Manitoba Dental Association

Infection Prevention and Control Practices

The College of Dental Hygienists of Manitoba supports and approves the Infection Prevention Control Practices document for its registrants.

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Manitoba Dental Association

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1.0 INTRODUCTION

1.1 Purpose of Document

The Manitoba Dental Association (MDA) is the regulatory body for dentists and dental assistants in Manitoba. As such, the MDA has the fiduciary duty to regulate our profession in the public interest and to ensure public safety through the development of documents and guidelines for use by Oral Healthcare Providers (OHCPs) in the delivery of dental care. Dentists have a duty to maintain a safe office environment for patients, staff and visitors alike. They must follow all current municipal, provincial and federal regulations related to the operation of a dental practice. This document represents minimum requirements of infection prevention and control for dental offices in Manitoba. It was developed through the collaboration and support of hardworking dedicated industry leaders, who have given their time in the interest of public safety, and we are sincerely grateful. The College of Dental Hygienists of Manitoba (CDHM) is the regulatory body for dental hygienists in Manitoba, and we are grateful for their valuable insight and contributions to this document and as partners in the delivery of safe oral care. This document is not meant to replace the prudent dental professionals' knowledge, skill and judgment in the delivery of safe dental care. It is meant to augment and support it.

1.1.1 Summary of major revisions and additions

Users will notice that there are revisions and updates when compared with the 2006 MDA Infection Prevention and Control (IPC) Guidelines. It is recommended that each office identify an infection control coordinator (dentist or designate/s). The duties of the coordinator are to oversee the infection prevention and control practices of their offices. **Annex 1**

In this document, the following assumptions have been made:

- The terms "OHCP" and "staff" are used interchangeably. "Staff" encompasses all persons conducting activities within or associated with dental offices, and includes dentists, dental hygienists, dental assistants, anesthetists and other support persons.
- The term "dental office" includes any facility in which oral care is provided, such as traditional dental practices, community and school-based dental clinics, and collective living centres and other institutional settings.

Other key revisions in this document:

These four guiding principles have been used to organize this document:

- Take action to stay healthy
- Avoid contacting blood/body fluids
- Limit the spread of contamination
- Make objects safe for use

- **New vocabulary**: definitions included in Glossary
- **Requirements** are best practices that are based on science and will be identified as a MUST in this document.
- **Recommendations** are based on the fact that there is an expectation by the public that the level of care and patient safety provided in a clinical office setting is equivalent to that provided in a hospital setting.
- Recommendation to acquire manufacturers' instructions for use (MIFUs) prior to purchase and prior to reprocessing
- Encourage the development of staff immunization policy
- Encourage Hand Hygiene Audit Program
- Management of disinfection for intraoral prosthesis and appliances before and after care
- Management of water quality for dental unit waterlines
- Recommend use of instrument dryer for drying lumens
- Recommend use of borescopes for cleaning verification of small diameter lumens
- Removal of sterilization using dry heat
- Aseptic presentation of sterile instruments at point of care
- Traceability of reprocessed instruments
- Guidance during surgical procedures
- Chairside instrument sharpening protocol

1.1.2 Intended use

This MDA document of practices describes the minimum requirements that all OHCPs must meet to deliver dental care in a safe environment. This document also provides recommended practices to provide optimal oral health care.

Every dental healthcare professional is responsible to be aware and comply with infection prevention and control best practices.

This document is intended to be used by all OHCPs for the safe delivery of dental care in various healthcare settings, including but not limited to, community clinics, hospital based dental clinics, private offices and educational institutions involved in the delivery of dental care.

Please see **Annex 2 and 3** for a list of required and recommended policies.

This document has been based on published research findings and expert opinion. This document is a fluid working document that will be updated from time to time and supported by scientific evidence.

1.2 Ethical Considerations

Oral healthcare professionals are prohibited from discriminating against any persons, including those with diagnosed infectious diseases. This includes using extraordinary and unnecessary infection control practices or other measures that are not used for all patients.

For example, Human Rights Legislation (Canada and Manitoba) recognizes persons living with AIDS or HIV-related illness as disabled.

It is every dentist's responsibility to ensure that proper safeguards are in place for a culture of safety in their workplace. Staff should be encouraged and supported to report all workplace related injuries. An assessment of transmission risk must be conducted each time the patient presents for treatment, which will include a thorough medical history review.

Point of Care Risk Assessment (PCRA)
A PCRA is an activity whereby a healthcare worker (HCW) in any healthcare setting in a continuum of care

1. Evaluates the likelihood of exposure to an infectious agent
    a. or a specific interaction
    b. with a specific patient
    c. in a specific environment (e.g., single room, hallway)
    d. under available conditions (e.g., no designated hand hygiene sink)
2. Chooses the appropriate actions or PPE needed to minimize the risk of exposure for the specific patient, other patients in the environment, the HCW, other staff, visitors or contractors, etc. (Preventing the Transmission of Infection in Healthcare - MHSAL)

Point of Care Risk Assessment (PCRA)
https://www.gov.mb.ca/health/publichealth/cdc/docs/ipc/rpap.pdf

1.2.1 Duty to Notify

1.2.1.1 Healthcare provider self-reporting

It is the responsibility of all regulated OHCPs to know their serologic status.

Regulated OHCPs who know they are infected must notify their regulatory body of their status and may be restricted from performing exposure prone procedures (EPP).

A written protocol is required for staff who know they are infected with bloodborne diseases, e.g., HIV, hepatitis C, and/or hepatitis B.

1.2.1.2 Reporting a patient with a communicable disease

When a patient is diagnosed with a reportable communicable disease, the dentist must ensure that appropriate notification requirements to Manitoba Health are followed if they have not already been reported, and that the patient has been referred to a physician.
The Public Health Act – Reporting of Diseases and Conditions Regulation [Schedule B]
https://www.gov.mb.ca/health/publichealth/cdc/protocol/mhsu_0013.pdf Annex 4

1.3 Education, training and compliance

It is the dentist's responsibility to ensure that staff is appropriately trained in IPAC procedures, and that necessary supplies and equipment are available and fully operational. Staff members are monitored for compliance and retrained based on performance gaps and lack of compliance using the most current version of the MDA IPAC practices document.

This document provides direction for what should or must be done. All OHCPs should understand how these practices are carried out in their facility. Hand hygiene audits are strongly recommended to ensure compliance and requirement for training.

1.3.1 Infection Prevention and Control Coordinator (IPACC)

It is strongly recommended that each office identify an IPACC (dentist or designate). See **Annex 1** for a suggested list of IPACC duties.

1.3.2 Policies

Policies are developed when there is a requirement in this document to do so and if there are choices available for tailoring in individual offices. It is recommended that offices take a collaborative team approach.

1.3.3 Eating and drinking

Eating and drinking must not occur in operatories, sterilization areas and in-office dental laboratories. Food and drink must not be stored in patient walkways nor in refrigerators dedicated for biomedical wastes, drugs and other supplies.

1.3.4 Environmental and structural considerations

For practices that may be renovating or building new facilities, consultation with a contractor that is familiar with CSA-Z800 is recommended. For additional information on design principles in the MDR area for new office builds or renovations, see **Annex 5**.

Consideration should be given to the following:

1.3.4.1 Materials

For all areas of the office, choose materials for work surfaces that are flat, smooth, nonporous, cut resistant, seamless, and can be cleaned and disinfected frequently. Walls and floors should be constructed of materials that will withstand frequent cleaning and high humidity, and walls adjacent to areas that experience frequent cleaning should be protected with water barrier materials.

1.3.4.2 Design principles in the medical device reprocessing (MDR) area

- There must be a central reprocessing area and it must be separated from patient care.
- The traffic and workflow in the MDR area must be one-way and continuous.
- PPE used in the MDR area is stored to prevent contamination from aerosols.
- Designated hand wash sinks or alcohol-based hand rub stations are provided at the entrance and exit of the contaminated area
- Physical separation or spatial separation of at least one metre should exist between the final rinse sink and (wet) clean instruments.
- Adequate storage space must be available for materials and equipment used for packaging and monitoring.
    - Storage for materials is appropriate to meet MIFUs for heat and humidity.
    - Storage of sterile items, whenever possible, should be separate from the reprocessing area. When there is no other space available, sterile items must not be in the contaminated area.
    - Storage of sterile instruments should not be in treatment areas. However, if no other space is available, it must be stored in an enclosed area to prevent contamination from aerosols.

1.3.4.3 Ventilation and air changes in reprocessing areas

- Ventilation and air handling systems should move air from the clean side of the reprocessing area to the decontamination side.
- The use of fans for cooling must not be used in reprocessing or in the clinical treatment area as fans deposit dust and airborne transmitted microorganisms.

1.3.5 Purchasing medical/dental devices

Only instruments and devices that have been manufactured and sold with the intention for use in a healthcare setting and used according to their intention must be purchased for use in the dental office. Medical/ dental devices must not be modified without Health Canada approval.

1.3.6 Health Canada approval for instruments, devices and equipment used in healthcare

All medical devices purchased for use in direct patient treatment in Canada must meet the requirements of Health Canada's Medical Devices Regulations.

To ensure that a product has been licensed, consult the following prior to purchasing:

- For Class 1 devices - Medical Device Establishment License (MDEL) listing
- For Classes 2, 3, and 4 - Medical Device Active License Listing (MDALL)

1.3.7 Risks of buying medical devices from the internet and/or previously used

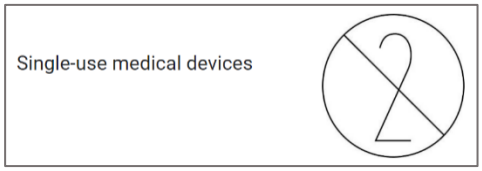
There are risks involved with purchasing a medical device from a source other than an authorized dental distributor. Purchasing a medical device from a source that is not trustworthy could result in the following:

- Procurement of a device that does not meet Health Canada's requirements for safety, effectiveness and quality, and may not have the required Health Canada licence
- Procurement of a product that has been recalled because of safety concerns
- Procurement of a counterfeit device or a lower quality product falsely labelled as being a higher quality brand
- Procurement of a product that has not been stored properly (some materials must be refrigerated until used, while others should never be frozen or exposed to heat) or for how long (and the product is past its best before date)
- A used medical device may have parts missing, no warranty and/or no instructions, as well as safety issues related to previous use and cleanliness.

1.4 Manufacturer's Instructions for Use (MIFU)

Request validated (if available) MIFUs prior to purchase. At the time of printing this document, the reader should note that not all MIFUs are validated.

Only purchase instruments, devices, and equipment where MIFUs are provided, unless they are single-use items only.



Offices must create a device inventory with accompanying device-specific validated (if available) MIFUs for reprocessing.

Single-use devices that do not come with validated MIFUs must not be sterilized in the dental office setting. This includes disposable cotton products such as gauze, cotton rolls, cotton pellets and cotton tipped applicators. When single-use items are required sterile and do not come with validated MIFUs, they must be purchased sterile.

1.5 Principles of Infection Prevention and Control

1.5.1 Chain of infection

Diseases are transmitted when an infectious agent exits the source through a portal of exit and enters the susceptible host through a portal of entry.

The transmission occurs directly when there is no intermediary. When there is an intermediary, either an

inanimate object (fomite) or an animate object (vector), this is known as indirect transmission, also known as cross-contamination.

1.5.2 Modes of transmission

An infectious agent may be transmitted from its natural reservoir to a susceptible host in different ways. The classification of modes of transmission are as follows:

- Direct
  - Direct contact
  - Droplet spread
- Indirect
  - Airborne
  - Fomite (surface)
  - Vector borne (mechanical or biologic)

1.5.3 Routine practices

Routine practices are the minimum infection prevention practices that apply to all patient care, regardless of suspected or confirmed infection status of the patient, in any setting where healthcare is delivered. These practices are designed to protect both the patient and OHCP from transmission of disease.

1.5.4 Transmission-based precautions

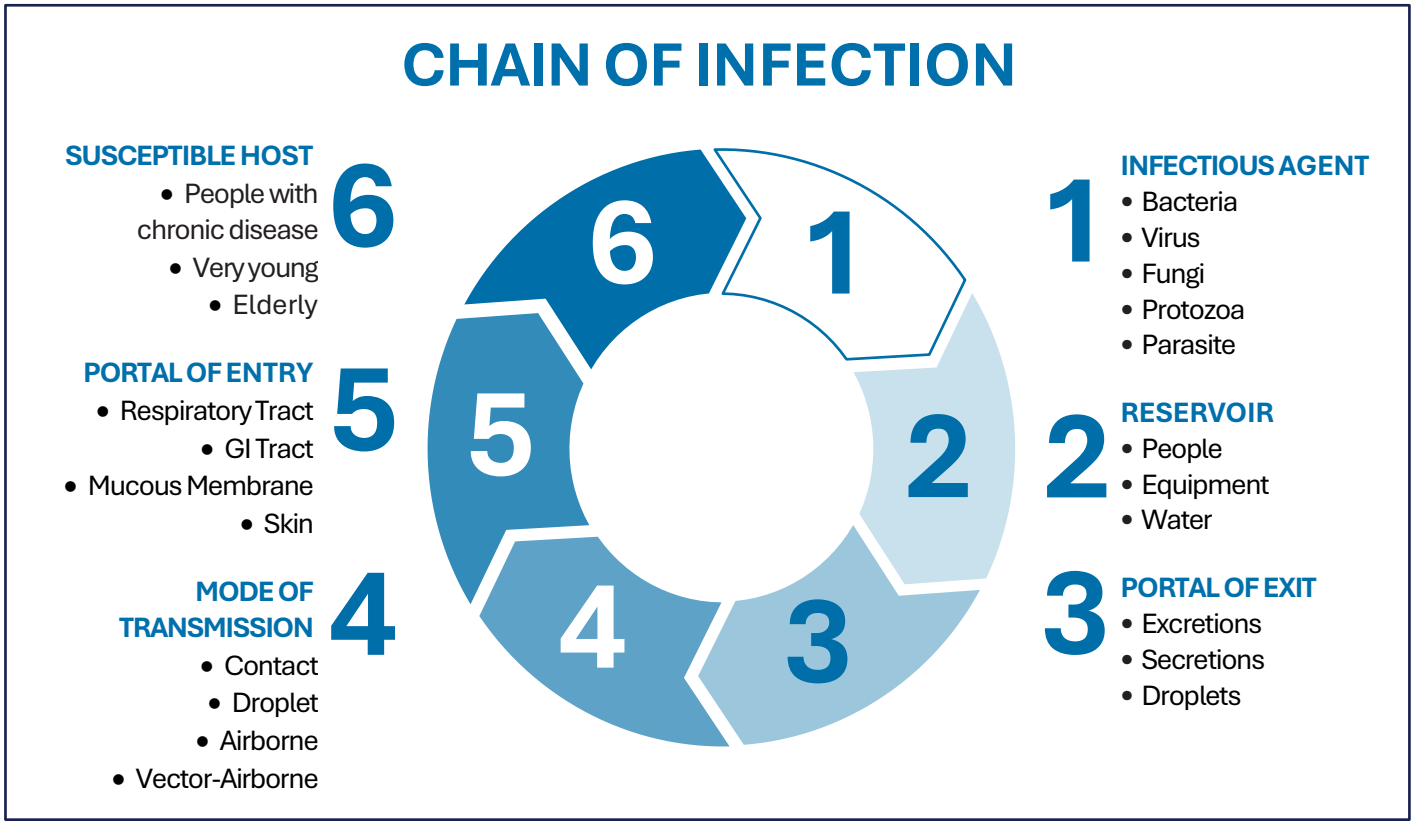
These are additional set of practices (contact, droplet, airborne) that apply to patients with documented or suspected infection or colonization with highly transmissible or epidemiologically important pathogens for which precautions beyond the routine practices are needed to interrupt transmission in healthcare settings. The MDA, in collaboration with government authorities, will provide guidance when required.
https://www.canada.ca/en/public-health/services/publications/diseases-conditions/routine-practices-precautions-healthcare-associated-infections.html

1.5.5 Guiding principles

Routine practices have been allocated into the following four guiding principles and used to organize this document:

- **Take action to stay healthy**
- **Avoid contacting blood/body fluids**
- **Limit the spread of contamination**
- **Make objects safe for use**

Figure 1: Chain of Infection
https://www.niinfectioncontrolmanual.net/about-basic-concepts/



2.0 TAKE ACTION TO STAY HEALTHY

Pathogenic agents may occur in the mouth as a result of four basic conditions: bloodborne diseases, oral diseases, systemic diseases with oral lesions, and respiratory diseases.

2.1 Occupational Health and Safety Requirements and Workplace Hazardous Materials Information System (WHMIS)

Employees must work in compliance with the Act and its regulations, and use or wear any equipment, protective devices or clothing required by the employer.

Employers are responsible for ensuring the safety and health of workers and others in the workplace.

Under the Manitoba Workplace Safety and Health Act and Regulation 2020, there is a duty for an employer to establish written procedures for the health and safety of employees. These procedures may include, but are not limited to, the following:

- safe work practices and working conditions
- proper hygiene practices and the use of hygiene facilities
- control of infections

Employers are obligated to keep WHMIS documents accessible in their workplace. Workplace Hazardous Materials Information System (WHMIS): A Guide to the Legislation is available at:
https://www.gov.mb.ca/labour/safety/index.html

2.2 Work restriction policies for healthcare providers

Offices should have policies regarding exclusion of healthcare providers with a communicable disease. **Annex 6**

2.3 Immunization

It is recommended that offices have a written immunization policy.

Manitoba's Workplace Safety and Health Act and Regulation 2020, Section 39 - Health Care Facilities, provides information on the employers' responsibility to develop and implement safe work procedures in accordance with sections 39.3 to 39.6; including vaccination. The following is excerpted from the full document, found at the link below:
https://www.gov.mb.ca/labour/safety/pdf/whs_workplace_safety_act_and_regs.pdf

39.3(1) If a worker at a health care facility may be exposed to infectious materials, an employer must develop and implement safe work procedures to eliminate or, so far as is reasonably practicable, reduce the worker's risk of exposure to infectious materials.

39.3(2) The safe work procedures on infectious materials should include the following:

(a) procedures for storing, handling, using and disposing of infectious materials;
(b) procedures for identifying workers at the workplace who may be exposed to infectious materials;
(c) infection control measures at the workplace, such as:
- vaccination,
- engineering controls,
- personal protective equipment,
- personal hygiene,
- management of the environment and equipment,
- patient accommodation,
- precautions for blood-borne pathogens, and
- infection control practices based on specific modes of transmission that may be used in situations where certain diseases or micro-organisms require extra caution

All OHCPs must know their personal immunization status and ensure that it is up to date.

HCWs should follow the Government of Manitoba-recommended immunization protocol.
https://www.manitoba.ca/health/publichealth/cdc/div/schedules.html

Employers need to be aware of immunization recommendations from the Canadian Immunization Guide for health care workers. Employers have a duty to inform workers about recommended immunizations.
https://www.canada.ca/en/public-health/services/publications/healthy-living/canadian-immunization-guide-part-3-vaccination-specific-populations/page-11-immunization-workers.html#p3c10t1

2.4 Patient screening

A medical history form should request sufficient information to provide a good overview of the patient's current health and health history that may affect patient safety during dental care.

A PCRA should be performed before each interaction with the patient in order to determine the interventions that are required to prevent the transmission of infection.

If your office commonly treats patients who are systemically ill with diseases spread through airborne transmission, fit-tested N95 masks should be used when providing treatment and Transmission Precautions must apply. **https://www.canada.ca/en/health-canada/services/drugs-health-products/covid19-industry/medical-devices/personal-protective-equipment/medical-masks-respirators/health-professionals.html**

Check government websites to learn about any health advisories. Ask patients who appear ill if they have travelled to a country with a health advisory.

2.5 Cough and sneeze etiquette

Instructions should be available on cough and sneeze etiquette for patients and staff. It is recommended that a poster for cough and sneeze etiquette be posted in the waiting room and staff room. **Annex 7**

2.6 Disease management in the dental office

Patients infected with active communicable disease (e.g., influenza, TB, "cold sore"), should be assessed to determine if their needs are non-urgent, urgent or emergent. Patients infected with an acute infectious respiratory illness such as influenza and who have urgent or emergent needs should be managed pharmacologically until they are no longer ill, if at all possible.

2.6.1 Patients with Airborne Infectious Disease

Offices should develop written instructions for OHCPs who have contact with patients with airborne infectious disease. The patient's emergent needs must be attended to using Transmission Precautions and the operatory must not be used for further patient care if aerosols have been generated until sufficient time has elapsed for air changes to remove infective particles.

Elective dental treatment should be deferred until a physician or appropriately designated public health official confirms that the patient is no longer infectious.

Routine Practices and Additional Precautions for Preventing the Transmission of Infection in Healthcare Settings
For reference see Table 4, pages 108-160
https://www.canada.ca/en/public-health/services/publications/diseases-conditions/routine-practices-precautions-healthcare-associated-infections.html

2.6.2 Herpes Simplex

There should be a policy surrounding elective care for patients who exhibit what is commonly termed as "cold sores". Delaying care until the lesions are completely healed should be considered.
https://pmc.ncbi.nlm.nih.gov/articles/PMC7132458/

2.6.3 Bloodborne disease

An office culture of safety should be adopted, where reporting is encouraged and the use of safe practices for working with blood will help minimize occupational exposure.

Healthcare professionals who are diagnosed with bloodborne diseases must follow the guidelines for practice from the Public Health Agency of Canada (PHAC) document: "Guideline on the Prevention of Transmission of Bloodborne Viruses from Infected Healthcare Workers in Healthcare Settings"
https://www.canada.ca/content/dam/phac-aspc/documents/services/infectious-diseases/nosocomial-occupational-infections/prevention-transmission-bloodborne-viruses-healthcare-workers/guideline_accessible_aug-2-2019.pdf

2.6.3.1 Hepatitis B (HBV)

There should be a policy regarding HBV immunization for all staff.

2.6.3.2 Hepatitis C (HCV)

There is no vaccine or post exposure treatment available for Hepatitis C, however, there are antiretroviral agents to treat HCV by lowering or eliminating the detectable viral load in an infected person.

2.6.3.3 HIV/AIDS

There is no immunization to protect against HIV, although post-exposure prophylaxis is available and, if deemed appropriate, after an exposure is ideally provided as quickly as possible (within two hours is ideal).

There are new antiretroviral agents to treat HIV by lowering or eliminating the detectable viral load in an infected person.

Regulated health professionals must also follow the guidance of their regulatory body.

2.6.4 Human Papilloma Virus (HPV)

The use of vaccines is encouraging and dentists should consider discussing HPV vaccinations with their patients as HPV 16 and 18 are associated with oropharyngeal cancer.

2.6.5 Creutzfeldt-Jakob Disease

The risk of prion transmission via non-surgical instruments, including endodontic instruments and devices used on at-risk, asymptomatic patients is negligibly low, and therefore, such instruments can be routinely reprocessed. See page 6 on the link below for more information.
https://www.canada.ca/content/dam/phac-aspc/migration/phac-aspc/nois-sinp/pdf/cjd-eng.pdf

2.7 Guidelines for the identification of patients who may require antibiotic prophylaxis before dental procedures

The Canadian Dental Association supports the American Heart Association's guidelines for antibiotic prophylaxis prior to dental procedures to prevent infective endocarditis.
http://www.cda-adc.ca/en/about/position_statements/infectiveendocarditis/

Additionally,
https://www.rcdso.org/en-ca/rcdso-members/dispatch-magazine/articles/6233

2.8 Prevention of prosthetic joint infection

Prophylactic antibiotics are not recommended for patients with prosthetic joint implants prior to dental procedures to prevent prosthetic joint infection.

In cases where antibiotics are deemed necessary, it is most appropriate that the orthopedic surgeon recommend the appropriate antibiotic regimen and, when reasonable, write the prescription.

CDA Consensus Statement:
Dental Patients with Total Joint Replacement
https://www.cda-adc.ca/en/about/position_statements/jointreplacement/

2.9 Antibiotic stewardship

Antibiotic stewardship is the judicious and appropriate use of antibiotics through appropriate:

- Prescribing based on diagnosis
- Correct dosing
- Duration of therapy
- Route of administration for the selected antibiotic

https://cahd-acdh.ca/antibiotic-stewardship/why-is-antimicrobial-stewardship-important-for-dentist

2.10 Hand hygiene

Hand hygiene is the single most important IPAC practice. Staff must be provided instructions for correct hand washing and correct alcohol-based hand rub (ABHR) use.

Hand hygiene must also be performed outside of the operatory whenever the hands have become contaminated with blood, saliva or other body fluid directly or indirectly in the dental laboratory, in the reprocessing area, and following cleaning other areas of the dental clinic.

2.10.1 Effective hand hygiene techniques

2.10.1.1 Handwashing using soap and water

Hands must be washed with soap and water to remove visible soil. Routine use of antimicrobial soaps is not necessary. Bar soaps must not be used.

Products purchased for use in Canadian healthcare settings should have either a Health Canada Drug Identification Number (DIN) or a Natural Product Number (NPN).

Surgical hand hygiene must be performed with an antimicrobial soap with residual antimicrobial activity.

Refillable soap dispensers must not be topped up. They are to be cleaned, rinsed, dried, and then refilled according to MIFUs.
http://publications.gc.ca/collections/collection_2012/aspc-phac/HP40-74-2012-eng.pdf

Hand wipes may be used as an alternative to soap and water when hands are visibly soiled and running water is not available. Use of wipes in this instance should be followed by an ABHR and hands should be washed as soon as a suitable hand washing sink is available. After washing, hands must be thoroughly rinsed and dried using single-use disposable towels.

Standing water must not be used when rinsing hands after washing.

Table 1: Schedule of hand hygiene while providing patient care

Procedure	Rationale
Upon entrance to operatory	• To prevent contamination of decontaminated clinical contact surfaces and/or when handling charts, viewing analogue radiographs, or accessing computer • To reduce risk of contamination of other masks when retrieving mask
Immediately before donning gloves	• To remove transient microorganisms transferred to skin during placement of mask and eyewear • To prevent contamination of gloves during access and donning • To reduce concentration of transient microbes on skin as the glove environment offers an ideal growing medium for microorganisms during patient care
After glove removal	• Either immediately following glove removal and also following eyewear and mask removal OR following removal of gloves, mask, and eyewear. Choice will depend on perceived risk due to amount of body fluid transferred to gloves during treatment
Prior to leaving operatory	• To reduce risk of transfer of transient microorganisms from the contaminated treatment area to general clinic setting

Figure 2: How to perform hand hygiene using soap and water

Table 2: Technique for handwashing

1. Avoid use of wrist and hand jewelry.
2. Running water of a comfortable temperature should be used to wet hands (not hot water).
3. Enough soap should be used to lather all surfaces of the hands, including fingers, fingertips, between fingers, palms, backs of hands and thumbs, and base of thumb.
4. The palms and backs of each hand should be rubbed vigorously, interlocking and interfacing fingers to ensure finger and thumbs are rubbed to remove visible soil and/or organic material (should take 15 to 30 seconds).
5. Hands should be rinsed thoroughly in a downward position under running water.
6. Hands should be dried thoroughly by patting with a single-use towel; electric hand dryers and multi-use hand towels should not be used in clinical areas.
7. Manual faucets should be turned off with paper towels so that hands are not re-contaminated in the process.
8. Skin products should be applied regularly to maintain healthy intact skin.

Table 3: Technique for using alcohol-based hand rubs

1. Long sleeves should be rolled up.
2. Product should not be applied to wet hands, as they will dilute the alcohol.
3. Manufacturer's instructions should be followed.
4. Enough product should be applied to wet the fingers, finger tips, between fingers, palms, backs of hands, thumbs and base of thumb.
5. All hand surfaces should be rubbed until product has dried.

2.10.1.2 Alcohol-based hand rubs (ABHR)
Only products specifically designed as ABHR with DIN or NPN, and with 70-90% ethanol formulation must be used.

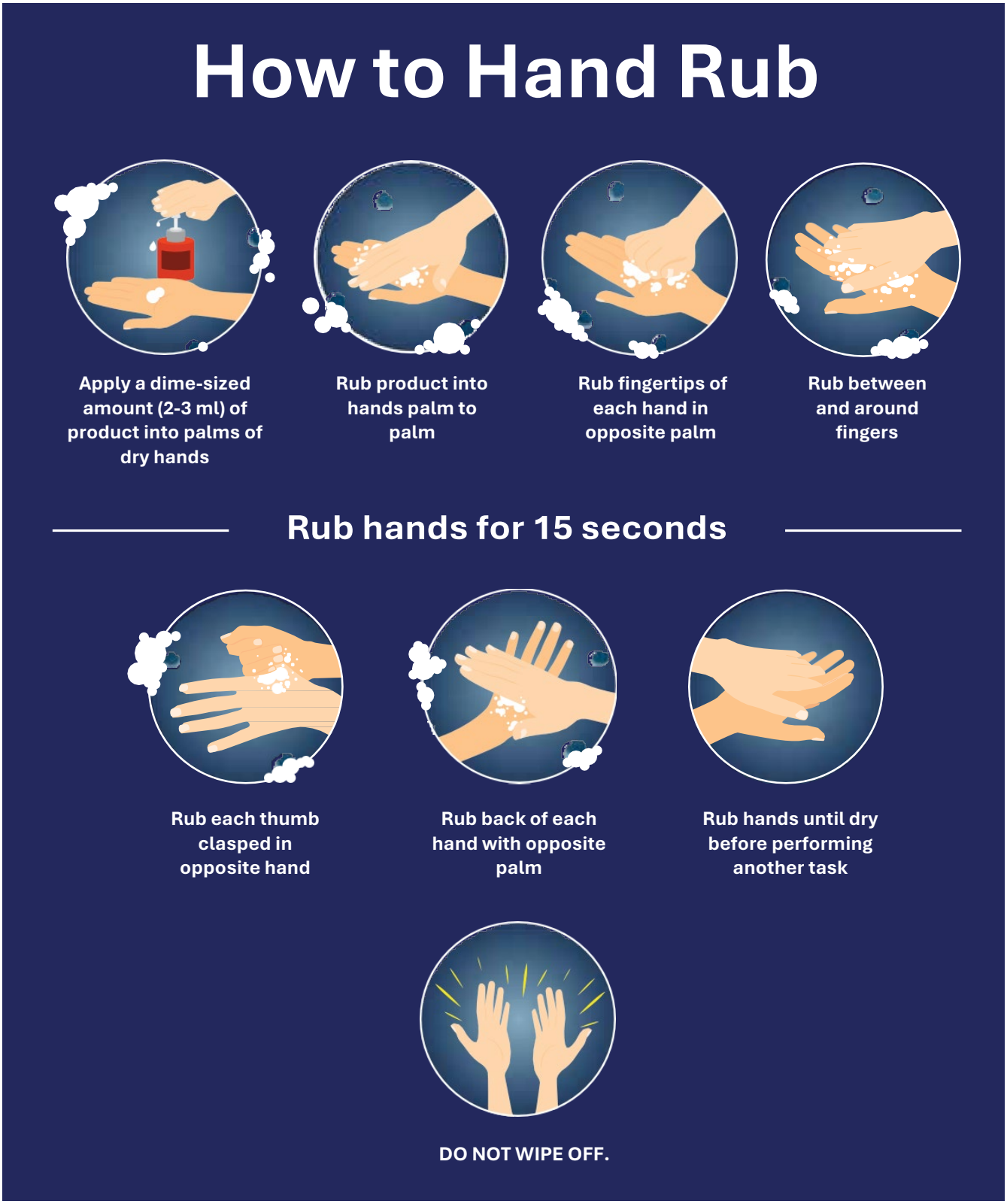
Products will have an expiration date and no recall notice from Health Canada.
http://publications.gc.ca/collections/collection_2012/aspc-phac/HP40-74-2012-eng.pdf

https://www.canada.ca/en/health-canada/services/drugs-health-products/disinfectants/covid-19/hand-sanitizer.html

2.10.1.3 Hand hygiene audits
Offices should perform hand hygiene audits at least yearly or based on staff compliance. A goal of 100% compliance is desired for all team members. **Annex 8**

2.10.1.4 Fingernails and jewelry
Offices should provide instructions about fingernails including length. Nail polish, artificial nails, hand and wrist jewelry should not be worn.

Figure 3: How to perform hand hygiene using alcohol-based hand rubs



2.10.1.5 Latex sensitivity and allergies

Latex is commonly used in the manufacture of gloves and a large number of products employed in dental care, including rubber dams, prophylaxis cups, orthodontic elastics and some medication vials. Skin irritations can be confused with true allergy to latex.

Adverse reactions involving latex gloves range from mild to serious and can include:

- irritant contact dermatitis;
- delayed hypersensitivity reactions (allergic contact dermatitis);
- immediate allergic reactions.

Mild contact dermatitis can be managed by changing the types or brands of soap, towels or gloves, rinsing hands thoroughly after washing, and using proper hand hygiene practices.

Delayed hypersensitivity reactions require referral to a medical dermatologist, and using washed (powderless) low-protein latex gloves or non-latex gloves.

Immediate allergic reactions such as anaphylactic shock can necessitate emergency medical care and subsequent referral to a medical dermatologist. Offices are encouraged to develop a policy on their use of latex for staff and patients, as well as using only non-latex, powder free gloves and the avoidance of all latex products in the workplace and at home.

A question regarding latex allergy should be included on the medical history questionnaire. Dental patients with true latex allergy may react to common products (e.g. masks, gloves, rubber dams, prophy cups, elastics, and certain medication vials).

2.11 Exposure management and post-exposure prophylaxis

Offices must have a written exposure plan to manage injuries in the dental office. It should address the following:

Assess

- need for first aid or other medical assistance
- whether the injury is a significant exposure
- team member's medical history

Administer First Aid or activate EMS

- provide care and document

Identify and report

- source person testing protocol
- report the injury to IPACC or designate
- facility that will carry out testing, treatment and follow up for a significant exposure
- IPACC will contact the designated treating facility/ department to inform of a significant exposure to ensure timely intervention
- document in employee file and/or chart

Transport

- who will transport the injured party and patient (if required, see source person testing protocol)

Cost

- who will pay for travel, treatment and follow up, if required

The injured worker will be given contact information for further care or follow up counseling from their treating healthcare facility.

The injured team member will provide IPACC or designate with information on the treatment received, cost and plan for follow up.

2.11.1 Steps in managing a significant exposure

2.11.1.1 Assess

1. Assess the extent of the injury; remove gloves or immediate clothing.

2.11.1.2 Administer First Aid and activate EMS

2. First aid principles will apply.
3. Wash the area, including the wound using antimicrobial soap and water. Allow the area to bleed normally. Do not promote bleeding by squeezing the wound. This may introduce pathogens by negative pressure and/or promote tissue damage.
4. Exposed eye, mouth or nose mucosa should be flushed with copious amounts of water using an eyewash station.
5. Do not apply caustic agents such as bleach or antiseptic into the wound.

2.11.1.3 Identify and Report

6. Report the injury to the IPACC who should then initiate the required documentation and protocol following injury. The protocol should include examination of the instrument involved during the exposure to determine the amount of blood transferred, if possible.

2.11.1.4 Transport

7. Transportation to a hospital or urgent care center which has been predetermined.
8. Communicate with the source person to review medical history. Transport to the hospital or urgent care center for testing if required.
9. Risk counselling should be made available. Counselling will be needed most if the source, the amount of exposure to blood and the depth of the injury are unknown.
10. When presenting at the designated facility, state that this is a significant exposure and provide particulars of the work place injury.

2.11.1.5 Cost

Documentation should include:

- The name of the exposed OHCP
- The date and time of the exposure
- A description of the exposure
- The name and health status of the source person
- Referral and follow-up for counselling and post-exposure management as necessary. **Annex 9**

2.11.2 Post-exposure prophylaxis (PEP)

Every significant exposure must be evaluated by a qualified medical professional to determine the risk of transmission of bloodborne pathogen. The assessment of risk and transmission will be based on:

- the type and amount of body fluid or tissue involved
- the nature of the exposure (i.e., percutaneous injury, mucous membrane or non-intact skin exposure)
- known infection status of the source
- the susceptibility of the exposed person

If the need to administer PEP is determined to be necessary, it should be done as soon as possible after the exposure.

Anti-retroviral drugs to treat an HIV exposure are ideally provided one to two hours after the exposure.

- The Government of Manitoba has expanded its coverage for HIV PEP medication and will provide coverage for the full 28-day course of PEP medication.
- Clients who have active Manitoba Health coverage and who do not have 100% coverage through an insurance program (e.g., federal drug program, Employment and Income Assistance, private insurance program, eligible for Workers Compensation claim), will be eligible to receive PEP medications free of charge.
- Clients will still receive a three-day starter kit if presenting at an Emergency Department or at other participating sites, with additional medications provided depending on the situation.
- The PEP prescription form has been updated to include program eligibility and the Pharmacy Claims Submission Procedure. It can be found on the Public Health website at:

https://www.gov.mb.ca/health/publichealth/cdc/protocol/hiv_prescription.pdf

2.12 Exposure prevention

Regular documentation as required for OHCP injuries should be completed by the IPACC to determine types of injuries, and if these injuries can be reduced through focused training, use of engineering controls, or through use of work-practice controls.

3.0 AVOID CONTACTING BLOOD/BODY FLUIDS

3.1 Personal Protective Equipment (PPE)

Manitoba Legislation (Workplace Health and Safety Act) requires that office owners protect their workers. Offices must comply with MDA and public health guidelines regarding the use of worker and PPE in the dental office. The choice of PPE is dependent on risk which is determined by the procedure and public health advisories.

Documented procedures for adjustment of PPE prior to and during treatment should be developed to limit cross contamination. OHCPs must avoid touching their face, hair, and other PPE with their gloved hands following placement.

PPE must be removed prior to leaving the operatory. Protective clothing may remain on if deemed appropriate, in compliance with office and public health protocols.

3.1.1 Protective clothing for routine practices

Protective clothing is worn to protect the skin from potentially infectious fluids. When short sleeved protective clothing is worn, hand hygiene must include cleaning the forearms to the elbow.

Protective clothing is changed at least daily or more frequently if contaminated with visible soil or penetrated by blood or other potentially infectious fluids.
Dental health care professionals are encouraged to wear "scrubs".

- When scrubs are worn as a uniform, they are donned and doffed in-office, and covered by other protective clothing during treatment.
- Clothing or scrubs may be laundered in office, by a laundry service or taken off and placed in a bag to launder at home.
- Laundering daily is recommended.
- Wearing of uniforms or scrubs outside the dental office is discouraged.

Davidson, T., Lewandowski, E. Smerecki, M. et al. (2017). Taking your work home with you: Potential risk of contaminated clothing and hair in dental chair and attitudes about infection control. CJIC, 32(3): 137-142.

3.1.1.1 Gowns

Offices using disposable gowns must ensure the gown used is appropriate for fluid resistance and dependent on the clinical procedures being performed.

Gowns should have long sleeves to protect the wrists and forearms. They should also cover the torso from neck to knees and wrap around the back to prevent contamination of street the clothes.

Gowns, which are Class II medical devices, may be disposable or reusable. Repellency and pore size of the fabric affect blood and other potentially infectious materials (OPIM) penetration of the barrier and contribute to gown performance. Regardless of the material used to manufacture gowns, they must be resistant to liquid and microbial penetration. Several gown sizes should be available in oral healthcare settings to ensure appropriate coverage for all staff members. **Annex 10**

Surgical gowns should be changed between patients, as soon as possible when penetrated by blood or OPIM, and before leaving patient-care areas.

3.1.1.2 Masks

Written instructions for mask use should be available for the facility, identifying the appropriate mask for the clinical procedure being performed.

Surgical or procedural masks must cover the nose, mouth and chin and worn during patient care procedures. When a mask is used, it should be changed between patients or during patient treatment if it becomes wet. If your office commonly treats patients who are systemically ill with diseases spread through airborne transmission, fitted N95 masks should be used when providing treatment and Additional Precautions must apply.

A NIOSH-certified N95 respirator filters particles one micron in size, has 95% filter efficiency and provides a tight facial seal with less than 10% leakage. (IPAC Canada)

3.1.1.3 Protective eyewear

Protective eyewear must be worn by the dental team and patient. Appropriate protective eyewear includes: goggles, safety glasses or loupes that touch the top of the cheeks, and have top and side shields.

A face shield is required if prescription eyewear does not have top and side shields.

Protective eyewear must be cleaned and disinfected following MIFUs between patients and whenever it becomes visibly contaminated. When a face shield is worn, a mask is still required to protect against aerosols.

- Eyewash station
  Emergency eyewash equipment must be available and must meet the requirements identified in Safework Manitoba #104, Emergency Washing Equipment [Section III-C, Subject G-17]

https://www.gov.mb.ca/inr/publications/safe_workplace/section-iii/section-iii-c/pubs/g-17-emergency-eyewash-equipment.pdf

3.1.1.4 Gloves

Gloves are worn to protect OHCPs and patients from infection and injury. Hand hygiene must be performed immediately before donning gloves and after removing them. Gloves must be worn when direct or indirect contact with bodily fluids, mucous membranes, or non-intact skin (including rashes) is anticipated.

- New gloves must be worn for each patient and placed immediately before the activity for which they were intended.
- Gloves must not be worn outside any room or area where they are used.
- Once removed, they must be discarded immediately, not carried, nor placed into pockets.
- Gloves must not be washed or re-used.
- Double-gloving may be utilized but must be procedure-specific, not patient-specific.
- Utility gloves must be worn during any activity where there is risk of a puncture from a contaminated instrument or injury from chemicals. Follow MIFUs for reprocessing.

3.2 Order of placement or donning PPE

1. Protective outer clothing
2. Hand hygiene
3. Mask
4. Protective eyewear
5. Hand hygiene
6. Gloves

3.3 Order of removal or doffing PPE

Additional hand hygiene should be performed whenever there is suspected or actual contamination from body fluids during doffing.

1. Gloves
2. Hand hygiene
3. Protective eyewear
4. Protective outer wear
5. Mask
6. Hand hygiene

Donning Shared Health video:
https://youtu.be/B5ew8020fwc

Doffing Shared Health video:
https://youtu.be/Lly8DjGcvDM

Table 4: Gown level & clinical use

Barrier protection	Potential fluid level, spray or splash guidance (FDA)	Cross-reference for dentistry
Level 1 for minimal risk	Basic care, standard isolation, cover gowns for visitors, or for use in a standard medical unit	Examination, perio-probing, hand scaling, routine restorative dentistry or endodontic treatment with a rubber dam or simple extractions
Level 2 for low risk	Drawing of blood, suturing, in the intensive care unit (ICU), or a pathology lab	Spatter or aerosol generating procedures (AGPs) including those without a rubber dam, ultrasonic scalers, or dental prophylaxis. Complex extractions, perio-surgery and implant procedures
Level 3 for moderate risk	Arterial blood draw, inserting an intravenous (IV) line, while in the emergency room, or for trauma cases	Equivalent oral and maxillofacial procedures
Level 4 for high risk	Long fluid intense procedures, surgery when pathogen resistance is needed, or infectious diseases are suspected (non-airborne)	Equivalent oral and maxillofacial procedures

Table 5: American Society of Testing and Materials (ASTM) Criteria for Healthcare Mask Levels

Level	Clinical Use	**Fluid Resistance** (Increased resistance to fluid as pressure rises)	**Filtration** (Increased filtration as percentage increases)	**Breathability** (Increasing resistance results in less breathability)
1	For procedures producing low fluid, spray, or aerosol	80 mm Hg	95%	4 mm H2O/cm2
2	For procedures producing moderate fluid, spray, or aerosol	120 mm Hg	98%	5 mm H2O/cm2
3	For procedures producing high fluid, spray, or aerosol	160 mm Hg	98%	5 mm H2O/cm2

4.0 LIMIT THE SPREAD OF CONTAMINATION

4.1 Aseptic Technique Principles

OHCP's must understand the facility's protocols for preventing the spread of microorganisms using the following aseptic techniques. Anytime the chain of infection control is broken, stop treatment and replace the contaminated items with clean or sterile items.

4.1.1 Aseptic presentation of sterile instruments

Operatories must be set up as close to the start time as possible. Sterile instruments and devices should be opened in front of patients whenever possible. Outside of sterile packages are not handled with gloved hands that are used for patient care (outside is not sterile).

4.1.2 Unit dose principle for materials

- Dispense the projected amounts of disposables and materials. Disinfect the dispensers following care.
- Discard unused disposables including single-use materials that have been partially used.

4.1.3 Touching only patient and patient care items dispensed during treatment.

Touch as few surfaces as possible with contaminated gloved hands.

- When a surface cannot be disinfected, it must be protected with a medical grade barrier.
- PPE, personal clothing, skin or hair, or any operatory surfaces not involved with direct patient care are not to be touched once treatment gloves have been placed.

4.1.4 Removal of all storage containers from treatment area

If items are not removed, they must be decontaminated with other clinical contact areas following each patient.

4.1.5 Equipment barriers

The use of barrier protection, such as plastic wrap, foil, bags, or other moisture-impervious materials, is an important part of infection prevention and control.

After treatment of a patient, while still gloved, dental staff should remove all of the barriers and discard them. Once the gloves are removed and hand hygiene performed, dental staff should place clean barriers on the surfaces for the next patient.

Bib holders should be disposable or reprocessed according to MIFUs.

4.1.6 Reducing airborne bioburden

Consideration should be given to reducing airborne bioburden during aerosol generating procedures. This can be reduced through the use of:

- Pre-procedural mouth rinse
- Use of treatment barriers such as rubber dam and high-volume suction

4.2 Environmental disinfection

Chemical products used as disinfectants on environmental surfaces, inanimate objects, or for use on non-critical medical devices are regulated under Canada's Food and Drugs Act and Regulations. **Annex 11**

Offices need to perform a risk assessment to determine their needs for microorganism kill prior to the purchase of hard surface disinfectants. The use of the terms "low level" and "intermediate level" are no longer directive. Hospital level means "low level". The office needs to read labels to determine if the disinfectants they are choosing will meet their needs.

Disinfectant products approved by Health Canada will have two criteria:

1. DIN on the label: A computer-generated eight-digit number assigned by Health Canada to a drug or product prior to being sold in Canada.

https://www.canada.ca/en/health-canada/services/drugs-health-products/drug-products/applications-submissions/guidance-documents/disinfectants/summary.html

2. Disinfectant products must have four (4) Kill Claims on the label:
   - Mycobactericidal
   - Virucidal (enveloped and non enveloped viruses) – NOT Virucidal which means specific virucidal
   - Fungicidal
   - Bactericidal

OHCP's are encouraged to review the product labels prior to purchase to ensure these two criteria are met. **Annex 12**

4.2.1 Clinical Surfaces

Clinical contact surfaces can be directly contaminated from patient materials either by direct spray or spatter generated during dental procedures or by contact with dental healthcare practitioner's (DHCP) gloved hands. These surfaces can subsequently contaminate other instruments, devices, hands or gloves. Clinical surfaces must be

decontaminated (vigorous cleaning followed by disinfection) before the first patient of the day, following barrier removal, between patients, and following the last patient of the day using a disinfectant that meets the labelling requirements (provided above) and according to disinfectant MIFUs. Use of wipe-wipe method is preferred to spray-wipe-spray. Use of trigger sprayers is not recommended due to aerosol production and risk of inhalation. Surfaces must be clean first for disinfectants to effect inactivation or kill of microorganisms.

Equipment and disinfectant MIFUs must be followed to ensure compatibility and should be consulted prior to purchase.

PPE appropriate to the level of risk must be worn during environmental decontamination.

4.2.2 Housekeeping surfaces

Housekeeping surfaces, such as floors and walls, have a limited risk of disease transmission. Routine schedules and methods of cleaning housekeeping surfaces should be part of your IPAC policy and must occur when visibly contaminated. Toys and objects in the waiting room for patient use are also considered housekeeping surfaces. **Annex 13**

4.2.3 Cleaning up blood and bodily fluid spills on hard surfaces

Spills of blood and other body substances must be contained, cleaned and disinfected (see 4.2). When cleaning carpets is inadequate, replacement of flooring may be required. **Annex 14**

4.3 Dental laboratory asepsis

Effective communication and coordination between the dental facility and commercial dental laboratory is essential. Impressions, prostheses or appliances must be cleaned and disinfected before transport to the lab. Finished devices, prostheses and appliances delivered to the patient must be free of contamination. Keep paper prescriptions separate from wet impressions. **Annex 15**

4.4 Asepsis during dental radiography

Radiographic equipment (e.g. tube heads and control panel) must be cleaned and disinfected between patients and/or protected by barriers according to equipment MIFUs. Lead aprons must be handled with clean bare hands or new gloves. Aprons must be disinfected following use. If gloves are worn, they must be discarded. If equipment and lead aprons are stored less than 2 meters from aerosol generating procedures, aprons must be included with regular clinical surface cleaning following patient care when aerosols are produced.

Radiographic Image Receptor Positioning Instruments must be reprocessed following use. Photostimulable Plates (PSP's) barriers and Digital Sensors must be decontaminated according to MIFUs.

4.4.1 Disinfection of analogue film, no barrier

Analogue film without barrier must be disinfected using appropriate surface disinfectant following exposure.

- Expose films, drop film packets onto disinfectant wipe or disinfectant
- soaked paper towel or cloth
- Clean packets, drop onto new disinfectant wipe and disinfect
- Drop into clean paper cup without touching contaminated gloves to packets and allow correct contact time following disinfectant MIFUs. Remove and discard gloves, perform hand hygiene, transport and process film.

4.4.2 Disinfection of analogue film with barrier

Remove barrier from the film, dropping film onto a clean surface. Remove and discard gloves, perform hand hygiene, transport and process film.

4.5 Suction

Suction lines should be cleaned by purging with water between patients. Additionally, on a daily basis:

- Use an enzymatic cleaner or,
- Use a cleaner with a residual action, and
- Use according to MIFUs of unit manufacturer and manufacturer of cleaning product and amalgam separator MIFUs.

Suction traps should be cleaned or replaced daily according to MIFUs.

4.5.1 Saliva ejectors

OHCPs using saliva ejectors should instruct patients to avoid closing their lips over the saliva ejector tip as backflow could occur when patients close their lips tightly to evacuate oral fluids.

4.6 Amalgam separators

Amalgam hygiene is mandated federally.
All offices that place, alter or remove dental amalgam must have documentation on the installation, maintenance of unit and disposal of amalgam.

4.7 Dental Unit Waterlines (DUWL)

Standard operating procedures for the management of DUWLs should consist of:

- Monitoring through testing each DUWL, including ultrasonic scalers to maintain waterline quality.
- Management of failed tests for biofilm and E. coli/coliform

The biofilm count should be less than 500 cfu/ml, and the E. coli and total coliform counts must be zero. All members of the dental treatment team should be trained to interpret test results and understand the significance of high counts.

Sterile water or sterile saline delivered through sterile means must be used during surgical procedures that involve the incision, excision, or reflection of tissue that exposes initially sterile areas of the oral cavity. Clinical judgement will apply. Opened, unfinished bottles of sterile water and sterile saline must be discarded.

Consideration should be given to use of sterile water/ saline for pulpotomies.

4.7.1 General rules about monitoring and maintaining DUWL quality

Water quality must be monitored through testing. Testing should follow equipment and water quality/ monitoring products MIFUs.

A suggested testing regime would be to monitor:

- Monthly for each DUWL, and ultrasonic scaler until three consecutive monthly tests pass.
- Waterlines that do not pass must be treated and retested. Tests thereafter should be conducted every three months.

Testing should also occur when there is a noticeable change in water quality i.e., brown water, odor, or water main repairs.

4.7.1.1 Routine DUWL care

- Waterlines must be purged daily prior to treating patients, with no attachments to the waterline for two minutes or according to MIFUs. Waterlines must be purged for a minimum of 20 seconds following patient care.
- Disinfect the outside of exposed water bottles during operatory disinfection unless MIFUs state otherwise. Water bottles should be handled with clean hands or clean gloves. Avoid touching the pickup tube. If the pickup tube becomes contaminated from handling, clean it with a disinfectant that is safe for intraoral use according to unit MIFUs before replacing the water bottle.
- Continuous and intermittent (shock) disinfection of the water supply must follow equipment and water maintenance product MIFUs. This step cannot be achieved using direct plumbing supply (city or town water supply)
- Waterline heaters must not be used in a dental unit or in dental equipment.
- Dead legs in building plumbing and dental units should be identified and clamped.
- Follow MIFUs for end of day or extended-absence waterline shut-down procedures.

4.7.2 Boil water advisory

During a boil water advisory, the following precautions must be taken:

- Municipal water must not be delivered to the patient through DUWL.
- Alternative water sources that are delivered through closed delivery systems are used as long as the alternative source has been tested to demonstrate that it is safe.
- Patients must not rinse their mouths with tap water. Use bottled or distilled water that is known to be safe.
- Tap water can be used for hand hygiene so long as ABHRs are used immediately after hand hygiene. When hands are visibly soiled, they should be washed using bottled or distilled water and soap or, hand wipes can be used followed by ABHR.
- Water for instrument processing, including cleaning, rinsing and sterilizing, must be from a clean or sterile source.
- Postpone patient care if these conditions cannot be met.
- When the boil water advisory is cancelled, all incoming public water system lines, including any taps or other waterlines in the dental office, must be flushed for a minimum of 5 minutes.
  The dental unit waterlines in all dental units and equipment must be disinfected according to the manufacturer's instructions prior to use. If DUWL is sourced by municipal water, all water lines must be tested.
- There may be public health advisories that require further measures.

https://gov.mb.ca/sd/pubs/water/drinking_water/pr_5_factsheet_boil_water_advisory_3.pdf

4.8 Waste management

Waste from dental offices is divided into two categories: biomedical and general office waste. https://www.gov.mb.ca/sd/waste_management/hazardous_waste/index.html

4.8.1 Biomedical waste (anatomical and non-anatomical)

Biomedical waste must be handled and disposed of in a manner that avoids transmission of potential infectious microorganisms. Biomedical waste is hazardous waste and must not be disposed with regular garbage.

4.8.1.1 Anatomical waste (i.e., human tissue)
Anatomical waste, other than extracted teeth, must be separated and collected in a "red liner" bag that is labelled with the universal biohazard symbol and then stored appropriately and released only to an approved biomedical waste carrier for disposal. http://www.wrha.mb.ca/extranet/ipc/files/manuals/acutecare/Waste_Management_OD.pdf

4.8.1.2 Non-anatomical waste
(sharps and blood- soaked materials)

4.8.1.2.1 Sharps

- Sharps must be separated and collected in a puncture proof 'sharps' container labelled with the universal biohazard symbol. Once the container has reached the capacity designated by a line on the container or no more than ¾ full, it must only be released to an approved biomedical waste carrier for disposal.

4.8.1.2.2 Blood-soaked materials

- Blood-soaked materials are defined as those that release liquid or semi-liquid blood if compressed.
- Items that do not release blood when compressed are considered general office waste.
- Blood-soaked materials must be separated and collected in a "yellow liner" bag that is labelled with the universal biohazard symbol. If blood-soaked materials are to remain on site for more than four days, they must be stored like anatomical waste. Blood-soaked materials must only be released to an approved biomedical waste carrier for disposal.

4.8.2 General office waste

General office waste is no more infective than residential waste. Most soiled items generated in dental offices do not require any special disposal methods other than careful containment and removal. Disposal of mercury, silver, and lead are subject to provincial regulations and municipal bylaws. For further information regarding the disposal of these and chemical wastes from dental offices, refer to the MIFUs and requirements or bylaws in your municipality or city.

4.8.2.1 Handling of extracted teeth

- Extracted teeth are not classified as biomedical waste.
- Extracted teeth with amalgam fillings should be treated as mercury-containing waste and disposed accordingly.
- If being sent to a dental laboratory for shade or size comparisons, extracted teeth should be cleaned and disinfected.

5.0 MAKE OBJECTS SAFE FOR USE

Clients expect and require safe care regardless of where the procedure is performed, and standards of reprocessing shall be met in any setting where it is carried out. (IPAC Canada)

5.1 Medical device reprocessing

The dentist owner must ensure that staff who reprocess instruments and devices have adequate training to correctly perform all the steps of reprocessing. Staff who are not trained must not work without supervision. A review of processes and training should be conducted at least annually.

Requirements:
The reprocessing of instruments and devices used in the treatment of patients requires:

- Manufacturer's "validated" instructions for cleaning and sterilization
- Staff must have current knowledge of effective reprocessing methods, maintenance, monitoring, and documentation. OHCPs who reprocess instruments and devices must be trained or supervised by those who are trained in the complex tasks of reprocessing.
- Written standard operating procedures (SOPs) should be included in the office infection control manual for medical device reprocessing and provided to all staff. This would include policy development within the individual dental office for those issues where MDA allows choice.

One-way workflow

- There should be physical separation between the contaminated area and the clean area (between final rinse and drying area). Where spatial separation between the rinse sink or rinse basin

and clean instruments is not available, a physical barrier a physical barrier of 1 metre minimally should separate the two areas from the level of the work area producing splashes and spatter (CSA-Z8000)

- Ensures that each level of reprocessing, including cleaning, disinfection and sterilization, incrementally reduces the microbial load on medical devices being reprocessed. One-way workflow prevents contamination that would occur if items processed to a higher level came into contact with a lower-level- processed medical device or processing areas. (CSA Z314-18)
- Sinks used for instrument reprocessing must not be used as hand hygiene sinks. A sink or an ABHR station must be available at the entrance to and exit from the instrument cleaning area.
- When sterile instrument packages are stored in the clean part of the reprocessing section, hand hygiene must be performed prior to entering that area to obtain packages.

5.1.1 PPE for reprocessing

Staff working in the reprocessing area must wear appropriate PPE. During all stages of instrument reprocessing, OHCP must wear:

- protective outerwear appropriate to the task being performed and with fluid resistant gowns covering the front of body, at least to the knee, and arms to the wrist during activities where splashing is expected
- masks, appropriate to the need for fluid resistance
- protective eyewear: face shield preferred in the cleaning area and, at minimum, safety glasses during all other processes
- Bouffant cap
- puncture-resistant utility gloves when there is risk of injury from contaminated and/or sharp instruments
- treatment gloves when risk of injury from exposure to instruments is considered minimal
- consideration should be given to shoes that are enclosed front and back, non-skid, can be disinfected and sufficiently durable to protect the OHCP if an instrument should fall and strike the foot.

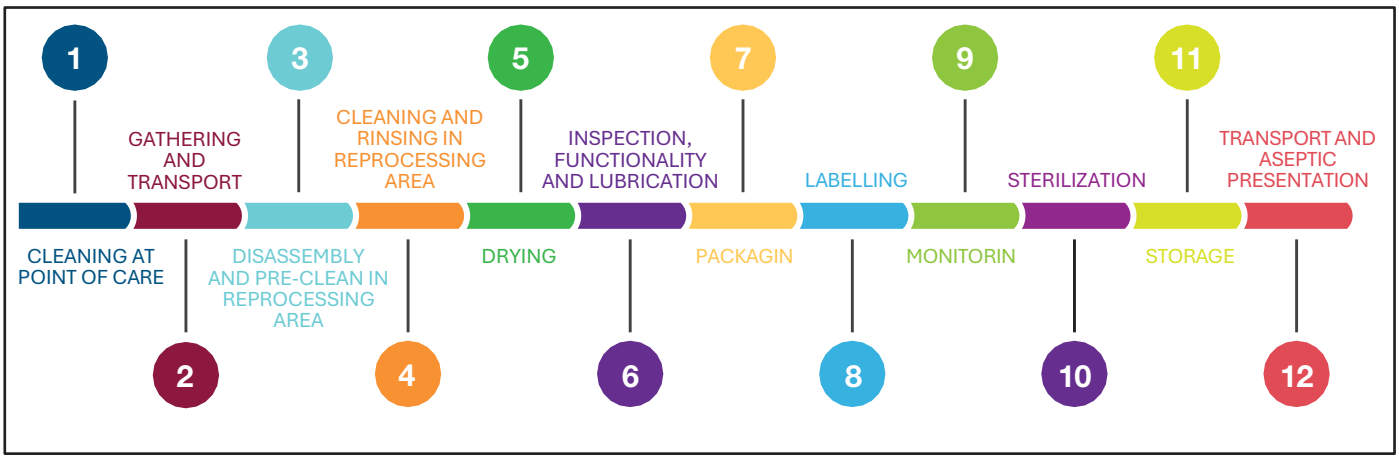
When devices are cleaned manually, using ultrasonics and/or automated washers, it is recommended that PPE used during cleaning is replaced with new PPE for the next steps in reprocessing (CSA Z314-18). This is done between the final rinse and the instrument drying stage. ~~Gowns and gloves for further steps are not required for devices decontaminated in washer/disinfectors.~~

~~PPE for other staff while in the reprocessing area will be determined by risk.~~

5.1.2 Instrument reprocessing steps (CSA Z314-18)

5.1.2.1 cleaning at point of care
5.1.2.2 gathering and transport
5.1.2.3 disassembly and pre-clean
5.1.2.4 cleaning and rinsing
5.1.2.5 drying
5.1.2.6 inspection, functionality testing, lubrication
5.1.2.7 packaging
5.1.2.8 labeling
5.1.2.9 monitoring
5.1.2.10 sterilization
5.1.2.11 storage
5.1.2.12 transport and aseptic presentation for patient use

Figure 4: Steps for instrument reprocessing



5.1.2.1 Step 1: Cleaning at point of care

OHCPs should remove materials from instruments after each use to prevent drying and adherence to instruments. Offices should follow MIFUs for removal of materials, notably composite, luting agents and amalgam, at point of care. Use of non-woven gauze is preferable.

5.1.2.2 Step 2: Gathering and transport

- Instruments from packages opened during patient care are considered contaminated.
- Instruments from unopened packages exposed to aerosols are considered contaminated and must be reprocessed as if used.
- OHCP must wear protective outerwear, masks, protective eyewear and utility gloves to gather contaminated instruments.
- PPE must be worn during transport when the outside of the transport container becomes contaminated during placement of instruments.
- Customization of PPE use during transport should be determined based on office design.
- Instruments and devices must be transported from the treatment area to the reprocessing area in a closed, puncture proof, leak proof container that is disinfected following each use.

5.1.2.3 Step 3: Disassembly and pre-clean

- Hinged instruments must be opened for cleaning and must remain open throughout reprocessing.
- Instruments should not be allowed to dry and/or should be treated with an enzyme pre-clean if cleaning is to be delayed.
- Disinfectants, including high level disinfectants, are not to be used to keep instruments moist.
- Devices that require disassembly are disassembled at this step.

5.1.2.4 Step 4: Cleaning and rinsing

PPE shall continue to be worn when handling devices that have been manually cleaned or cleaned using ultrasonic cleaners as a terminal cleaning device, or, automated washers that are not washers/disinfectors.

~~Devices that have been cleaned and thermally disinfected using a washer/disinfector are decontaminated and PPE is not required when preparing them for further reprocessing steps.~~

All devices must be visibly clean prior to further steps in reprocessing (following cleaning). ~~Cleaning verification tests (preferably protein verification) must be used for burs that are reprocessed for surgery, including burs used for implant placement and any other surgical devices that are difficult to clean, especially those for implant placement.~~

Lumens

The only lumens that cannot be visibly inspected is a handpiece. All other lumens must be inspected for cleanliness ~~(such as small suctions used for surgery and endodontics) and should either be inspected using a borescope~~ or replaced by single use items.

Handpieces

Handpieces and other intraoral instruments that can be removed from the air and waterlines of dental units must be cleaned (inside and outside) and sterilized between patients following MIFUs.

Manual cleaning and rinsing

- Manual cleaning must be performed according to MIFUs.
- Where MIFUs are missing or critical portions are missing (e.g., type of detergent, type of brush, type of water), manufacturers should be contacted.
- Ideally two sinks (or one sink with two compartments) large and deep enough to immerse the largest piece of equipment are preferred.
- The first sink is for soaking/scrubbing and the second one is for rinsing. Instruments must be fully immersed during hand scrubbing to reduce aerosol production.
- Only cleaning tools intended for use in healthcare should be utilized. These must be cleaned, decontaminated, dried and stored as per MIFUs.

Automated cleaning

Automated cleaning results in more consistent cleaning than manual cleaning. When a washer/disinfector is used, the instruments are decontaminated by thermal disinfection unlike manual cleaning, where instruments are cleaned, dried, inspected, and lubricated but have not been decontaminated prior to packaging.

- *Ultrasonic cleaners*
  Offices must retain documentation for the maintenance of ultrasonic cleaners and solutions.

  Instruments must be rinsed prior to placement into the ultrasonic cleaner and following their removal. Ultrasonic cleaning tests, utilizing commercial products, must be performed according to MIFUs. Documentation of testing and maintenance of equipment must be retained for the life of the equipment.

- *Automated washers and washer/disinfectors* Only washers or washer/disinfectors that are licensed by Health Canada may be purchased and used for cleaning instruments and devices in the dental office. MIFUs including correct detergents, enzymes and final rinse water must be followed. A soil removal test must be performed daily and a log of those tests as well as records of routine maintenance and servicing should be maintained for the life of the equipment.

5.1.2.5 Step 5: Drying

Instruments and devices must be dry prior to inspection and packaging.

When drying is performed manually, a low-linting material should be used. Instruments should not be allowed to air dry or be dried through the use of fans.

Consideration should be given to the use of instrument grade air from a dryer (portable or built in) to dry lumens especially those with a small diameter prior to inspection. Clean absorbent material should be placed over the distal end to absorb moisture and prevent aerosolization from drying.

5.1.2.6 Step 6: Inspection, functionality, and lubrication

Instruments and devices must be inspected to ensure they are clean and dry prior to further steps for reprocessing. Instruments/devices that remain visibly soiled or have not passed tests with cleaning verification tools need to be returned for further cleaning.

Adequate overhead lighting and illuminated magnifiers should be used for instrument inspection. All lumens should be inspected using a light; lumens with diameters too small to check should be inspected with a borescope.

Manufacturers are required to include the criteria for testing functionality of instruments and devices. Functionality means that the instrument is intact, sharp, and will perform optimally during patient care.

Follow MIFUs for lubrication including use prior to 'best before' date.

5.1.2.7 Step 7: Packaging

All instruments that are used for patient care and are heat tolerant must be packaged for sterilization and storage.

Packaging criteria:

- Must be compatible with the sterilizer and the instruments/devices to be sterilized
- Must be used according to MIFUs, specifically temperature, humidity, storage time and conditions of packaging
- Must be used prior to expiry date
- Packaging within packaging must only be used if validated by MIFUs.
- Prevention of package contamination prior to sterilization should be included in SOPs.
- Internal chemical indicators are placed into the packages prior to sealing.
- Self-sealing peel pouch seals must be smooth and no gaps at outer edges.
- Tape must not be used to seal peel pouches.
- When using wraps, two single sheets or one composite (two sheets bonded together) must be used regardless of whether sequential or simultaneous wrap method is being used.
- Wrapper configuration shall provide a tortuous pathway to impede microbial migration into the sterile barrier systems.
- Non-sterile gauze must not be packaged for sterilization because validated MIFUs are not available. If sterile gauze is required it should be purchased sterile.

5.1.2.8 Step 8: Labeling

Sterile packages must be labeled in order to trace packages back to the sterilizer and biological indicator test.

The label on each package must display the following:

- date of sterilization
- sterilizer #
- sterilizer load #
- initials of the person who performed the packaging
- identification of the contents for wrapped packages

Labeling can be done utilizing an automated label system or manually, using validated medical grade markers. (A sterilizer compatible marker which conforms to ASTM D4236 can be used.)

Labeling can be done either before placement or after removal from the sterilizer. Marker must never be used on the paper side of the package.

Labels must be placed on the plastic side or closure flaps of peel pouches, or on the tape of wrapped packages. They must not be placed directly on the paper side.

5.1.2.9 Step 9: Monitoring

Daily monitoring of the operation of every sterilizer must be reviewed, confirmed and documented.

Mechanical and chemical indicator monitoring does not ensure that sterilization has been achieved. They are a method of verifying that the necessary conditions for sterilization have been met. Parameters that have

not been met and chemical indicators that have not changed, alert the user to sterilization problems.

Immediate Use Steam Sterilization (IUSS) (sterilization without packaging) should not be used. If required, due to emergent need, the process must be monitored with a Type 5 or 6 indicator and the (IUSS) process recorded in the patient chart. IUSS must not be used because of low instrument inventory.

Physical parameters (e.g. mechanical gauges)

These provide information about physical conditions within the sterilizer chamber both during and at the time of completion of all cycles. The critical parameters measured are time, temperature and pressure.

When loads have finished their cycle, a staff member must check the electronic data to verify the physical parameters have been met, and initial the Load Log. If the parameters were not met, the contents of the load will not be released and the cause of the problem determined prior to repackaging and sterilizing the load.

When sterilizers without a recording device (print out or electronic data recorder) are used, a staff member must physically oversee that conditions for sterilization have been met during the sterilization cycle. **Annex 16**

When the cycle parameters required by MIFUs are different, the most challenged cycle must be tested daily by a biological indicator (BI) in a challenge device. For example, if the sterilizer has a pre-programmed 'cycle' for parameters of 132°C for 4 minutes and for 134°C for 6 or 10 minutes, the BI would be tested using the 132x4 pre-programmed cycle because it is the most challenged cycle.

Chemical Indicators (CI)

These are devices that respond with a chemical change when exposed to sterilants. A 'pass' response indicates that certain conditions were achieved only at the location of the chemical indicator. As importantly, a 'fail' response indicates that certain conditions were not achieved at this location. A pass does not necessarily indicate that a device is sterile but rather that conditions to achieve sterility were met.

The choice of chemical indicator will depend on the type and quality of information that is needed. Users should refer to MIFUs to ensure that the chemical indicator being used matches their specific sterilizer type and is appropriate to the sterilization cycle. Indicators are identified as Types 1-6, however, the 'Type' is used as an identifier for their function and not as a hierarchy (e.g. Type 1 is not 'better' or worse than Type 2, they are unique to their purpose).

Staff handling sterilized products must know the actions to take when the indicator has failed. **Annex 17**

Type 2

Type 2 indicators are used in pre-vacuum sterilizers to test that air removal (Bowie-Dick test) has been achieved. These tests are done using an empty chamber and must be done at the beginning of each workday. Documentation of these tests must be kept for the lifetime of the practice. If there is a failure, retesting is required. If there is a second failure, remove the unit from service and contact a certified technician for repair.

External chemical indicators (Type 1)

An example of a Type 1 indicator is sterilization tape. Wrapped packages must be sealed using sterilization tape which acts as an external chemical indicator. All packages being sterilized must be monitored with an external indicator.

External chemical indicators should be checked:

- upon opening the sterilizer,
- upon removing packages from the sterilizer,
- upon placement into and out of storage,
- and upon aseptic presentation.

Instruments must not be used from packages where external indicators have failed. Determine cause of failure prior to reprocessing.

Internal chemical indicators (Type 5 and 6)

Type 5 or Type 6 internal chemical indicators must be placed inside each package prior to sterilization. These indicators react to all critical parameters (time, temperature, and pressure).

The internal chemical indicator should be placed in the area least susceptible to steam penetration (the most challenged area).

Type 6 emulating indicators are used for specific cycles, such as long cycles, that are used for sterilization of lumens.

Instruments from packages with failed internal indicators must not be used, and the following steps must occur:

- Return of instruments for reprocessing
- Document the failed chemical indicator on the load log to identify the sterilizer, load, and date of sterilization
- Confirm that mechanical parameters were met during sterilization of that load prior to release
- Check load log for other failures from that load
- Two packages with failed internal chemical indicators from the same load must result in a recall of remaining packages from that load
- If possible, determine the cause of failure prior to reprocessing failed packages
- Packages are reprocessed as if they have been used for patient care

Biological indicator (BI)/spore test

All spore test results must be documented and must be retained for ~~the life of the practice~~ a 10-year period.

A biological indicator/spore test must be used to test:

- each sterilizer
- for each cycle used at the shortest cycle time
- a minimum once daily for the sterilizer(s) in use that day

The BI/spore test and a Type 5 or Type 6 internal chemical indicator are used by placing both inside a validated commercial process challenge device (PCD) or in the most challenged position of an in-house test package PCD and positioned in the most challenged location of the sterilizer according to sterilizer MIFUs. **Annex 18**

Once the validated commercial PCD or in-house test package PCD is opened, view the internal chemical indicator to confirm that it has passed and then retrieve the BI for incubation.

Incubation

The BI and the incubators used to incubate them must be compatible. The BI is incubated, along with a control BI that is from the same package of vials and has not been sterilized. The control is used to ensure that the resistant non-pathogenic spores are viable and the incubator is functioning properly.

Release of loads

BI test load

Optimally, loads should be held in quarantine until the BI results are known. The BI test load may be released when:

- Type 5 or 6 internal chemical indicator in the PCD passed
- Other parameters required see “Release of all other loads”

Release of all other loads

Loads may be released when the following has been met:

- Physical parameters of the sterilization cycle were met and verified
- Type 5 or Type 6 internal chemical indicators have been placed inside each package
- Load log has been initialed by the person who confirmed that the physical parameters were met.

Note:

Because internal chemical indicators cannot be seen in wrapped packages, a chemical indicator test package (PCD) can be used for increased assurance for release in these loads. The internal chemical indicator must still be checked and a pass confirmed prior to using the contents for patient treatment. **Annex 19**

Loads with surgical or implant accessories

Loads that contain accessories for surgery or implants must be monitored with a BI and CI in a validated commercial PCD or in-house test package PCD and must not be released until the results of the BI are known and passed.

Failed BI tests

- Instruments must not be used when there has been a failed test.
- The cause for the failure should be determined whenever possible prior to repeating any tests.
- Recall all packages sterilized in that sterilizer back to the last negative test. Depending on the amount of practice inventory of instruments, either reprocess these in a known safe sterilizer or quarantine them until the results of the second BI are known.
- Clearly mark the sterilizer out of service and perform a second BI.
- If there is a second failure, remove from service and contact a certified technician for repair.
- Corrective action taken for a failed test must be documented. **Annex 20**

5.1.2.10 Step 10: Sterilization

Sterilizers differ with respect to how air is removed from the chamber, categorized as either gravity or dynamic. Gravity sterilizers, as the name implies, replaces air passively with steam. Dynamic sterilizers are either pre-vacuum or steam flush pressure pulse (SFPP) types. Dynamic sterilizers are preferred in dentistry, as gravity sterilizers have been found to be an unreliable sterilization method for dental handpieces, especially surgical handpieces.

Pre-vacuum sterilizers evacuate the chamber and the pressure falls to below atmospheric pressure. Because of this, if pockets of air remain prior to steam being introduced, the air will act as a barrier to the steam. An air removal test using a Type 2 chemical indicator (frequently referred to as a "Bowie-Dick test") is used to test the sterilizer in an empty chamber either as the first procedure daily or if the sterilizer is run 24 hours a day, at the same time each day. The chamber pressure in SFPP sterilizers does not fall below atmospheric pressure; therefore, an air removal test is not required.

For more information: https://www.cdc.gov/infectioncontrol/guidelines/disinfection/sterilization/steam.html

- All heat tolerant reusable instruments and devices must be sterile for patient use.
- MIFUs should be obtained prior to purchase for all instruments and devices to ensure that the sterilizing method and cycle required is available in individual offices.
- MIFUs should be easily accessible.

Sterility Assurance

The following is excerpted (with permission) from the Canadian Standards Association Z314-18:

Sterility assurance refers to the integrated system of tests, controls and the development of SOPs intended to ensure that reprocessed medical devices are sterile when delivered for use. **Annex 21**

Sterilizer Qualification and Requalification

Sterilizers must be confirmed for function:

- at installation qualified (IQ) by the manufacturer
- for operational qualification (OQ) by the manufacturer at installation and requalified following major repairs, relocation, or unexplained failure by the office
- for performance qualification (PQ) following the introduction of new packaging or loading differently than instructions provided in MIFUs, or when purchase of new equipment requires a different loading configuration from MIFUs

The sterilizer must not be used until three consecutive and successful (negative growth) BI tests have been performed.

Loading

- Sterilizers must be loaded according to MIFUs including maximum weight of the load.
- Packages must be loaded to allow adequate space between packages and the walls of the sterilizer chamber which allows steam to penetrate the package.
- Peel pouches are loaded plastic to paper or following MIFUs
- Surfaces that collect water must be placed according to sterilizer MIFUs, usually upside down or at an angle to allow condensate to drain.
- Heaviest items must be placed on bottom shelf.

Unloading

- Packages must only be removed when cooled to room temperature.
- External CIs must be checked and signed off on the Load log after unloading to confirm the load has been processed.
- Wet packages are considered contaminated and will require reprocessing. Investigate the cause for wet packages prior to reprocessing.
- Critical and semi-critical instruments must be reprocessed in a way that will maintain sterility during storage. This includes ensuring that the integrity of the package is maintained during unloading and loading.
- Packages that are compromised (e.g., torn, opened) or packages that fall during unloading and are still in the reprocessing area are repackaged and sterilized.
- Packages that become compromised including those that fall onto the floor during transport or placement or removal from storage need to be reprocessed.
- Every load containing implantable devices must be monitored using a biological indicator PCD (CSA 16.6.8.2)

5.1.2.11 Step 11: Storage

Sterilized packages placed into storage remain sterile indefinitely if not compromised.

Packages are removed from storage based on:

- patient care requirements
- compromised packaging
- according to MIFUs

- voluntary date determined by practice
- first in first out (FIFO) to achieve stock rotation

If sterilized packages are stored in the reprocessing area, they must be in an enclosed space.

Sterile packages must be stored in areas that:

- are clean and dry
- are away from environmental contamination
- have enough space between packages to prevent sticking or damage during removal
- can be placed on side rather than being stacked

Packages must not be stored in external shipping containers (e.g. corrugated cardboard, paper boxes) nor stored in an area containing supplies stored in cardboard. Cardboard must not be collapsed near stored items (due to the amount of dust).

5.1.2.12 Step 12: Transport and aseptic presentation for patient use

Transporting sterile instruments should be performed in a manner that protects instruments and devices from contamination. Packages are opened on a dry clean area with clean hands. Instruments are removed once hands are washed and gloved, and patient is seated. Ensure Type 5 or 6 internal chemical indicators have passed.

Aseptic Presentation

Aseptic presentation is a term used to describe the prevention of microbial contamination.

Maintaining aseptic technique is a cooperative responsibility of the entire dental team. Each member must develop a professional conscience for IPAC, as well as a willingness to supervise and be supervised by others regarding aseptic technique.

These practices are as follows:

- chairside area is separated into clean or sterile versus contaminated
- packages are placed in the clean area
- hand hygiene is performed
- packages are opened or unwrapped noting the outside of the packages are not sterile
- hand hygiene is performed and gloves are placed
- sterile instruments are placed on a clean chairside area and care is taken to avoid placing unsterile equipment near sterile items

If an item is needed for a procedure, but not on the procedure tray, it must only be retrieved using transfer forceps or by first ensuring that the OHCP's hands are clean, followed by new gloves. Transfer forceps must be readily available at all times.

5.2 Documentation (as per CSA Z314-18)

Offices must maintain documentation of the following:

- Ultrasonic unit – testing sonication daily when ultrasonic is used.
- Soil removal verification tests for washers and washer/ disinfectors: daily
- Bowie-Dick test (only pre-vacuum sterilizers) in an empty sterilizer: daily
- Biological monitoring for each sterilizer and each cycle that is used: at least once daily that the sterilizer is used
- Maintenance and interventions associated with a positive BI result (failed BI test)
- Documentation of maintenance of equipment must be kept for the life of the equipment
- Documentation of all daily BI tests and load logs must be kept for 10 years
- Every load must be documented using a Load Log to demonstrate minimally:
    - Date
    - Sterilizer #
        - load #
        - number of packages
        - type of packages
        - initials of person unloading packages
        - physical parameters if there is no mechanism for print or electric recording with each load.
        - Chemical indicator failures **Annex 20**

5.3 Traceability

5.3.1 Recall

Offices should have a protocol for recall and traceability – in the event of a load recall and/or a patient recall due to sterilization failure[s], patients who may be affected can be readily identified.
This should include:

- Labelling
- Load logs
- Method of transferring information from labels to patient charts either manually or using commercially produced labels.

5.3.2 Instrument Labeling

Individual instruments may be identified and/or traced using embedded radio frequency identification chips (RFID), manufacturer applied laser etching/bar coding, the use of colored rings and colored marking tape.

In-office etching and engraving should not be used as these processes damage the passivity layer of the instruments, allowing them to corrode and microorganisms to adhere more readily.

5.4 Periodontal instruments/stones

Periodontal instrument sharpening, and the sterilization and use of sharpening devices must follow MIFUs. Intra-operative chairside sharpening is only permitted if the device used for sharpening (i.e., sharpening card and or stone) has been sterilized in accordance with validated MIFUs.

Sharpening of contaminated instruments may present a risk for accidental occupational exposure and disease transmission. Clinicians should consider the risk/benefit of accidental exposure when sharpening during treatment. Instruments that are sharpened but not used immediately must be reprocessed and opened at point of care to maintain sterility.

If MIFUs allow for chair side sharpening, consider the following:

- Sharpening should be done on a stable surface.
- Wipe debris such as blood, lubricants or metal filings from the instrument before and after sharpening

(Information courtesy of the College of Registered Dental Hygienists of Alberta 2020)

6.0 SURGICAL PROCEDURES

Oral surgical procedures are defined as any procedure involving incision, excision, or reflection of soft tissue that allows for exposure of sterile areas of the oral cavity. Oral surgical procedures increase the risk of local or systemic infection.

6.1 Surgical aseptic technique

This refers to practices that render and maintain objects and the surrounding area free of microorganisms to prevent contamination of a wound and isolate the operative site from the surrounding physical environment to create a sterile field.

Surgical dental procedures require a different set of infection control practices than restorative dental procedures. Transfer forceps must be available at all times to retrieve items needed, but must not be on the procedure tray.

Consideration should be given to the following:

- Patient preparation
  - Pre-procedural rinse
  - Head cover
  - Sterile drape
- OHCP preparation
  - Surgical hand antisepsis (see 6.2)
  - Wearing appropriate surgical PPE
    - Protective sterile surgical gowns should be considered
    - Head cover
    - Sterile surgical gloves should be considered whenever invasive surgical procedures are performed including raising intentional gingival, mucosal or dermal flaps and/or whenever the cutting or sectioning of bone is anticipated.
  - Aseptic field: all items that go onto the sterile field must remain sterile, including instruments, materials and supplies that come in contact with the surgical site. Every item handled by the dentist and assistant must be sterile or have a protective sterile covering.
  - Irrigating solutions and devices designed for delivering sterile irrigating fluids must be sterile and items that are reprocessed must come with MIFUs or are purchased sterile.
  - Items such as bulb syringes do not come with MIFUs and their use should be discontinued.
  - Consideration should be given to the use of handpieces, as well as piezo and ultrasonic scalers that bypass the dental unit to deliver sterile water or other solutions by using sterile single-use disposable or sterilizable tubing.

6.2 Hand hygiene for surgical procedures

The purpose of surgical hand antisepsis is to reduce or eliminate transient flora. This would prevent introduction of organisms into the operative wound if gloves become punctured or torn. Antimicrobial soap with residual antimicrobial activity should be used for surgical hand asepsis.

6.2.1 Surgical Hand Scrub

To be performed before any surgical procedures:

- Remove all jewelry.
- Use antimicrobial soap with persistent activity and approved by Health Canada.
- Wash hands and at least 2 inches above the wrists thoroughly for the length of time according to antimicrobial soap MIFUs. Pay special attention to nails, subungual areas, between fingers, and between thumb and index finger; the direction of the scrubbing procedure is from the hands toward the elbows, without returning to the cleaned hands. Brushes should not be used for hand scrubs.
- Dry hands and arms with a sterile towel ensuring that hands and arms are completely dry before donning sterile gloves.

6.3 Surgical aseptic presentation of instruments

- Prepare and organize work procedures so that all of the required equipment is gathered for the task.
- Sterile instruments and devices should be stored in an enclosed space, such as closed or covered cabinets. They must remain wrapped until ready for use.
- Spatially separate work areas and equipment into clean versus contaminated, sterile versus unsterile.
- Use protective covers and barriers according to approved office-specific work procedures.
- If an item is needed for a procedure, but not on the procedure tray, it must only be retrieved using transfer forceps.
- Sterile surgical gloves must only be applied before initiating patient treatment.

6.4 Handling of biopsy specimens

Biopsy specimens should be placed in a sturdy, leak proof container with appropriate fixative. If the outside of the container is suspected to be, or has been contaminated, it must be cleaned and disinfected or placed in an impervious bag prior to transportation.

6.5 Lasers/electrosurgery plumes and surgical smoke

OHCPs must take appropriate precautions to avoid inhaling or otherwise coming into contact with laser plumes and electrosurgery smoke by:

- Employing the use of appropriate PPE (e.g., masks and face shields)
- Utilizing high volume evacuation (HVE) units with in-line filters to collect particulate matter
- Considering the use of dedicated mechanical smoke exhaust systems with a high-efficiency filter to remove laser plume particles.

6.6 Safe handling of injectables

The transmission of blood-borne viruses and other microbial pathogens to patients may occur due to unsafe and improper handling of injectables (e.g., local anesthetics, drugs and solutions for sedation).

The following aseptic practices must be adhered to when preparing and administering injectables:

- Perform hand hygiene prior to accessing supplies, handling vials and IV solutions, and preparing or administering drugs.
- Prepare drugs and supplies in a clean area on a clean surface.
- Use aseptic technique in all aspects of parenteral drug administration, drug vial use and injections.
- Never administer a drug from the same syringe to more than one patient, even if the needle is changed between patients.
- Never store needles and syringes unwrapped, as sterility cannot be assured.
- If an administration set is prepared ahead of time, all drugs should be drawn up as close to use as possible to prevent contamination. Once set up, an administration set should be covered.
- Do not use IV solution bags as a common source of supply for multiple patients.

6.6.1 Single dose vials

Single dose vials are intended for single patient use.

- Enter the vial once and immediately discard after use.
- Always use a sterile syringe and needle/cannula when entering a vial.
- Never combine or pool the leftover contents of single dose vials.
- A syringe for the administration of a local anesthetic must only be prepared at the time of use.

6.6.2 Multidose vials

The use of multidose vials for injectable drugs increases the risk of transmission of blood-borne pathogens and bacterial contamination of the vial. Single dose vials are always preferred.

If multidose vials are used, the following practices must be followed:

- Adhere to aseptic technique when accessing multidose vials.
- Multidose vials should be accessed on a surface that is clean.
- Scrub the access diaphragm of vials using friction and 70% alcohol. Allow to dry before inserting a new needle and new syringe into the vial.
- Once medication is drawn up, the needle should be immediately withdrawn from the vial. A needle should never be left in a vial to be attached to a new syringe.
- If possible, use a multidose vial for a single patient and mark the vial with the patient's name.
- Discard the multidose vial immediately if sterility is questioned or compromised or if the vial is not marked with the patient's name and original entry date.
- Review the product leaflet for recommended duration of use after entry of the multidose vial.
- Discard opened multidose vials according to MIFUs.
- Vials should be stored in a dedicated refrigerator if required.

7.0 SPECIAL CONSIDERATIONS

7.1 Nitrous Oxide Nasal Hood and Blood Pressure Cuff

The use of a disposable nasal hood is preferred; if disposable type is not compatible with current nitrous equipment, follow MIFUs to disinfect the nasal hood.

The cuff on a blood pressure unit is considered a non- critical item. Follow MIFUs if available or disinfect using a Health Canada approved disinfectant.

7.2 Pest control

For information on controlling outbreaks of bed bugs, head lice or scabies, please contact your local Public Health office or call Health Links – Info Santé at 204-788-8200 **Annex 23**

Bed Bug/Lice/Scabies Fact Sheet WRHA
http://www.wrha.mb.ca/extranet/ipc/files/Tools/BedBugsLiceScabies_IPC_Highlights.pdf

7.3 Service animals in dental healthcare settings

What is a service animal?

A service animal is trained to assist a person with a disability. The work or task(s) performed by a service animal must be directly related to a person's physical or mental disability. Animals that provide comfort and companionship and that are not trained to assist with a person's disability, are not service animals.

- A person with a service animal has the right to enter your facility.
- Users of service animals have a visible or an invisible disability.
- A service animal usually has an identifying harness.
- "No pet" policies must not be applied to service animals. The preference of other customers is not a valid reason to restrict service to a customer with a service animal. A person with a service animal has responsibilities including controlling the animal.

IPC measures used for patient accompanied by a service animal

No evidence suggests that animals pose a more significant risk of transmitting infection than people; therefore, service animals should not be excluded from such areas unless a patient's situation or a particular animal poses risk that cannot be mitigated through reasonable measures.

If visitors and patients are permitted to enter care areas (e.g., treatment rooms and public areas) a clean, healthy, well-behaved service animal should be allowed access with its handler. In situations where sterile surgical (aseptic) technique is required, the service animal would not be permitted. SOPs for cleaning and disinfecting the operatory will apply.

RESOURCES & REFERENCES USED TO COMPILE THIS DOCUMENT:

ADA&C 2018 Guidelines
https://www.cdsab.ca/wp-content/uploads/2019/03/CDSA-SoP-Infection-Prevention-and-Control.pdf

The American Academy of Oral Medicine:
Dental Care for the Patient with an
Oral Herpetic Lesion
https://www.aaom.com/index.php?option=com_content&view=article&id=161:clinical-practice-statement--dental-care-for-the-patient-with-an-oral-herpetic-lesion&catid=24:clinical-practice-statement

Bowie-Dick and Decontamination:
Rutala, WA and Weber DJ 2008
Guideline for Disinfection and Sterilization in Healthcare Facilities.
https://www.cdc.gov/infection-control/media/pdfs/guideline-disinfection-h.pdf

British Columbia Best Practices for Environmental Cleaning for Prevention and Control of Infections in All Healthcare Setting and Programs (Provincial Infection Control Network of British Columbia (PICnet)
https://www.picnet.ca/wp-content/uploads/British-Columbia-Best-Practices-for-Environmental-Cleaning-for-Prevention-and-Control-of-Infections-in-All-Healthcare-Settings-and-Programs.pdf

British Columbia Guidelines for Infection Prevention and Control in the Physician's Office
http://www.bccdc.ca/resource-gallery/Documents/Guidelines and Forms/Guidelines and Manuals/Epid/CD Manual/Chapter 3 - IC/InfectionControl_GF_IC_In_Physician_Office.pdf

Canadian Centre for Occupational Health and Safety
https://www.ccohs.ca/oshanswers/diseases/needlestick_injuries.html

Canadian Medical Device Reprocessing
CAN/CSA Z314-2018

CCME
https://publications.gc.ca/collections/collection_2015/ec/En108-3-1-42-eng.pdf

CDC
https://www.cdc.gov/dental-infection-control/hcp/index.html

CDC Guidelines for Infection Control in Dental Health-Care Settings (2003)

CDC Guidelines for Hand Hygiene in Health-Care Settings (2002)

Center for Disease Control and Prevention
https://www.cdc.gov/infection-control/hcp/index.html

College of Dental Surgeons of British Columbia, Infection Prevention and Control Guidelines

College of Registered Dental Hygienists of Alberta

Hand hygiene poster, Government of Manitoba
https://www.gov.mb.ca/health/publichealth/cdc/docs/ipc/hand.pdf

Health Canada Guidance Document – Disinfectant Drugs
https://www.canada.ca/en/health-canada/services/drugs-health-products/drug-products/applications-submissions/guidance-documents/disinfectants/disinfectant-drugs.html

Health Canada Guidance Document: Information to Be Provided by Manufacturers for the Reprocessing and Sterilization of Reusable Medical Devices
https://www.canada.ca/en/health-canada/services/drugs-health-products/medical-devices/application-information/guidance-documents/guidance-document-information-manufacturers-sterilization-reusable-medical-devices.html

IPAC Canada for changes to HLD and sterilants from drugs to Class II medical devices
https://www.camdr.ca/wp-content/uploads/2018/06/Medical-Devices-Brief-June-8-18-FINAL1.pdf

IPAC Canada, hand hygiene resources
www.ipac-canada.org

Latex sensitivity and allergies
Saskatoon & Area - Occupational Health & Safety, Number: 51-004

Title: Chemical Hazard: Latex Allergy;
Saskatchewan Employment Act:
OHS Regulation: 7-1, 7-2

Date: January 1, 2017;
Date Revised/Reaffirmed: December 2, 2021

Manitoba Health, Seniors and Active Living
https://www.gov.mb.ca/health/publichealth/cdc/protocol/mhsu_0013.pdf

https://www.gov.mb.ca/health/publichealth/cdc/protocol/hiv_postexp.pdf

https://www.gov.mb.ca/health/publichealth/cdc/docs/hiv-coverage-and-prescription.pdf

https://www.niinfectioncontrolmanual.net/basic-principles

Organization for Safety Asepsis and Prevention (OSAP)
White Paper and Recommendations,
Dental Unit Waterline Quality: Mills S., Porteus N., Zawada J. (2018)
https://www.myads.org/assets/docs/resources/toolkits-topics/dental-unit-water-quality-organization-for-safety-asepsis-and-prevention-white-paper-and-recommendations-2018.pdf

Public Health Agency of Canada:
Hand Hygiene Practices in Healthcare Settings 2013
https://www.publichealthontario.ca/en/health-topics/infection-prevention-control/hand-hygiene

Public Health Agency of Canada:
Guideline on the Prevention of Transmission of Bloodborne Viruses from Infected Healthcare Workers in the Healthcare Settings 2019
https://www.canada.ca/en/public-health/services/infectious-diseases/nosocomial-occupational-infections/prevention-transmission-bloodborne-viruses-healthcare-workers.html

Public Health Ontario:
Performing a Risk Assessment Related to Routine Practices and Additional Precautions
https://www.publichealthontario.ca/-/media/documents/R/2012/rpap-risk-assessment.pdf?la=en

RCDSO guideline – 2018 Infection Prevention and Control in the Dental Office

RCDSO
Steps to Investigate a Positive Biological Indicator
https://cdn.agilitycms.com/rcdso/pdf/ipac/RCDSO_5544_IPAC%20Steps%20to%20investigate%20Flowchart_v2_ACC.pdf

Routine Practices and Additional Practices: Preventing the Transmission of Infection in Healthcare 2019
https://www.gov.mb.ca/health/publichealth/cdc/docs/ipc/rpap.pdf

WRHA
Occupational and Environmental Safety and Health Operational Procedure
http://www.wrha.mb.ca/professionals/safety/files/OP-BloodandBodyFluidExposure.pdf

http://www.wrha.mb.ca/extranet/ipc/tools.php

https://professionals.wrha.mb.ca/old/extranet/ipc/files/Tools/BedBugsLiceScabies_IPC_Highlights.pdf

https://www.gov.mb.ca/sd/waterstewardship/odw/public-info/boil-water/advisory_public.pdf

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Annex 1: Recommended duties of IPAC coordinator

- Developing policies and educational materials as directed by dentist for the office setting
- Prepare, review and update personnel and training records for current and new personnel
- Implement and monitor all infection control policies and procedures including post-exposure protocols
- Compliance with IPAC policies should be documented and evaluated at least annually or as required
- Schedule and monitor IPAC training /retraining and maintenance of training records for new and current personnel
- Training/retraining of office housecleaning personnel; personal protection and exposure control
- Monitor and document breaches in operating procedures for sterilization including physical (mechanical), chemical and biological monitoring
- Monitor staff compliance for completion of sterilizer documentation
- Develop and manage the device inventory list and the safety data sheets (SDS) of chemicals and products used in the facility
- Management of equipment and PPE. Ensure decontamination of equipment prior to transport for repair
- May act as a liaison between patients, visitors, staff and the dentist to answer any questions
- Provide suggestions for improvement of infection control practices
- Conduct IPAC audits annually and hand hygiene audits routinely as required, until office consistently achieves 100% compliance. Audits can be assigned to another staff member or outside auditor.

Annex 2: List of required office policies

Offices must have written instructions for:

1. Practice-specific variances from the MDA IPAC document and the reasons for those variances
2. OHCPs that are infected with bloodborne diseases such as HIV, HepC or B. OHCPs must know their serologic status at all times and report any changes to their regulator and employer, if required, who may restrict exposure prone procedures, if appropriate.
3. The frequency and content of medical history updates for all patients and staff
4. Assessment process for patients infected with active communicable disease (e.g., influenza, TB, “cold sore”) for elective, urgent and emergent treatment
5. Work restrictions for OHCPs with a communicable disease e.g., TB, Hep B
6. Exposure and post-exposure plan, including name of the testing and treatment facility and who is responsible for costs
7. Policy for PPE use which complies with MDA and federal/provincial health guidelines, is based on transmission risk, and is facility-specific
8. Protocol for glove use during instrument transport and reprocessing
9. Handling of spills, including blood and bodily fluids
10. Handling of lab cases
11. Documentation for amalgam separation units if amalgam is used and includes installation, maintenance and amalgam disposal methods
12. SOPs for the management of DUWLs
13. Disposal of biomedical waste
14. Storing and accessibility of MIFUs for all devices, instruments, appliances
15. Manual cleaning or use of washer/disinfector, drying, inspection protocol and reprocessing of lumens

Annex 3: List of recommended office policies

Offices should have written instructions for

1. Hand hygiene audit program
2. Monitoring OHCP to identify gaps in knowledge and/or compliance; training must be based on identified gaps
3. Immunization policy for all staff
4. Cough and sneeze etiquette, hand hygiene practices, including the use of ABHR, and tissue use for all OHCPs.
5. Fingernail length and jewelry use
6. Use of latex
7. Identification of risk categories for OHCP workplace injuries and annual documentation of those injuries to enable targeted work practice control to reduce their occurrence
8. Boil Water Advisory treatment limitations
9. The frequency and content of medical history updates for all patients and staff
10. Device inventory (including single-use items) to ensure all MIFUs for reprocessing are present. Single-use items without MIFUs cannot be reprocessed

Annex 4: Notification Form for Reportable Diseases & Conditions

https://www.gov.mb.ca/health/publichealth/cdc/protocol/mhsu_0013.pdf

Manitoba
Health, Seniors and Active Living

Clinical Notification of Reportable Diseases and Conditions

(The Reporting of Diseases and Conditions Regulation, 37/2009, made under The Public Health Act, C.C.S.M. c.P210)

If you have a suspected clinical case, please use this form to report information and/or call the Public Health Surveillance Unit at 204-788-6736.

I. *URGENT* – Same Day Reporting

Same-day reporting of the following suspected clinical cases to a *live* person by telephone is required:

During Business Hours, Mon.-Fri., 8:30 am to 4:30 pm **204-788-6736** [Surveillance Unit]

After Business Hours **204-788-8666** [Medical Officer of Health]

Please also fax this completed form to Confidential Fax 204-948-3044.

- Botulism
- Cholera
- Diphtheria
- Measles (Rubeola)
- Meningococcal invasive disease
- Mumps
- Pertussis
- Plague
- Poliomyelitis
- Rabies (human)
- Rubella
- SARI (Severe Acute Respiratory Infection)
- Smallpox
- Viral Hemorrhagic Fever

II. Reporting within 5 Business Days

Clinical cases of the following require completion and faxing of this form within 5 business days to Confidential Fax 204-948-3044.

- Acquired immune deficiency syndrome (AIDS)
- Congenital Rubella Infection/Syndrome
- Creutzfeldt-Jakob Disease
- Leprosy
- Tetanus
- Tuberculosis
- Yellow Fever

*Anaplasmosis, Babesiosis and Lyme infections, report using the Tick-Borne Disease Clinical Case Report form: http://www.gov.mb.ca/health/publichealth/cdc/protocol/tickborneform.pdf

III. Further Reporting

Any reportable disease suspected under the following circumstances is also reportable by a health professional:

a) **At death**, if the health professional reasonably believes that the patient may have had the reportable disease at the time of death or the reportable disease contributed to the patient's death.
b) **At biopsy or autopsy**, if, in performing the biopsy or autopsy, the health professional finds evidence of a reportable disease.
c) Upon becoming aware that a person has a disease or condition that is not **otherwise reportable**, if the disease or condition is:
   i. occurring in a **cluster or outbreak**, or
   ii. has presented itself with **unusual clinical manifestation**.

Check applicable box: Suspected Outbreaks of Illness Unusual occurrences

Patient Name: _____ DOB: _____ *(yyyy/mm/dd)* Male Female

MH #: _____ PHIN: _____

Address: _____ City: _____ Province: _____

Postal Code: _____

Symptom onset: _____ *(yyyy/mm/dd)* Diagnosis: _____

Basis for Clinical Diagnosis (symptoms, signs, epidemiological history / travel / exposure, etc.):

_____

_____

Death associated with a reportable disease: Yes No Date of Death: _____ *(yyyy/mm/dd)*

Laboratory sample sent: Yes No Specimen date: _____ *(yyyy/mm/dd)*

To which lab: _____ Specimen type: _____

Any other relevant information (including suspected source of exposure):

_____

_____

_____

Reporting Health Professional: _____ Date: _____ *(yyyy/mm/dd)*

Contact Information (work / cell / home phone / pager / email): _____

Signature: _____

If you have any questions or concerns about the reportable diseases or conditions or you need to speak with a Medical Officer of Health, please call 204-788-8666 anytime (24/7).

November 27, 2019

Annex 5: Design considerations for renovations or new builds

- Receiving area for contaminated instruments and devices should have:
    - adequate space to store staff PPE for MDR
    - no-touch trash receptacles and sharps containers
    - counter space for receiving instruments; for disassembly; and for holding in pre-clean when instruments and devices cannot be processed immediately
- Hand hygiene: there must be a separate sink for hand hygiene, or an ABHR station, at the entrance to and exit from the instrument cleaning area.
- Recommendations for hand hygiene sink requirements: Alberta Health Services https://www.albertahealthservices.ca/assets/healthinfo/ipc/if-hp-ipc-guidelines-sink-and-faucet-selection.pdf
- For manual cleaning of instruments and devices, there must be a minimum of two sinks – one for washing, one for rinsing – large enough to emerge the largest device.
- For ultrasonic cleaning, there should be adequate space for the ultrasonic cleaner, preferably adjacent to a sink and optimally between sinks.
- There should be adequate counter space adjacent to automated washers for placing clean instruments prior to inspection and packaging.
- There must be adequate lighting and optimally with magnification for inspection.
- There should be a source of instrument grade air for drying lumens.
- The packaging area must have adequate space for storage of materials for packaging and monitoring with conditions for storage appropriate to MIFUs.
- The packaging area should have adequate and ergonomically designed counter space for packaging and holding packaged instruments for sterilization.
- There must be adequate space for labelling whether labelling is done prior to or after sterilization.
- There must be adequate counter space for
    - high level disinfection, if used
    - incubator(s)
    - space for documentation, including storage of binders or computer for MIFUs
- There must be space for storage of sterile packages, preferably designed for optimal humidity and temperature, and adequate space to prevent compromise to packages.
- Ventilation and air handling systems should move air from the clean side of the reprocessing area to the decontaminated side, and meet the current CSA Standard and municipal building codes for optimal exchanges per hours for reprocessing areas.
- Ventilation for contaminated areas should be negative pressure and clean areas should be positive pressure.

Annex 6: Work Restriction Policies for Healthcare Providers

Disease/Problem	Clinical Restriction	Duration
Conjunctivitis – bacterial Conjunctivitis (pink eye)	No modifications or restrictions to work practice	
Conjunctivitis – Adenovirus, Epidemic keratoconjunctivitis	No modifications or restrictions	
Cytomegalovirus Infection	No modifications or restrictions	
Epstein-Barr	No modifications or restrictions	
Gastrointestinal infections Norovirus	Restrict from patient contact	Until symptoms resolve
Shigella	Restrict from patient contact	Until symptoms resolve Consult with local and provincial health authorities regarding need for negative stool cultures
Hepatitis A	Restrict from patient contact (Should be immune with evidence of HAV immunization) No modifications for workers exposed to HAV	Until seven (7) days after onset of jaundice
Hepatitis B Personnel with acute or chronic Hepatitis B who do not perform exposure-prone procedures	No restrictions, refer to provincial regulations. Routine practices are always to be followed.	
Personnel with acute or chronic Hepatitis B who perform exposure-prone procedures	Report condition to MDA Registrar No restrictions to exposure prone procedures (EPPs) if HBV DNA levels are less than 10^3 IU/ml (5 x 10^3 GE/ml)	Avoid exposure prone procedures until: a. under the care of a physician with expertise in HBV management and b. HBV DNA level is below 10^3 IU/ ml (5 x 10^3 GE/ml) or equivalent and monitored regularly (every 3-6 months)
Hepatitis C Personnel who test positive to HCV RNA and who do not perform EPP	No restrictions	
Personnel who perform exposure-prone procedures	Report condition to MDA Registrar No restrictions to healthcare workers performing EPPs who tested negative to HCV RNA at least 12 weeks post- treatment	Restricted for EPPs until they are a. under care from a physician with expertise in HCV management b. has completed effective therapy c. has tested negative to HCV RNA

Disease/Problem	Clinical Restriction	Duration
Herpes simplex 1 Diagnosis and management of orofacial herpes simplex virus infections *** see reference below** **Herpes AAOM**		
Hands (herpetic whitlow)	Restrict from patient contact and contact with patient's environment.	Until lesions heal. (Can be reassigned to non-patient care tasks.)
Orofacial or weeping lesions other than hands	Cover lesions with a protective dressing/wear a mask and wear gloves. Avoid touching lesions during patient care. Ensure careful hand hygiene.	Lesions are contagious at both vesicular and crusted stage.
Human immunodeficiency virus HCW who do not perform EPPs	No restrictions	
HCW who perform EPPs	Do not perform exposure-prone procedures until the MDA Registrar has been informed. The Registrar will determine who to consult on this matter if they find it necessary. Document precautions are always to be followed.	
Influenza	Exclude from work	Exclude HCW from onset of symptoms (day 1) until seven (7) days after onset.
Measles **(should know immune status)** Active	Exclude from work	Until five (5) days after resolution of the rash or extended if symptoms persist.
Meningococcal infection	Exclude from work	Until 24 hours after start of effective therapy.
MRSA Management of MRSA patients on the dental chair **** see reference below**		
Mumps **(should know immune status)** Active	Exclude from work	Until nine (9) days after onset of parotitis

* Miller CS, Redding SW. Diagnosis and management of orofacial herpes simplex virus infections. Dent Clin North Am. 1992 Oct;36(4):879-95. PMID: 1397439.

** Manjunath N, Banu, F., Chopra, A., Kumar, P., Nishana, F. (2017). Management of MRSA patients on the dental chair. Int J Res Med Sci. 2017 Aug;5(8):3729-3733 www.msjonline.org

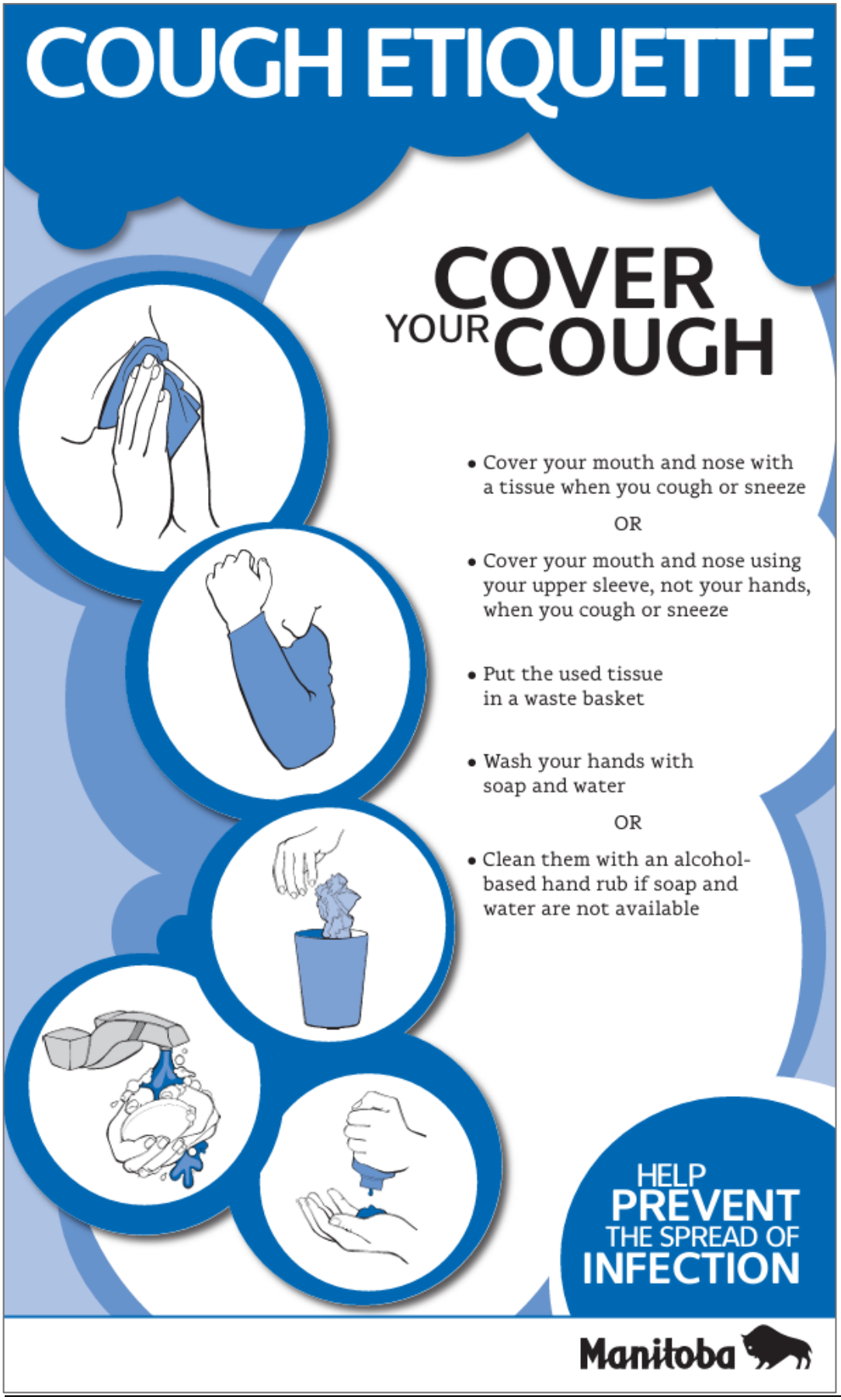
Disease/Problem	Clinical Restriction	Duration
Pediculosis	Exclude from work	Exclude until 24 hours after effective treatment and observed to be free of adult and immature lice.
Waning immunity in adults: **Following exposure** Post exposure (asymptomatic personnel) Post exposure, asymptomatic, unable or refuse to take prophylactic antibiotics	No restriction, prophylaxis recommended Exclude from work until 20 days after contact.	From beginning of catarrhal stage through third week after onset of paroxysms or until five (5) days after start of effective antibiotic therapy.
Rubella (should know status) Active	Exclude from work	Until seven (7) days after rash appears
Post exposure (susceptible personnel)	Exclude from work	From 7th day after first exposure through 21st day after last exposure
Staphylococcus aureus infection Active, draining skin lesion	Exclude from work	Until lesions have resolved
Carrier state	No restriction unless personnel are epidemiologically linked to transmission of the organism	
Streptococcal Infection, Group A	Exclude from clinical activity	Until 24 hours after adequate treatment is started
Tuberculosis Active disease	Exclude from work	Until proven non-infectious
Latent TB	No restriction	
Varicella (should know status) Active disease	Exclude from work	Until all lesions dry and crust
Post exposure (susceptible personnel)	Exclude from work	From day eight (8) after first exposure through day 21 (restrict to day 28 if varicella-zoster immune globulin [VZIG] administered)
Zoster (shingles) Localized, in healthy person	Cover lesions, restrict from care of patients at high risk	Until all lesions dry and crust

www.novascotia.ca/dhw/cdpc/cdc

https://www.canada.ca/content/dam/phac-aspc/documents/services/infectious-diseases/nosocomial-occupational-infections/prevention-transmission-bloodborne-viruses-healthcare-workers/guideline_accessible_aug-2-2019.pdf

Annex 7: Cough and sneeze etiquette

https://www.gov.mb.ca/health/publichealth/cdc/docs/ipc/cough.pdf



Annex 8: Hand Hygiene Audit Tool

Staff Member	Date	Upon Entering Operatory	Before Gloving	After Glove Removal	Before Leaving Operatory	If Arms Bare Washed to Elbows	Score (Percentage)

Annex 9: Sample Exposure Report Form

(Confidentiality of this form must be ensured)

EXPOSURE REPORT FORM

Name of facility which will be used for testing: _____

Phone number: _____

Name of Exposed Person: _____

Hepatitis B vaccination completed: date___/___/ Post vaccination titre: _____mIU/ML

Date and time of Exposure: _____

Procedure being performed: _____

Where and how exposure occurred: _____

Did exposure involve a sharp device: ☐ Yes ☐ No

Type and brand of device:_____

How and when during exposure occurred:_____

Extent of the exposure (describe):_____

☐ Blood ☐ Saliva ☐ Other body fluid Describe_____

Percutaneous injury:

- Depth of wound: _____
- Gauge of needle:_____
- Was fluid injected: ☐ Yes ☐ No

Skin or mucous membrane exposure:

- Estimated volume of fluid:_____
- Condition of skin: ☐ Intact ☐ Chapped ☐ Abraded

Follow up care (describe in detail):

_____

_____

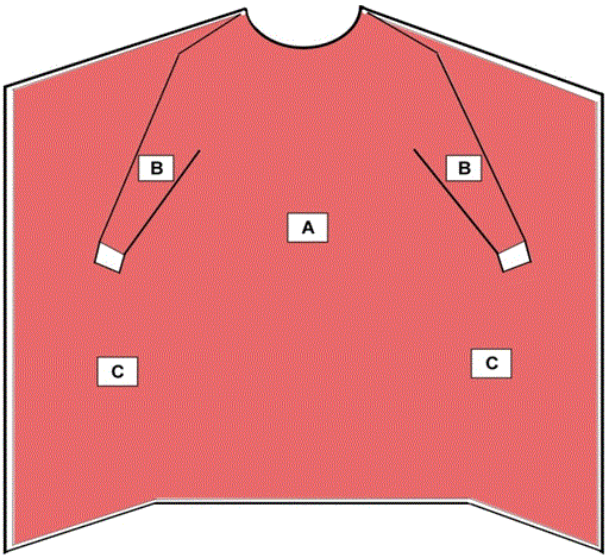
_____

Date: ___/___/___ Caregiver: _____ Action Taken: _____
yy/mm dd

Annex 10: Gown Level & Clinical Use

- Level 1: Minimal risk, to be used, for example, during basic care, document isolation, cover gown for visitors, or in a document medical unit
- Level 2: Low risk, to be used, for example, during blood draw, suturing, in the Intensive Care Unit (ICU), or a pathology lab
- Level 3: Moderate risk, to be used, for example, during arterial blood draw, inserting an Intravenous (IV) line, in the Emergency Room, or for trauma cases
- Level 4: High risk, to be used, for example, during long, fluid intense procedures, surgery, when pathogen resistance is needed or infectious diseases are suspected (non-airborne)

Regardless of how the product is named (that is, isolation gown, procedure gown, or cover gown), when choosing gowns, look for product labeling that de scribes an intended use with the desired level of protection. Product names are not standardized.

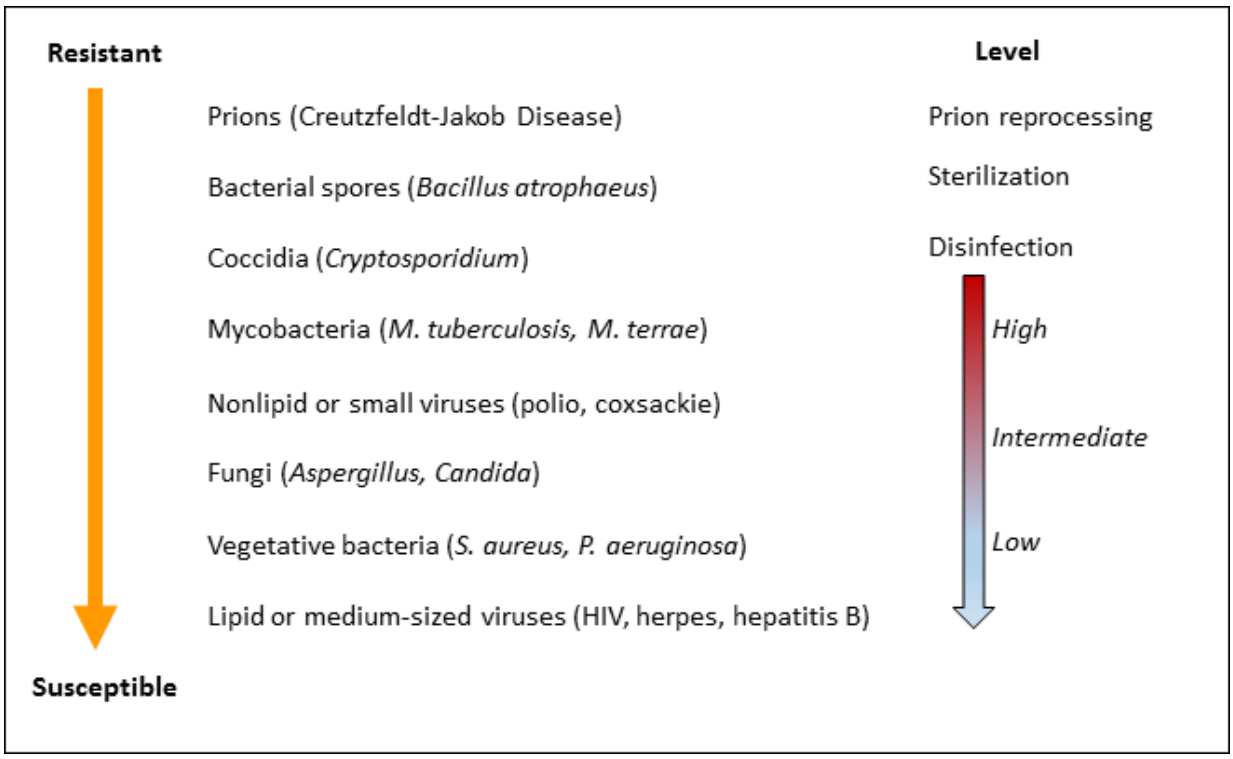


Critical zones for surgical isolation gowns and non-surgical gowns

- The entire gown (areas A, B and C), including seams but excluding cuff, hems and bindings, is required to have a barrier performance of at least Level 1.
- Surgical isolation gowns are used when there is a medium to high risk of contamination and need for larger critical zones than traditional surgical gowns.

https://www.fda.gov/medical-devices/personal-protective-equipment-infection-control/medical-gowns

Annex 11: Susceptibility of Organisms to Disinfection



Modified from Russell and Favero

https://www.cdc.gov/infection-control/hcp/disinfection-and-sterilization/resistance.html

Annex 12: Sample Product Information Sheet

1	Product Name	
2	Drug Identification Number (DIN)	
3	Intended Use for Product	
4	Product Claims:	*What Viruses
	○ Bacterial	
	○ Fungicidal	
	○ Mycobacteriocidal	
	○ Tuberculocidal	
	○ Virucidal*	
	○ Virucidal	
5	What surfaces	
6	Active ingredients	
7	Pre-clean surfaces (separate product?)	
8	Contact time required for disinfection	
9	Personal Protective Equipment required	
10	Expiry date	
11	Cost per use	
12	Storage	
13	Concentration/Dilution:	
	○ Rates	
	○ Water quality	
	○ Measuring device	
14	Monitoring methods (if applicable)	
15	Application	
16	Disposal	
17	Environmental compatibility & disposal requirements	
18	SDA/WHMIS	
	○ SDS attached	
	○ WHMIS attached	

Date completed: _____

Annex 13: Sample procedure for cleaning toys

Toys should be inspected for damage, cracked or broken parts, as these may compromise cleaning. Any toy that is found to be damaged, cracked or broken should be discarded.

Toys should be cleaned according to the manufacturer's instructions or local practices (e.g., in hot, soapy water) prior to disinfection.

Disinfection options include:

- Use of a commercial dishwasher/cart washer (must reach 82°C for 10 seconds)
- Hospital-grade, approved low-level disinfectant which is safe and suitable for the cleaning of toys (follow manufacturer's recommendations regarding dilution and contact times)
- Phenolics (must not be used for toys or equipment that comes into contact with infants)
- 70% alcohol solution or, 1/100 dilution of sodium hypochlorite (bleach)
- If a disinfectant is used, toy must be rinsed with potable water thoroughly prior to use.
- Allow toys to air-dry, in a manner to prevent contamination, prior to storing

https://ipac-canada.org/photos/custom/Members/pdf/22Nov_Toys%20Practice%20Recommendations.pdf

Annex 14: Cleaning blood or body fluids

Staff would:

- Restrict activity around the spill until the area has been cleaned, disinfected and completely dry;
- Wear a fluid resistant gown, mask, eye protection, and utility gloves;
- Absorb blood or body fluid spills immediately using disposable towels or a product designed for this purpose;
- Dispose used materials by placing them into regular waste receptacle, unless blood can be squeezed from the soiled materials;
- When blood can be squeezed from soiled materials, they must be segregated into the yellow biomedical waste container;
- Wash the affected area with soap and water then disinfect the entire spill area with an intermediate level disinfectant or - 1:10 dilution of 5- 5.25% sodium hypochlorite and allow it to remain wet for the recommended contact time according to MIFUs;
- Wipe the area using disposable towels soaked with tap water and discard into regular waste;
- Allow area to dry;
- Care should be taken to avoid splashing or generating aerosols during the cleanup;
- Remove gloves and perform hand hygiene.

Annex 15: Dental Lab Asepsis

Disinfection of impressions and interim cases:

Disinfection shall be performed for all patient laboratory cases before and after patient care. Disinfection is performed by thorough cleaning, followed by use of a disinfectant that is appropriate for use on laboratory cases i.e., impressions, interim cases, try-ins, final prosthesis and appliances.

MIFUs shall be obtained prior to purchase of disinfectants for laboratory use to ensure they are intended for, and safe for, this purpose. MIFUs shall be followed. Offices should have written instructions for disinfection of laboratory cases.

If MIFUs allow, surface disinfectants used for clinical surfaces in the operatory may be used for disinfecting impressions and other laboratory items.

Note: Dilute sodium hypochlorite, which does not have a DIN, is recognized as a disinfectant that is appropriate and can be made by diluting one part sodium hypochlorite (at least 5-5.25%) to 10 parts tap water (provides 5250 ppm). However, this solution must be made fresh daily as the active ingredients become ineffective after 24 hours. To avoid problems with corrosion to plumbing from discarding unused diluted mixtures, flush with copious amounts of water when discarding unused solutions. Wear appropriate PPE.

As with all disinfection, cases must be clean prior to application of disinfectant. Both spray and immersion techniques can be used. It is the responsibility of the office to clean and disinfect all laboratory cases after patient care and to ensure they are disinfected properly before being inserted for the patient.

Disinfection of alginate impressions:

- All alginate impressions can be disinfected using spray.
- Alginates with MIFUs that allow immersion can be immersed without causing distortion to the resultant cast.

For spray disinfection - suggested technique of disinfecting alginate impressions:

- Rinse under running water to remove all visible soil
- Spray to fill tooth indentations
- Wrap in paper towel that has been wetted with disinfectant
- Store in sealed plastic bag for specified kill time on label (to maintain humidity for alginate)
- Remove impression and rinse, shake to remove excess moisture
- Pour immediately or bag for transport with instructions for laboratory indicating disinfection status
- When pouring, use gloves for impression tray is still considered contaminated
- Remove impression and rinse, shake to remove excess moisture
- For immersion disinfection - suggested technique for disinfecting alginate impressions:
- Rinse under running water to remove all visible soil
- Immerse in 1:10 dilution of (at least 5%) sodium hypochlorite for 10 minutes OR as per impression
- MIFUs or disinfectant MIFUs (ensure that disinfectant is safe for this use)
- Remove impression, rinse under running water and shake to remove excess moisture prior to pouring

For disinfection of polyether - addition silicone (PVS) & ZOE impressions:

It is important to verify the method of disinfection with the manufacturer to prevent distortion of the impression or loosening of the adhesive bond between the impression tray and impression material if used.

- Rinse under running water to remove all visible soil
- Immerse or spray using 1:10 dilution of (at least 5%) sodium hypochlorite for 10 minutes OR as per
- impression MIFUs or disinfectant MIFUs (ensure that disinfectant is safe for this use)
- Remove impression; rinse under running water and remove excess moisture prior to pouring

Suggested disinfection of interim and final prosthesis, including complete and partial dentures, crowns, periodontal splints, and orthodontic and/or pedodontic appliances:

- Rinse thoroughly under running water
- Immerse or spray for disinfection of choice according to MIFUs contact time or 10 minutes in 1:10 dilution of (at least 5%) sodium hypochlorite (do not leave in disinfectant longer than 10 minutes)
- Rinse thoroughly under running water, shake to remove excess moisture
- Bag for transport to patient
- Rinse again prior to insertion to ensure that no residual disinfectant remains

Reprocessing heat tolerant patient care items:
Heat-tolerant devices used for treatment involving laboratory fabrication such as metal impression trays, facebows and facebow forks, and water bath pans shall be reprocessed ("sterilized") according to MIFUs. Items that do not normally contact the patient, prosthetic device or appliance, but frequently become contaminated and cannot withstand heat sterilization, such as articulators, case pans and lathes, shall be disinfected according to MIFUs or, in the absence of MIFUs, using surface disinfectants.

Only devices with MIFUs shall be used or otherwise shall be considered single use items, such as rag wheels.

Transportation to the laboratory:

- Impressions and appliances shall be placed in an impervious bag prior to transportation to both
- in-house and external commercial laboratories;
- The dental prescription shall be attached to the outside of the bag;

Communication between dental offices and commercial laboratories:

- Offices shall request that commercial laboratories utilize tamper-evident containers for delivery of appliances, fixed or removable prosthodontics or items to be inserted into the patient's mouth.

The dental office shall be responsible for final disinfection procedures before and after patient care.

Dental offices shall communicate their disinfecting procedures to commercial dental laboratories.
This is done to ensure that any additional cleaning and disinfection performed in the commercial laboratory is safe and compatible with procedures followed in the dental office, and does not damage or distort impressions or prosthetic materials due to disinfectant overexposure. Clinical materials that have not been decontaminated and are transported from a dental office to an off-site laboratory may be subject to provincial and municipal regulations regarding transportation and shipping of infectious materials.

Waste generated in the dental laboratory:
Laboratory waste such as disposable trays or impression materials may be discarded with general waste.
Refer to Safety Data Sheets for laboratory hazardous materials and discard accordingly. Sharps containers shall be used for disposable sharps.

Annex 16: Typical sterilization temperatures and times for dynamic and gravity cycles

Cycle Type	Exposure Temperature	Exposure Time
For Dynamic Air Removal Cycles		
Pre-vacuum	270°F / 132°C	4 minutes
Pre-vacuum	275°F / 135°C	3 minutes
SFPP	270°F / 132°C	4 minutes
SFPP	275°F / 135°C	3 minutes
For Gravity Cycles		
Gravity	250°F / 121°C	30 minutes
Gravity	270°F / 132°C	15 minutes

Annex 17: Description of Chemical Indicators

Type 1 Indicates exposure to a process to allow differentiation between unprocessed and processed items, and/or indicates gross failure of a sterilization process.

Type 2 Indicators for use in special applications (e.g., Bowie-Dick type test).

Type 3 Indicators to be placed inside individual load items and to assess attainment of the critical process variables at the point of placement. This single-variable indicator only reacts to one critical process variable.

Type 4 Indicators to be placed inside individual load items and to assess attainment of the critical process variables at the point of placement. This multi-variable indicator reacts to more than one critical process variable.

Type 5 Indicators to be placed inside individual load items and to assess attainment of the critical process variables at the point of placement. This integrating indicator reacts to all critical process variables.

Type 6 Indicators to be placed inside individual load items and to assess attainment of the critical process variables at the point of placement. This emulating indicator reacts to all critical process variables.

Annex 18: Creating an In-house Test Package

When purchasing commercial PCDs, do not purchase unless the manufacturer can demonstrate that the PCD has been validated.

***In-house test packages (PCDs) are made by tailoring the package to the individual office.*

An in-house test package (PCD) is representative of the most challenged package that is sterilized in the practice e.g., the sterilized set with the greatest number of instruments or has the greatest weight of all the packages that are sterilized in the practice. The instruments or devices need to be similar (e.g., a straight elevator can be replaced with a different elevator, any restorative instrument can be replaced by another restorative instrument).

- The in-house test package (PCD) is packaged (both the container and the outer packaging) the same way as the most challenged package.
- The BI and the appropriate chemical indicator (5 or 6) are placed in the in-house test package (PCD) in the area which is the most challenged position in the package for the steam to penetrate.

By using instruments for developing in-house test packages (PCDs) that are no longer functional, the inventory of instruments remains unaffected and devices are subjected less frequently to reprocessing. Also, an in-house test package (PCDs) can be developed for each sterilizer.

Suggested method for creating an In-House Test Package

1. The test package will be equivalent to the most challenged package that is sterilized in the office either by numbers of instruments or weight. It is recommended that there is one test package for each sterilizer, that it be labelled to identify the sterilizer where it is used, and that the package be made up of instruments that are exact or similar to those in the most challenged package, however, that the instruments used are no longer functional (e.g., broken, corroded).

   By using instruments that are no longer functional, the office inventory of usable instruments is not compromised. This practice can also reduce the premature degradation from reprocessing since functional instruments will require reprocessing after the BI and internal chemical indicator are removed from the test package and before patient use.

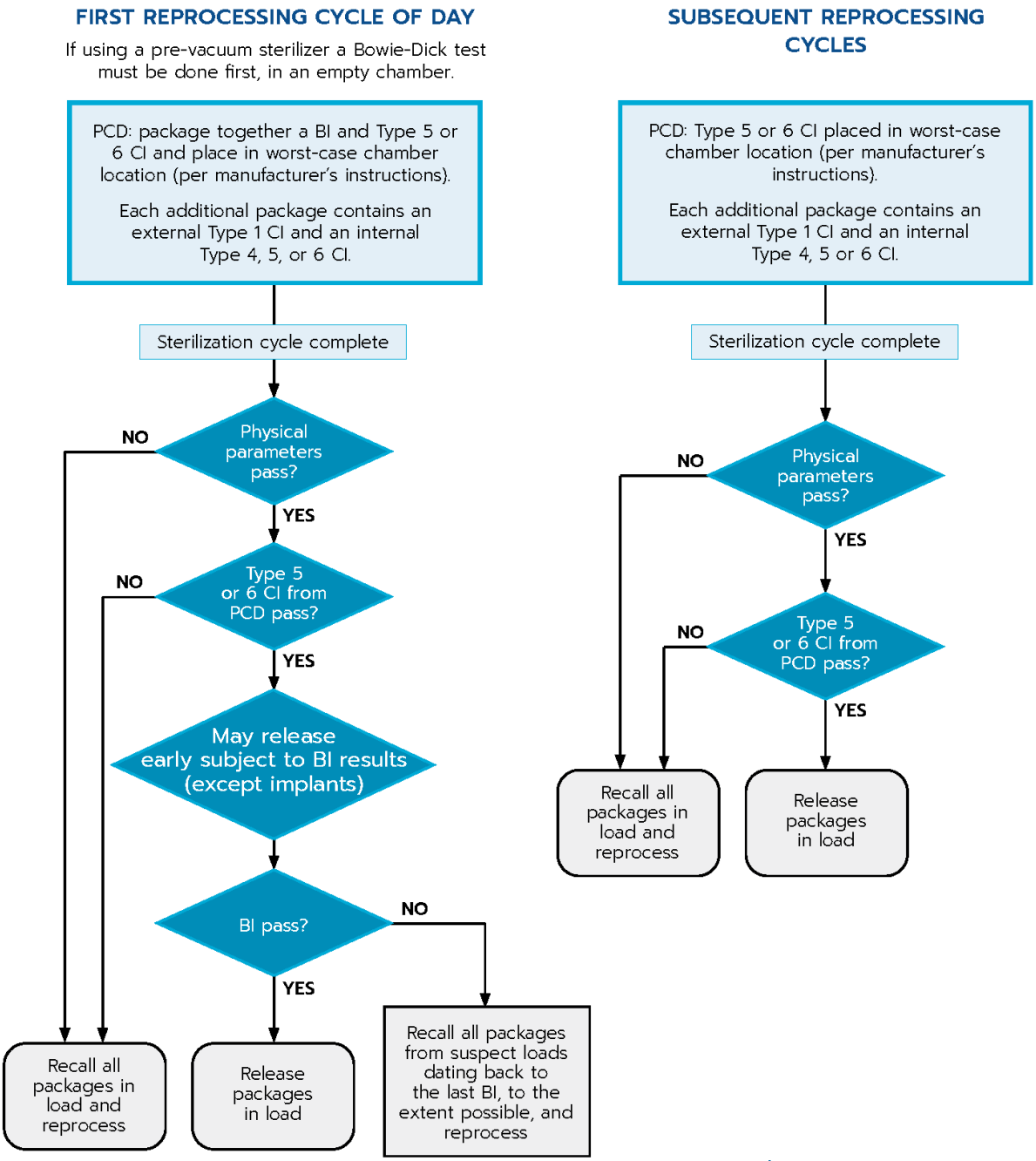
2. The test package will contain a BI and a Type 5 or Type 6 internal chemical indicator placed into the most challenged position in the package. The most challenged position may be any of the following and is dependent on the package.
   - In packages where the instruments are loose (not in cassettes), between the heaviest instruments. (Follow MIFUs for numbers of instruments that are allowed in peel pouches.)
   - In cassettes, between any instruments that are placed in areas outside of the silicone rails.
   - In cassettes, in the interface that will occur between an instrument that is clipped onto the upper part of the cassette and any instrument that it opposes.
   - Inside a lumen (if the size of the lumen allows a BI & CI)

3. The test package will be packaged the same way as the most challenged package is packaged – either peel pouch or wrap.

4. The test package will be loaded in the position that is the most challenged in the sterilizer according to sterilizer MIFUs.

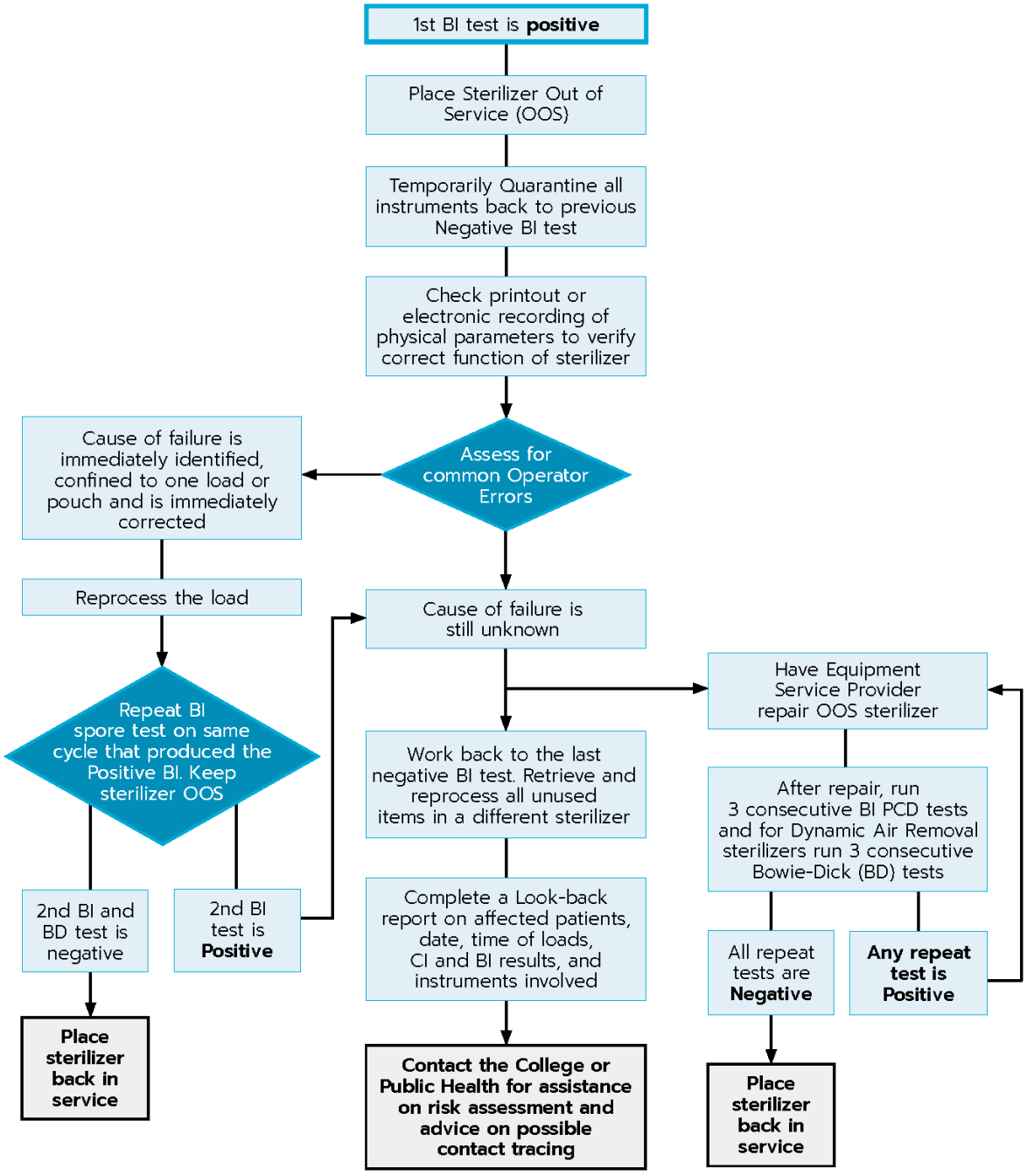
Annex 19: Algorithm for Release of loads

HOW TO USE CHEMICAL INDICATORS, BIOLOGICAL INDICATORS AND PROCESS CHALLENGE DEVICES TO MONITOR STERILIZATION



Annex 20: Steps to investigate BI Failure

STEPS TO INVESTIGATE A POSITIVE BIOLOGICAL INDICATOR (I.E. FAILED SPORE TEST)



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Annex 21: Explanation of Sterility Assurance

The following is excerpted (with permission) from the Canadian Standards Association Z314-18:

1. Sterility assurance refers to the integrated system of tests, controls and backup SOPs intended to ensure that reprocessed medical devices are sterile when delivered for use. In Canada, the testing and monitoring program for sterility assurance is based on a validated system that includes the following elements:
    a. Installation qualification (IQ) — IQ confirms that the sterilizer has been installed and connected to the required services according to the sterilizer manufacturer's specifications and local regulations
    b. Operational qualification (OQ) — OQ has two aspects:
        - it verifies that the sterilizer meets the manufacturer's operating specifications, which includes calibration of temperature and pressure sensors as well as verification of safety features and alarms and
        - it also verifies that the sterilizer consistently produces the necessary process conditions for sterilization by testing with a process challenge device (PCD). Operational requalification verifies that the sterilizer is working according to the manufacturer's claims. It is performed at installation and at least annually, and following repairs or other significant occurrences.
    c. Performance qualification (PQ) — PQ testing verifies that the healthcare setting-specific packs and loads can be successfully and consistently sterilized using routine processes, products, personnel and equipment that are processed in the healthcare setting
    d. Routine monitoring provides ongoing confirmation that equipment and processes are working as expected, and includes monitoring of:
        - The physical parameters of every load
        - Every package with Cis
        - Sterilizer efficacy with Bis
2. Validation testing is performed by manufacturers of devices, sterilizers and packaging to demonstrate that a sterilization process is effective. This is done before approval for sale and in some other special circumstances. Canadian healthcare settings perform sterilization process monitoring or verification testing. Canadian healthcare settings do not conduct validation.

Utilizing the above, the following is required for sterility assurance:

Installation qualification or IQ: When purchasing a sterilizer, the office shall ensure that MIFUs are provided for the sterilizer and that a manufacturer's representative shall install and test the sterilizer to ensure that it is working correctly.

The office shall ensure the Operational qualification or OQ is performed at least annually.

The sterilizer shall be verified to have the capability to consistently meet the manufacturer's operating specifications through calibration and verification of alarms and other safety features.

Challenging and re-challenging the sterilizer in three consecutive cycles (i.e., one immediately after the other) using a BI PCD must be done annually following installation, as well as the following conditions:

- if a sterilizer is moved, following sterilizer repair (repair, not normal maintenance such as gasket replacement)
- for a loaner sterilizer (for example when a sterilizer has been sent for repair and a loaner has been provided)
- unexplained sterility failures

Tests are run in a full chamber because that presents the greatest challenge for the steam available. Instruments that were used for the challenge shall be quarantined despite a pass for the Type 5 integrator until the BI results are known negative.

If the sterilizer is a pre-vacuum, three consecutive Bowie-Dick tests shall also be ran.

Performance qualification or PQ: The office shall confirm through documentation of process that the staff, equipment, and the procedures used, assure that equipment is being used properly and monitored, each time the sterilizer is used.

The purpose of this document is to record process parameters for steam sterilization in community health care settings. This will assist with tracking of medical devices used on clients/patients/residents in the event of a recall or follow-up investigation. For more information, see the Best Practices for Cleaning, Disinfection and Sterilization of Medical Equipment/Devices or email ipac@oahpp.ca.

Sterilizer Model: ______________________________ **Sterilizer Serial Number:**________________________________

Load Details	Pouch Contents	Sterilizer Readings Met*	Operator Initials	Quality Indicators*	Operator Initials
Date: __________ Time: __________ Load #: _________		Temperature: ☐ Yes ☐ No Time: ☐ Yes ☐ No Pressure: ☐ Yes ☐ No		Chemical indicator Change: ☐ Yes ☐ No Biological Indicator: ☐ Pass ☐ Fail	
Date: __________ Time: __________ Load #: _________		Temperature: ☐ Yes ☐ No Time: ☐ Yes ☐ No Pressure: ☐ Yes ☐ No		Chemical indicator Change: ☐ Yes ☐ No Biological Indicator: ☐ Pass ☐ Fail	
Date: __________ Time: __________ Load #: _________		Temperature: ☐ Yes ☐ No Time: ☐ Yes ☐ No Pressure: ☐ Yes ☐ No		Chemical indicator Change: ☐ Yes ☐ No Biological Indicator: ☐ Pass ☐ Fail	
Date: __________ Time: __________ Load #: _________		Temperature: ☐ Yes ☐ No Time: ☐ Yes ☐ No Pressure: ☐ Yes ☐ No		Chemical indicator Change: ☐ Yes ☐ No Biological Indicator: ☐ Pass ☐ Fail	

* Any "no" or "fail" requires system failures procedure documentation and follow up.

Print Name:________________________________ Signature:___________________________ Initials:_____________

Print Name:________________________________ Signature:___________________________ Initials:_____________

Print Name:________________________________ Signature:___________________________ Initials:_____________

References:

Ontario Agency for Health Protection and Promotion (Public Health Ontario), Provincial Infectious Diseases Advisory Committee. Best practices for cleaning, disinfection and sterilization in all health care settings. 3rd ed. Toronto, ON: Queen's Printer for Ontario; 2013. Available from: http://www.publichealthontario.ca/en/eRepository/PIDAC_Cleaning_Disinfection_and_Sterilization_2013.pdf

CSA Group. SPE 1112-14: The user handbook for medical device reprocessing in community health care settings. Toronto, ON: CSA Group; 2014.

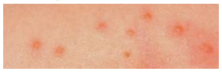
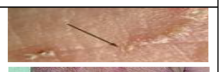
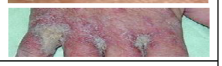
Ontario
Agency for Health Protection and Promotion
Agence de protection et de promotion de la santé

Annex 23: Bed Bug/Lice Scabies Fact Sheet

https://professionals.wrha.mb.ca/old/extranet/ipc/files/Tools/BedBugsLiceScabies_IPC_Highlights.pdf

Winnipeg Regional Health Authority / Office régional de la santé de Winnipeg
Caring for Health / À l'écoute de notre santé

Bed Bugs/Head Lice/Scabies Highlights

Contact	• Housekeeping (HSKG) and Facility Management (pest/environmental control) as appropriate • IP&C (patient management) and OESH (staff exposures)		
GENERAL INFORMATION			
	BED BUGS Protocol	**Head LICE Protocol**	**SCABIES Protocol**
Photos	 Bites 	 Nits (eggs) 	 Normal Scabies  Norwegian 
'Bug' Appearance	• Size of apple seed; flat oval body • Brown; after feeding swell and can be bright or dark red	• Size of a rice grain • Grayish brown in colour • Nits can be mistaken for dandruff	• 1/3 mm long • Bites can be mistaken for Psoriasis or other skin condition
Facts	• Visit host to feed, not live • Most active at night • Do not transmit disease • Live up to 550 days without food	• Nits adhere to hair • Do not transmit disease • Die if off host for 2 days	• Diagnosed by skin scraping • Eggs are laid under the skin • Do not transmit disease • Die if off host for 3-4 days
Location	• Bites on exposed skin • Bugs or dark spots/stains on bed frame, mattress & bedding, headboard, baseboards, clothes, items with close body contact	• Nits and lice around ears, forehead, nape of neck, near the scalp • Body lice on clothes • Crab lice on groins	• Pimple-like rash or tiny lines in finger webs, wrists, elbows, arm pits, waist, penis, and buttocks • Thick crust with Norwegian scabies
Communicability	• Until removed from environment, patient and clothes	• Until effective treatment • Usually after 1, occasionally 2 treatments	
Transmission	• **DIRECT** contact with bugs on clothes, bedding, bed frames, headboards, baseboards, walls, walker, w/chair or environment • Cannot jump	• **DIRECT** contact with louse • Direct/indirect contact with comb, clothes, bedding, towel, belongings • Head to head contact • Cannot jump or fly	• **DIRECT** contact with mite, infested skin, laundry • **Crusted/Norwegian Scabies** more highly contagious due to large number of mites
Signs & Symptoms	• Red bump or flat welt similar to a mosquito bite • Linear or cluster bite pattern • Bugs visible on clothing or belongings	• Itching • Sores from scratching • Visible nits or lice	• Intense itching, worse at night, & after bathing • Pimply rash, tiny crooked lines on skin folds or skin eruptions • Dermatitis, scaling **Norwegian**: thick crust over skin; may look like psoriasis or eczema
INFECTION PREVENTION & CONTROL MEASURES			
For Patients with Signs/ Symptoms	• Look for bites & visible bugs, including mobility devices • Bag and seal clothing. Send home to launder or store until discharge • Inform other departments patient has visited • Provide clean clothes, linens	• Apply treatment; follow product instructions for use • Manually remove nits daily • If live lice found 1 week after treatment, repeat treatment • Bag patient items • Provide clean clothes, linens	• Apply treatment; follow product instructions for use • After waiting, wash off treatment following the product instructions for use, change all linens • Bag patient items • Provide clean clothes, linens
Additional Precautions & PPE	• **Contact Precautions** if > 1 bug seen • Post sign on door/curtain • Provide PPE as per signage	• **Routine Practices plus gloves for direct patient contact** until 24 hours after effective treatment	• **Contact Precautions** until – 24 hours after effective treatment (normal) – Lesions resolved (Norwegian)
Patient Accommodation	• Single room preferred if available, or 2m b/w patients • Door can remain open • Double sided tape at door, around patient bedspace	• Single room preferred if available, or 2metres between patients • Door can remain open	
Patient Transport	• For medically essential purposes only • Notify Patient Transport Services & receiving department in advance of transport/procedure • Hand hygiene by transport staff and patient when leaving room • Outside room, transport staff reapply clean gloves and clean gown as required		
Discontinuation of Additional Precautions	• Once patient bathed, clothing/personal effects sealed in bag or taken home, and area disinfected by HSKG • Terminal clean after discharge or precautions discontinued	• Once 24 hours has passed since treatment application, clothing and personal effects sealed in bag or taken home, and linen changed	• Once prescribed time has passed after treatment initiation, clothing/personal effects sealed in bag or taken home, treatment washed off, linen changed, & area disinfected by HSKG • **Norwegian**: until lesions resolve • Terminal clean after discharge or precautions discontinued
Visitor Management	• Educate visitors regarding Routine Practices & hand hygiene; and Contact Precautions & correct PPE use • Advise symptomatic visitors to stay home; exception may be considered in extenuating situations; contact IP&C • Avoid visiting more than one patient or, if necessary, change PPE and perform HH between patients		

Annex 24: Change Log

Revisions to this document will be listed by page, in date order.

a. April 2025 -1st review completed. Revisions are highlighted in TEAL.

LIST OF ACRONYMS

ABHR	Alcohol-based hand rub
BBV	Bloodborne virus
CCOHS	Canadian Centre for Occupational Health and Safety
CDC	Centers for Disease Control
CHX rinse	chlorhexidine gluconate rinse
CSA	Canadian Standards Association
DIN	drug identification number
DUWL	dental unit waterline
EPP	exposure prone procedures
IAHCSMM	International Association of Healthcare Central Service Material Management
IPAC	infection prevention and control
ISO TS	ISO technical specifications
IQ	installation qualification
IUSS	immediate use steam sterilization
MDA	Manitoba Dental Association
MDR	medical device reprocessing
MHSAL	Manitoba Health, Senior's and Active Living
MIFU or MIFUs	manufacturers' instructions for use
OHCP	oral healthcare provider
OPIM	other potentially infectious materials
PCD	process challenge device
PCRA	point of care risk assessment
PEP	post exposure protocol
PHAC	Public Health Agency of Canada
PIDAC	Provincial Infectious Disease Advisory Committee (Ontario)
PICnet	Provincial Infection Control network (British Columbia)
PPE	personal protective equipment
SDS	safety data sheet
SFPP	steam flush pressure -pulse
SOP	standard operating procedure
TST	tuberculosis skin test
WRHA	Winnipeg Regional Health Authority
WSHA	Workplace Safety and Health Act

GLOSSARY OF TERMS

Additional precautions	**Used in addition to routine precautions to prevent transmission of a suspected or identified infectious agent.** **Alternately referred to as "transmission precautions" in documents published in the United States.**
Aerosols	A suspension of particles less than 5µm in diameter or droplets in the air, such as dusts, mists, or fumes. Aerosols can be generated by both humans and environmental sources. These particles may be inhaled or absorbed by the skin and may remain airborne for extended periods in the indoor environment. (CDC Definitions)
Aerosol generating procedure	A procedure in dentistry that produces particles of respirable size (<5µm) during use of handpieces, ultrasonic scalers, and air/water syringes.
Alcohol-based hand rub (ABHR)	A liquid, gel or foam formulation of alcohol (e.g., ethanol, isopropanol) used to reduce the number of microorganisms on hands when the hands are not visibly soiled. ABHRs contain emollients to reduce skin irritation and are less time- consuming to use than washing with soap and water. (IPAC Canada) For healthcare in Canada, 60-90% ethanol is recommended. (IPAC Canada)
Anatomic waste	Biomedical waste that includes human tissues, organs and body parts but not including teeth. As biomedical waste, it requires special handling.
Antibacterial	A product that kills or suppresses the growth of bacteria, but not other microorganisms (PHAC)
Antibiotic-Resistant Organism (ARO)	Bacteria that have mutated and are no longer susceptible to one or more antibiotics (Health Canada)
Antimicrobial	A product that kills or suppresses the growth of microorganisms (PHAC)
Antimicrobial Soap/Antiseptic Soap	Antimicrobial soaps have residual antimicrobial activity and are not deactivated by the presence of organic material. Antimicrobial soap may be considered for use in critical care areas but is not required and not recommended in other care areas. (PICnet)
Antiseptic	A product with antimicrobial activity that is designed for use on skin or other superficial tissues; it removes or kills both transient and resident flora. The term is used for preparations applied to living tissue. (PHAC)
Asepsis	Prevention from contamination with microorganisms. Includes sterile conditions on tissues, on materials and in rooms, as obtained by excluding, removing, or killing organisms. (CDC Glossary for Oral Health)
Aseptic technique	The purposeful prevention of transfer of microorganisms from the patient's body surface to a normally sterile body site or from one person to another by keeping the microbe count to an irreducible minimum. Also referred to as sterile technique. (PHAC)
Bacterial endocarditis	A bacterial induced inflammation of the lining of the heart and its valves. (CDC Glossary)
Bioburden	Population of viable microorganisms on or in a product and/or a sterile barrier system (ISO TS 11139-18)

Biofilm	A dynamic accumulated mass of bacteria and extracellular material that is tightly adhered to a surface and cannot be easily removed, and which may protect bacteria within from being destroyed by disinfectants. (Health Canada)
Biological indicator (BI)	A test system containing viable microorganisms providing a defined resistance to a specified sterilization process. (ISO TS 11139-18)
Biomedical waste	Contaminated waste requiring special handling and disposal due to potential risk of disease transmission. Term further divides into anatomic waste and non-anatomic waste.
Borescope	An optical device (such as a prism or optical fiber) used to inspect an inaccessible space (Merriam-Webster medical dictionary)
Bowie-Dick test:	Diagnostic test of a sterilizer's ability to remove air from the chamber of a prevacuum steam sterilizer. The air-removal or Bowie-Dick test is not a test for sterilization. (Rutala)
CAN/CSA Z314-18	Document for Medical Device Reprocessing in Canada (Document's document, CSA)
Cavitation	A mechanical vibration effect that occurs when high-frequency sound waves are introduced into a solution. (CSA Z314-18)
Chemical indicator (CI)	A non-biological indicator test system that reveals change in one or more predefined process variables based on a chemical or physical change resulting from exposure to a process (ISO TS 11139-18)
Cidal	Kills microorganisms (usually applied to disinfectants) (Miller)
Clean	Visually free of soil
Clean area	Any area that has been decontaminated (cleaned followed by use of an appropriate surface disinfectant). (MDA)
Cleaner	A substance, or mixture of substances, that physically removes foreign material (e.g., soil, inorganic and organic material) from environmental surfaces and inanimate objects due to the detergent or enzymatic properties of the formulation. (Health Canada, Guidance Document)
Cleaning	The removal of visible soil, organic and inorganic contamination from a device or surface, using either the physical action of scrubbing with a surfactant or detergent and water or an energy-based process (e.g., ultrasonic cleaners) with appropriate chemical agents. (CDC) (A cleaning product is not defined the same as a sanitizer by Health Canada.)
Cleaning verification	Cleaning verified through products that ensure the removal of organic soil.
Clinical contact surfaces	Surfaces involved in patient care that become contaminated through aerosols or by healthcare workers touching objects. (MDA)
Compromised (packaging)	Sterile packages that are no longer sterile due to damage, faulty application of self-seal, packages that have fallen or been placed onto a wet surface or contaminated area, or unloading from the sterilizer when wet or hot. (MDA)
Contact time	The defined time for which surfaces of the medical device are exposed to a wet chemical or thermal disinfection process to achieve the appropriate level of disinfection or decontamination. (CSA Z314-18)
Contaminated	State of having been in contact with microorganisms. As used in healthcare, it generally refers to microorganisms capable of producing disease or infection. (CDC Glossary)

Contamination	The presence of microorganisms on inanimate objects (e.g., objects within the vicinity of the patient, patient bedding, medical devices) or microorganisms transported transiently on body surfaces, such as on hands, on fomites, or in substances (e.g., water, food, milk). (PHAC)
Contaminated sharps	Any item which has sharp point(s) or cutting edge(s) capable of causing injury by penetration, puncture, piercing or cutting of the skin when handled during patient treatment. (WRHA)
Culture of IPAC Safety	Shared commitment and demonstrated values, attitudes and actions of a healthcare organization that support the belief that the work environment is to be safe from infection and its transmission (IPAC Canada)
Cycle	For steam sterilization, the distinct phases that constitute a cycle are conditioning, exposure and drying.
Dead Leg	In dentistry, a DUWL which has a section of pipe or tubing that leads nowhere or to an outlet which is rarely or never used. These sections, which do not form part of a constant circulating system, are susceptible to high contamination counts. (Adapted from CSA Z314-18, Annex H)
Decontaminated	Safe to touch with bare hands (adapted from 'decontamination', Rutala).
Decontamination	Physical or chemical process that renders an inanimate object such as a dental device that may be contaminated with harmful microbes, safe for further handling.
Decontamination area	The area in medical device reprocessing before packaging.
Degassing	The removal of unwanted gases (especially air) from the cleaning solution in an ultrasonic cleaner. (CSA Z314-18)
Deionized water (DI):	Water that has been processed through an ion-exchange resin to remove ionized salts and particles from the water. (CSA Z314-18)
Demineralized water	Water that has been treated to remove minerals. (CSA Z314-18)
Device	See 'Medical device'. A piece of equipment or mechanism designed to serve a special purpose or perform a special function.
Dirty:	(Colloquial): Soiled, visibly soiled. See 'contaminated' (MDA)
Dirty area:	(Colloquial) Clinical or reprocessing area that has not been decontaminated and cannot be safely touched with bare hands. See 'contaminated' (MDA)
Disinfectant	A substance, or mixture of substances, capable of destroying or irreversibly inactivating pathogenic and potentially pathogenic microorganisms, but not necessarily bacterial spores. Disinfectants are used on environmental surfaces and inanimate objects. See 'microbicide' (Health Canada)
Disinfectant-sanitizer	A chemical product represented for use as a sanitizer on hard non-porous environmental surfaces and inanimate objects as a hard surface disinfectant.
Distilled water	Water heated to the boiling point, vaporized, cooled, condensed and collected so that no impurities are reintroduced. (CDC Glossary)
Doffing	To remove an article of wear from the body. This applies to removal of PPE and is performed in a specific order to reduce the risk of disease transmission to the healthcare provider. (CDC)

Donning	To put on or dress. This applies to placement of PPE which is done in a specific order to reduce the risk of exposure to disease-causing organisms. (CDC)
Drug Identification Number (DIN)	A computer-generated eight-digit number assigned by Health Canada to a drug or product prior to being sold in Canada. (Health Canada)
Efficacy	The extent to which a specific intervention, procedure, regimen or service produces a beneficial result under ideal conditions. Efficacy is based on the results of a randomized controlled trial. (PHAC)
Employer	Includes every person who, by himself or his agent or representative, employs or engages one or more workers. (The Workplace Safety and Health Act)
Emulating indicator (Type 6)	An internal indicator that responds to all critical parameters of the sterilization process for a specified sterilization cycle. (See Annex 16, Description of Chemical Indicators)
Engineering Controls	Mechanical measures that are put in place to reduce the risk of infection to staff or patients. (IPAC Canada)
Environmental surfaces	Those surfaces that are used in patient care but do not contact the patient directly and are divided into housekeeping surfaces and clinical contact surfaces (MDA)
Enzymatic detergent	A formulated pre-cleaning agent that contains enzymes that breaks down proteins such as blood, body fluids, secretions and excretions from surfaces. Detergents contain a surfactant and are used to loosen and dissolve organic substances prior to cleaning. (CSA Z314-18)
Enzyme	Complex proteins that speed up the rate of a chemical reaction in a living organism. (MDA)
Event-related shelf life:	A properly packaged item that has undergone a validated sterilization process and is considered sterile until an event occurs that could breach the protection provided by the packaging (e.g., through wetting, tearing or dropping). (CSA Z314-18)
Flash sterilization	Term that has been replaced by 'immediate use steam sterilization' (IUSS)
Fit-test	A qualitative or quantitative method to evaluate the fit of a specific make, model and size of an N95 respirator on an individual. (IPAC Canada)
Fomites	Objects in the inanimate environment that may become contaminated with microorganisms and serve as a vehicle of transmission. (Rutala)
Functionality	Determination through inspection and/or testing that a device will perform as intended. (MDA)
General waste	Waste that does not pose a disease- related risk or threat to people or the environment. Examples are soiled gauze or dressings, disposable gloves, teeth.
High-level disinfectant:	A substance, or mixture of substances, capable of destroying or irreversibly inactivating all microbial pathogens, but not necessarily large numbers of bacterial spores. (Health Canada)
Hospital disinfectant	A substance, or mixture of substances, capable of destroying both gram-positive bacteria and gram-negative bacteria present on non- critical medical devices, environmental surfaces and inanimate objects. For use in hospitals, medical clinics, dental clinics or any other healthcare-related facility (Health Canada)

Immediate-use steam sterilization (IUSS)	Previously called flash sterilization: sterilization without use of packaging.
Incubator	Apparatus for maintaining a constant and suitable temperature for the growth and cultivation of microorganisms. (Rutala)
Infection Prevention and Control (IPAC):	Evidence- based practices and procedures that, when applied consistently in healthcare settings, can prevent or reduce the risk of transmission of microorganisms to healthcare providers, patients and visitors. (PICnet)
Infection Prevention and Control Coordinator (IPACC):	The IPACC will be a team member who will organize, coordinate, establish and maintain a culture of safety in the dental practice.
Installation qualification	Process of obtaining and documenting evidence that equipment has been provided and installed in accordance with its specification (ISO TS 11139-18)
Instrument air	A medical support gas intended for powering devices unrelated to human respiration (e.g., surgical tools). (CSA Z314-18)
Integrating indicator (Type 5)	An internal indicator that responds to all critical parameters of the sterilization process. Type 5 CIs are correlated to the performance of biological indicators (BIs). (See also Annex 16, Description of Chemical Indicators)
Intermediate-level disinfectant	A substance, or mixture of substances, capable of destroying or irreversibly inactivating all microbial pathogens, including mycobacteria but not bacterial spores.
IPAC Risk	IPAC-related threats or negative outcomes that can be expected to occur if a particular operation or practice does not meet the document (i.e., is not performed or is performed incorrectly) (IPAC Canada)
Low-level disinfectant	A substance, or mixture of substances, capable of destroying or irreversibly inactivating, at a minimum, vegetative bacteria. (Health Canada)
Lumen	Interior path through a needle, tube or surgical instrument (IAHCSMM Central Service Technical Manual, 8th Ed)
Manufacturers' instructions for use (MIFUs)	Written directions provided by the manufacturer or distributor of a product that contain the necessary information for all steps of reprocessing. • All products purchased should include written "validated" instructions for use. At the present time, not all MIFUs will be validated. • Any questions or discrepancies regarding the appropriateness of the instructions should be resolved before the product is purchased and used by communicating with the manufacturer. (adapted from CSA Z314-18)
Mechanical monitoring	Readings of time, temperature and pressure from sterilizer gauges and readouts to determine the use and functioning of sterilizers. Same as 'physical monitoring'. (Miller 6th Edition)
Medical device	Any article, instrument or apparatus intended to diagnose, treat, manage or prevent disease or other health conditions. (Health Canada: Food and Drugs Act)
Medical device reprocessing	See 'Reprocessing'
Medical device reprocessing staff	A team member who has been trained specifically for reprocessing instruments and devices for patient use.

Microbicide	See 'disinfectant'
Must	Shall
Mycobactericide	A substance, or mixture of substances, capable of destroying or irreversibly inactivating mycobacteria present on environmental surfaces or inanimate objects. Also referred to as a tuberculocide on labels but mycobactericide is preferred. (Health Canada)
N95 Respirator	A PPE (mask) covers the nose and mouth and should be fit-tested to reduce the wearer's risk of inhaling airborne particles.
Needlestick injury	Wounds caused by needles that accidentally puncture the skin. (CCOHS)
Non-anatomic waste	Biomedical waste saturated with blood and capable of releasing blood during handling. Requires special handling. (WRHA)
Office	Facility that delivers oral healthcare (private, institutional, hospital based) (MDA)
One-way workflow	The practice of ensuring that reprocessing work flows in one direction – from the dirtiest to the cleanest – thereby reducing the microbial load throughout the stages of reprocessing.
Operational qualification (OQ)	The process of obtaining and documenting evidence that installed equipment operates within predetermined limits when used in accordance with its operational procedures. (CSA Z314-18)
Oral Healthcare Provider (OHCP)	The term is used to describe dental professionals of varying designations involved in oral healthcare.
Owner	In relation to any land or premises used or to be used as a workplace; includes (a) a trustee, receiver, mortgagee in possession, tenant, lessee, licensee or occupier of the land or premises, and (b) a person who acts for or on behalf of an owner as an agent or delegate. (The Workplace Safety and Health Act)
Performance qualification (PQ)	The process of obtaining and documenting evidence that the equipment, as installed and operated in accordance with operational procedures, consistently performs in accordance with predetermined criteria, and thereby yields product meeting its specification. (CSA Z314-18)
Persistence	A reduction in skin flora which maintains an extended and low microbial release from the skin due to slow regrowth of the resident microflora. (Health Canada)
Physical monitoring	See 'mechanical monitoring'
Plain soap	Detergents that do not contain antimicrobial agents or that contain very low concentrations of antimicrobial agents that are present only as preservatives. (PICnet)
Point-of-care	The place where the following three elements occur together: the patient, the healthcare worker and care or treatment involving contact with the patient or his/her surroundings (within the patient zone). Point-of-care products should be accessible without leaving the patient zone. (PHAC). Point of care and "point of use" have been used interchangeably in IPC documents.
Point-of-care Risk Assessment (PCRA)	A PCRA is an activity whereby a health care worker (in any healthcare setting in a continuum of care): • Evaluates the likelihood of exposure to an infectious agent • Chooses the appropriate actions or PPE needed to minimize the risk of exposure (Preventing the Transmission of Infection in Healthcare-MHSAL)

Post-exposure prophylaxis	The administration of medications following an occupational exposure in an attempt to prevent infection. (CDC)
Practice (Noun)	A dentist's practice is his/her business, often interchanged with the words facility or office.
Practise (Verb)	The act of practising a skill repeatedly to maintain one's proficiency, e.g., profession of dentistry.
Prion	Proteinaceous infectious particles that are transmissible pathogenic agents which cause a variety of progressive neurodegenerative diseases of the central nervous system in humans and animals. Prions demonstrate a high level of resistance to inactivation by sterilization processes and disinfectants. (Health Canada)
Process challenge device (PCD)	A PCD is challenge tests pack or test tray that contains a biologic indicator, a Class 5 integrating indicator, or an enzyme-only indicator. A PCD is used to assess the effectiveness of the sterilization process by simulating the product to be sterilized, and to be representative of a defined challenge to the sterilization process. PCDs are either a validated commercial or a created in-house test package. (Rutala) (See also Annex 17, Creating an In-house Test Package)
Process indicator (Type 1)	An external indicator that is used to demonstrate that an item has been exposed to a sterilization process, and to distinguish between processed and non-processed items. (CSA Z314-18)
Protein Verification Tool	Chemical used on a device after cleaning to assess residual protein levels on surface being tested (CSA Z314-18 12.4.7.2.4)
Recall	Medical devices, appliances, products or instruments that have been removed from use in a healthcare setting. A recall is done due to inadequate reprocessing, improper storage, breach in the sterile environment or notification of an alert or recall. (CSA Z314-18)
Recommended	Should
Reprocessing	The series of steps required to make medical devices safe for use on patients. (MDA)
Resident Organisms	Those organisms normally permanently resident on the skin. (Health Canada)
Retraction	The entry of oral fluids and microorganisms into waterlines through negative water pressure. (CDC Glossary)
Routine Practices	IPC practices for use in the routine care of ALL patients at ALL times in ALL healthcare settings, and are determined by patient characteristics, the environment and the task to be performed. (MHSAL)
Sanitizer	A substance, or mixture of substances, that reduces the bacterial population on environmental surfaces and inanimate objects by significant numbers (e.g., a minimum 3 log10 reduction) due to the antimicrobial action of the active ingredient(s), but which does not destroy all bacteria.
Shall	Must
Sharps	Any object that is able to cut the skin can be considered a "sharp". (CCOHS)
Sharps injury	Wound to the skin caused by any instrument capable of causing injury during healthcare procedures. (MDA)
Shelf Life (Date or Time related)	Policy whereby sterile packages are only stored for a specified length of time (e.g., six months) determined by the healthcare facility or MIFUs.

Should	Recommended
Significant exposure	An injury during which one person's blood or other high-risk body fluid comes in contact with another person's body cavity; subcutaneous tissue, or non-intact, chapped, abraded skin or mucous membrane. (WRHA)
Soil	Organic and inorganic materials on surfaces. Also see 'visibly soiled'.
Spaulding classification	Classifies a medical device as critical, semicritical or noncritical on the basis of patient risk. It also establishes three levels of germicidal activity, i.e., sterilization, high-level disinfection and low- level disinfection. (Rutala)
Specialty indicator (Type 2)	An indicator that is designed for use in specific test procedures in certain sterilizers (e.g., pre-vacuum sterilizers).
Steam quality	The quality of steam as it relates to the dryness fraction and the level of non-condensable gas used during sterilization. The dryness fraction should not fall below 97%. (Rutala)
Sterile	Free from viable microorganisms. (CSA Z314-18)
Sterile barrier system	Minimum package that prevents ingress of microorganisms and allows aseptic presentation of product at the point of use. (ISO TS 11139-18)
Sterilizer (Dynamic air removal)	The evacuation of air from the sterilization chamber and the load by mechanical means (pressure or vacuum) at the beginning of the sterilization cycle. (CAN/CSA Z314-18) Notes: 1. Pre-vacuum sterilizers depend on one or more pressure and vacuum excursions at the beginning of the cycle to remove air. This type of dynamic air removal allows the use of shorter cycle times for wrapped items because of the rapid removal of air from the chamber and the load by the vacuum system. This type of sterilizer can also achieve accelerated drying of loads by an additional vacuum at the end of the sterilization cycle. 2. Steam-flush pressure-pulse steam sterilizers use steam flushes and pressure pulses to remove air from the sterilizing chamber and the load. This system uses steam at higher than atmospheric pressure, rather than vacuum, and is therefore less susceptible to air leaks.
Surfactant	Agent that reduces the surface tension of water or the tension at the interface between water and another liquid; a wetting agent found in many sterilants and disinfectants. (Rutala)
Surgical	Related to or used in surgery, and something done with great precision.
Traceability	Transferring the information from the label of the sterile packages/devices to the patient chart for the purpose of identifying and matching devices used for patient care to biological monitoring logs for individual sterilizers.
Transient organisms	Recent contaminants of the hands acquired from colonized or infected patients, a contaminated environment or contaminated equipment. (PHAC)
Use-life	The length of time a diluted product can remain active and effective. (Rutala)
Utility gloves	Heavy duty gloves used to prevent injury from chemicals and punctures. (MDA)
Validation	Documented procedure for obtaining, recording and interpreting a process that will consistently comply with predetermined specifications. (ISO TS 11139-18)

Vector	A living organism that transfers a pathogen from one person to another. (CDC)
Verification	Confirmation that following validated instructions has achieved the desired results. (Z314-18). Applies to processes such as cleaning and sterilization monitoring.
Verified clean	Use of chemicals to determine that organic materials have been removed from the device when the material cannot be detected visually. See 'Protein Verification Tool' (ISO 11139:2018)
Visibly soiled	Hands or surfaces on which dirt, blood or body fluids can be seen. (PICnet, IPAC 2016)
Virucide	A disinfectant represented as having efficacy against any specific virus (i.e., the product has demonstrated "virucidal" efficacy). (Health Canada)
Washer	Equipment designed to clean product (ISO 11139:2018)
Washer-disinfector	Equipment designed to clean and disinfect product (ISO 11139:2018)
Wicking	Absorption of a liquid by capillary action along a thread or through the material (e.g., the enhanced penetration of liquids through undetected holes in a glove). (CDC Glossary of Dental Terms)