new trap in the unit.
- If trap is reusable, dry dump amalgam into bucket labeled **"Mercury Waste: Contact Amalgam"** and return trap to unit.
- Remove protective attire and wash hands.

Closed Water Systems Maintenance

The Dental Assistant will shock the water bottles once a month to prevent biofilm from growing inside.

- Empty water from the bottle.
- Drop 2 shock tablets into the 2-liter bottle (1 tablet for 1 liter bottle).
- Fill the dental unit water bottle with 354 ml (12 oz) R.O.water or to the shock line indicated on the bottle.
- Wait 60 seconds for tablets to fully dissolve.
- Swirl the orange shock solution to clean and disinfect the inside of the bottle.
- Connect the bottle to the dental unit and run lines untilorange color appears.
- Leave the shock solution in the lines overnight or over the weekend.
- The next day, empty the orange shock solution from the bottle.
- Add 1 ICX tablet wait 60 seconds and fill the bottle with water from the R.O. System faucet and connect to dental unit.
- Flush lines into a beaker until water is clear of orange solution. Rinse, dry and disinfect beaker before returning.
- Quarterly, water bottles are cleaned with a 1:10 Water/Sodium Hypochlorite solution before the cleaning process begins, to ensure the bottles are kept clean.
- The solution is added to the water bottle to the shock line. Swirl solution to clean bottle and let stand for 3 minutes. Dump water and begin the shocking process as indicated above.

APPENDIX Z- Guideline on Disinfection Procedures in Prosthodontics

To prevent cross-contamination and protect patients, providers, and laboratory technicians, it is essential to follow a strict disinfection protocol for any potentially contaminated materials, including impressions, acrylic stents, wax rims, frameworks, crowns, and dentures, whether they are entering or leaving the laboratory.

Because these materials are often irregular or porous, simply wiping them with a disinfectant is insufficient. Likewise, soaking them in chlorhexidine is inadequate, as it is an antiseptic formulated for skin and mucous membranes, not a broad-spectrum surface disinfectant.

The appropriate disinfectant available in the clinic is Cavicide, a broad-spectrum disinfectant containing isopropyl alcohol and quaternary ammonium compounds. Cavicide is effective against a wide range of pathogens, including viruses, bacteria (including mycobacteria), and fungi. All contaminated items must be disinfected before being sent to the laboratory and again upon return, prior to intraoral insertion. Because casts are difficult to disinfect due to the highly porous nature of gypsum materials, any contaminated parts must be thoroughly disinfected before placement on the cast and again before reinsertion into the patient's mouth.

Proper contact time is essential for effective disinfection. Although Cavicide is approved for a 1-minute contact time under certain circumstances (e.g., non-critical surfaces), this duration may not be sufficient to eliminate all targeted microorganisms. A 2-minute contact time is required for effectiveness against HIV, HBV, and HCV, while a 3-minute contact time is required for effectiveness against TB and MRSA. Because dental prostheses are considered semi-critical items, a contact time of 3 minutes is recommended to ensure comprehensive disinfection.

Following disinfection, all prostheses and components must be thoroughly rinsed with water before being placed intraorally, as Cavicide is not intended for direct contact with oral tissues.

Please also be mindful of cross-contamination of surrounding surfaces and objects, including Cavicide bottles and the exterior surfaces of cups used to transport disinfected items.

Finally, it is important to remember that disinfection does not equal sterilization. Cavicide is ineffective against spores and certain non-enveloped viruses, including HPV.

Thank you for your attention to these procedures and for your commitment to maintaining a safe clinical and laboratory environment.

References:

Infection Prevention and Control (IPAC) Standards (2022)

Canadian Standards Association., National Standard of Canada (2023) Z314:23, Canadian Medical Device Reprocessing in all Health Care Settings

NSHA Administrative Dress Standards Policies and Procedures (2019)

Alberta Dental Association & College (2010). Infection Prevention and Control Standards and Risk Management for Dentistry. Edmonton, Alberta.

Canadian Dental Association. Position Paper on Access to Oral HealthCare for Canadians. May 2010.Ottawa, Ontario

Canadian Dental Association (2006). Infection Prevention and Control in the Dental Office. Ottawa, Ontario.

Canadian Dental Hygiene of Nova Scotia Infection Control guidelines.

Canadian Standards Association. (2009) CSA-Z314.3-09. Effective Sterilization in Health Care Facilities by the Steam Process, Mississauga, Ontario.

Canadian Standards Association. (2011) CAN/CSA-Z314.22-10. Management of loaned, reusable medical devices. Ottawa, Ontario.

Centers for Disease Control & Prevention. Seasonal flu: Respiratory hygiene/cough etiquette in health care settings. (Feb. 27, 2012) www.cdc.gov/flu/professionals/ infection control/resphygiene.htm Accessed June11, 2013.

Centers for Disease Control & Prevention. Lice. (Nov.2, 2010) www.cdc.gov/ parasites/lice. Accessed Jan.13, 2012.

Centers for Disease Control & Prevention. Bed bugs. (Nov.2, 2010) www.cdc.gov/ parasites/bedbugs. Accessed Jan.13, 2012.

Centers for Disease Control & Prevention. Tuberculosis. (June 11, 2011) www.cdc. gov/tb. Accessed June 11, 2013.

Centers for Disease Control (2001). Updated U. S. Public Health Service Guidelines for the Management of Occupational Exposures to HBV, HCV, and HIV and Recommendations for Postexposure Prophylaxis. Morbidity and Mortality Weekly Report, 50, (RR-11).

Centers for Disease Control (2002). Guideline for Hand Hygiene in Health- Care Settings. Morbidity and Mortality Weekly Report, 51 (No.RR-16).

Centers for Disease Control (1991). Recommendations for Preventing Transmission of HIV and HBV to Patients During Exposure-Prone Invasive Procedures. Morbidity and Mortality Weekly Report, 40 (RR-8).

Centers for Disease Control (2003). Guidelines for Infection Control in Dental Health-Care Settings. Morbidity and Mortality Weekly Report, 52 (RR- 17), 1-65. Cleghorn, B. (2005).

Siegel MA. Diagnosis and management of recurrent herpes simplex infections. JADA 2002; 133:1245-1249.

Rowe NH, Shipman C, Jr., et al. Herpes simplex virus disease: implications for dental personnel. Council on Dental Therapeutics. JADA1984; 108:381-382.

Spruance SL, Rea TL, Thoming, C, Tucker, R, Saltzman, R and Boon, R. Penciclovir cream for the treatment of herpes simplex labialis. A randomized, multicenter, double-blind, placebo- controlled trial. Topical Penciclovir Collaborative Study Group. JAMA 1997; 277:1374-1379.

Scott DA, Coulter WA and Lamey, P-J. Oral shedding of herpes simplex virus type 1: a review. J Oral Pathol Med 1997; 26:441-447.

McMechen DL, Wright JM. A protocol for the management of patients with herpetic infections. Dent Hyg 1985;59:546-548.

McIntyre GT. Viral infections of the oral mucosa and perioral region. Dent Update 2001;28:181- 186, 188.

Lewis MA. Herpes simplex virus: an occupational hazard in dentistry. Int Dent J 2004;54:103-111.

Manzella, JP, McConville, JH, Valenti, W, Menegus, MA, Swierkosz, EM and Arens, M. An outbreak of herpes simplex virus type 1 gingivostomatitis in a dental hygiene practice. JAMA 1984;252:2019-2022.

Dalhousie University, Faculty of Dentistry (2009). Policy on Students & Student Applicants with Infectious Diseases. Halifax, Nova Scotia.

Dalhousie University, Faculty of Dentistry (2009). Policy on Faculty& Clinical Support Staff with Infectious Diseases. Halifax, Nova Scotia.

Dalhousie University (2010). Biosafety Manual. Halifax, Nova Scotia.

Lux, Judy. Infection control practice guidelines in dental hygiene – Part 1. Canadian Journal of Dental Hygiene 2008; 42, no. 2:63-103.

Lux, Judy. Current issues in infection control practices in dental hygiene – Part 2. Canadian Journal of Dental Hygiene 2008; 42, no. 3: 139-152.

National Advisory Committee on Immunization (2006). Canadian Immunization Guide. Ottawa, Ontario, Nova Scotia Dental Association (2002) Best Management Practices for PBNS (Provincial Dental Board of NS) infection control guidelines.

Public Health Agency of Canada (2007). Canadian Lung Association. Canadian Tuberculosis Standards. Ottawa, Ontario.

Public Health Agency of Canada (2008). Fact Sheet on Methicillin-Resistant Staphylococcus aureus. www.publichealth.gc.ca Accessed June 11, 2013.

Runnells, R.R. (1984). Infection Control in the Wet Finger Environment. Publishers Press. Salt Lake City, Utah.

CDC Guidelines for Hand Hygiene in the Healthcare Setting (2002)
ACORN Journal 2011;93(3) 397-398 Surgical Scrub – Clinic Issues

Hazardous Dental Waste Disposal. Halifax, Nova Scotia.

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