Standards of Practice for Chiropodists and Podiatrists

Infection Prevention and Control

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Table of Contents

INTRODUCTION

Infection prevention and control (IPAC) is an integral part of patient care. Concerns regarding the possible spread of infections such as blood-borne viruses (e.g., HBV, HCV, HIV) have prompted ongoing reassessment, update and improvement of IPAC practices.

Infection prevention and control is an important part of safe patient care. Concerns about the possible spread of blood-borne diseases and the impact of emerging, highly contagious respiratory and other illnesses, require chiropodists and podiatrists to establish, evaluate, continually update, and monitor their IPAC strategies and protocols.

These Standards of Practice are broader than the previous versions and reflect current knowledge of the transmission of infection and how to prevent and control it.

The College has revised its IPAC standards to meet the needs of its members and to provide safe foot care to the public of Ontario. These standards reflect current knowledge of the prevention and control of transmission of infection using IPAC Best Practices from the Provincial Infectious Diseases Advisory Committee (PIDAC).

ROUTINE PRACTICES

Basic Principles

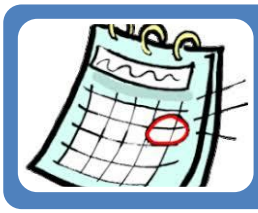
In health care, the chain of transmission represents the transmission of microorganisms and infection. Each link of the chain signifies a factor related to the spread of microorganisms. All six elements of the chain are needed for transmission of microorganisms to occur. The six elements are:

1. The agent – bacteria, fungi, viruses, parasites, and prions
2. The reservoir – people, water, and food
3. The portal of exit – blood, secretions, excretions, and skin
4. The mode of transmission – contact, droplet, airborne
5. The portal of entry – mucous membranes and broken skin
6. The host – diabetics, elderly population, and immunosuppressed patients

Routine Practices are a set of risk reduction measures for healthcare workers whenever they encounter blood, body fluids, secretions, excretions, mucous membranes, non-intact skin, or soiled items. Routine Practices are based on the premise that all patients are potentially infectious, even when they are asymptomatic, and must be applied during all interactions/procedures.

Risk Assessment and Screening

Important to the development of any IPAC program and procedures is the understanding that not all interactions/procedures carry the same level of risk of infectious disease transmission and, hence, may not require the same level of precaution. The first step in the effective use of Routine Practices is to perform a risk assessment. A point-of-care risk assessment is applied before every interaction with the patient and at all stages of the interaction with the patient, including asking questions about symptoms of an infectious illness:



At the time of booking, if appropriate (e.g., when booking on the same day or booking a next day appointment)

Upon arrival in the waiting room

In the examination/treatment room

A thorough medical history and clinical examination should be taken at the initial patient appointment and updated at all recall visits. Screening may be used for modifying IPAC practices, if necessary. Where there is a risk of transmission of infection based on the risk assessment, precautions may be put into place to reduce one's risk of acquiring or transmitting infection. While hand hygiene is always required, the risk assessment will indicate when personal protective equipment (PPE) is to be worn.

Task Level	Exposure Type	PPE
1 Surgical	Involves the exposure to blood, blood- contaminated fluid or non-intact tissue.	Gloves, gown, facial protection
2 Routine	May involve the exposure to blood, blood- contaminated fluid or non- intact tissue.	Gloves, gown, facial protection
3 Other (e.g. consultations)	Involves no exposure to blood, body fluids or tissue	Based on risk assessment

Additional factors to consider when completing a risk assessment include:

- Immunization and the health status of the member
- Hazards inherent in the procedure itself
- State of the member's skin
- Skill of the member
- Level of cooperativeness of the patient
- Type of practice situation (e.g., setting in which care is provided and the type of procedure performed)
- Physical setting (e.g., crowded room)

Hand Hygiene

Hand hygiene relates to the removal of visible soil and removal or killing of transient microorganisms from the hands while maintaining good skin integrity. It is considered the most important and effective IPAC measure to prevent the spread of health care-associated infections.

Alcohol-based hand rub (ABHR), preferably 70%, is considered the preferred method of decontaminating hands in clinical situations when hands are not visibly soiled. ABHR provides for a rapid kill of most transient microorganisms, is less time-consuming than washing with soap and water and is easier on skin. When soiled, hands should be thoroughly washed using soap and water. Bar soaps must not be used.

Perform hand hygiene according to the 4 Moments for Hand Hygiene as described in Ontario's Just Clean Your Hands Program. Additionally, hand hygiene is performed following personal hygiene activities. Refer to Appendix A Ontario's Just Clean Your Hands Program: *Your 4 Moments for Hand Hygiene*.

Alcohol-Based Hand Rub (ABHR)

ABHR available for clinical office settings ranges in concentration from 60 to 90 per cent alcohol. Norovirus is inactivated by alcohol concentrations ranging from 70 to 90 per cent. For this reason, a minimum of 70 per cent alcohol should be chosen.

ABHR products being considered for purchase must have a Drug Identification Number (DIN) or Natural Product Number (NPN) from Health Canada.

Hand Washing Soaps

Plain soaps act on hands by emulsifying dirt and organic substances (e.g., blood, mucus), which are then flushed away with rinsing. Plain liquid soap is sufficient for general clinical office practice. Bar Soaps must not be used.

ABHR and liquid soap must be dispensed in disposable containers and must not be "topped up".

Personal Protective Equipment (PPE)

Personal protective equipment (PPE) is worn as part of Routine Practices to prevent transmission of microorganisms from patient-to-staff and from staff-to-patient. PPE includes gloves, masks, facial protection, eye protection, and gown/clinical attire. PPE is used alone or in combination to prevent exposure, by placing a barrier between the infectious source and one's own mucous membranes, airways, skin and clothing. The selection of PPE is based on the nature of the interaction with the patient and/or the likely mode(s) of transmission of infectious agents.

Table of Personal Protective Equipment (PPE)	
Gloves	Non-sterile examination gloves shall be worn for all procedures. Gloves must be changed between patients. Sterile gloves shall be worn for invasive/surgical procedures. **Hands must be cleaned before donning gloves and after removing gloves.**
Masks	A mask and eye protection should be worn to reduce the exposure to aerosolized organisms during filing of nails. Masks should be changed between patients and/or when wet. Masks lose their effectiveness when wet. The member/assistant shall wear a mask and eye protection while performing a surgical procedure.
Respirators	N95 respirators are recommended by MOL for nail filing, particularly if the equipment does not include dust extraction or water spray. Clinical office settings that use respirators shall have a respiratory protection program in place. The program shall include a health assessment, N95 respirator fit-testing and staff training in the proper way to perform a seal-check. Additional information can be found in PIDAC's Clinical Office Practice, pg. 23.
Facial/Eye Protection	Impact resistant safety glasses, goggles, splash guards, or facial shields should be worn to protect the face from nail clippings and debris, as well as splashes and sprays contaminated with blood or other body fluids. Prescription eye glasses are not acceptable as eye protection as they do not provide sufficient protection from splashes around the top and sides of the glasses.
Clinical Attire	The member/assistant shall wear appropriate attire that is clean and washable (e.g., clothing/scrubs) for all routine and non-invasive procedures.
Gown	The member/assistant shall wear a sterile surgical gown and hair cover while performing invasive surgical procedures (below the dermis). Gowns should be cuffed and long sleeved, and offer full coverage of the body front, from neck to mid-thigh or below.

Additional Precautions (Transmission-Based Precautions)

Additional precautions refer to IPAC interventions (e.g., barrier equipment, accommodation, additional environmental controls) to be used **in addition to** Routine Practices to protect staff and patients and interrupt transmission of certain infectious agents that are suspected or identified in a patient.

Additional Precautions are based on the mode of transmission (e.g., direct or indirect contact, airborne or droplet). There are three categories of Additional Precautions: Contact Precautions, Droplet Precautions and Airborne Precautions.

Example of Additional Precautions to be used based on the mode of transmission of some infectious diseases are listed in Appendix B:

Many infections for which Additional Precautions are indicated are reportable under the Health Protection and Promotion Act. There infections shall be reported to public health to enable appropriate investigation and case finding.

Additional Resources

For more information about Additional Precautions, refer to PIDAC's *Routine Practices and Additional Precautions in All Health Care Settings*, available at: www.publichealthontario.ca/en/eRepository/RRAP_All_Healthcare_Settings_ENG2012.pdf.

Locate public health units: www.phdapps.health.gov.on.ca/PHULocator/.

MEDICATIONS AND SKIN ANTISEPSIS

Additional Resources

For more information refer to PIDAC's *Clinical Office Practice* available at: https://www.publichealthontario.ca/en/eRepository/IPAC_Clinical_Office_Practice_2013.pdf

General Principles

General principles related to use and storage of medications include:

- Store medications in areas where access is secured and inaccessible to non-authorized persons.
- Provide facilities for hand hygiene in the area where medications are prepared.
- Provide a puncture-resistant sharps container that is accessible at point-of-use.
- Store and prepare medications and supplies in a clean area on a clean surface.
- Date opened containers of sterile solutions and discard every 24 hours and/or according to manufacturer's instructions.
- Discard outdated medications. There should be a process in place to check expiry dates before use.

Safe Administration of Injectables

The transmission of blood-borne viruses and other microbial pathogens to patients during routine health care procedures continues to occur due to unsafe and improper injection, infusion and medication vial practices being used by health care professionals within various clinical offices.

The following practices should be adhered to when preparing and administering injectable medications:

1. Aseptic Technique
a. **Perform hand hygiene prior to accessing supplies, handling vials and IV solutions, and preparing or administering medications.**
b. **Use aseptic technique in all aspects of parenteral medication administration, medication vial use, injections, and glucose monitoring procedures. Limit access to select trained individuals, if possible.**
c. **Never administer medication from the same syringe to more than one patient, even if the needle is changed between patients.**
d. **Never store needles and syringes unwrapped as sterility cannot be assured.**
e. **Do not set up administration sets ahead of time. Once set up, an administration set should be covered.**
f. **Do not use intravenous solution bags as a common source of supply for multiple patients.**

2. Single Dose Vials
Single dose vials, intended for single patient use, typically lack preservatives. The use of these vials for multiple patients carries substantial risk for bacterial contamination and infection.
a. **Do not reuse single dose vials. Enter the vial once and then immediately discard it.**
b. **Always use a sterile syringe and needle/cannula when entering a vial. Never enter a vial with a syringe or needle/cannula that has been used on a patient.**
c. **Never combine or pool the leftover contents of single dose vials.**

3. Multidose Vials	
a.	**All needles are SINGLE PATIENT USE ONLY.**
b.	**All syringes are SINGLE PATIENT USE ONLY.**
c.	**NEVER re-enter a vial with a used needle OR used syringe.**
d.	**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.**
e.	**Use multidose vial for a single patient whenever possible and mark the vial with the patient's name.**
f.	**Mark the multidose vial with the date it was first used and ensure that it is discarded at the appropriate time.**
g.	**Adhere to aseptic technique when accessing multidose vials. Multidose vials should be accessed on a surface that is clean and where no dirty, used or potentially contaminated equipment is placed or stored. 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.**
h.	**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.**
i.	**Review the product leaflet for recommended duration of use after entry of the multidose vial. Discard opened multidose vials according to the manufacturer's instructions or within 28 days, whichever is shorter**

Additional Resources

Refer to COCOO Standards of Practice, *Administration of Injectable Substances (Including Local Anaesthesia),* http://cocoo.on.ca/standards-of-practice/.

Sterile Irrigation Solutions

- Check expiration date of solutions before each use.
- Discard open bottles at the end of each day.
- Use small bottles, if possible, and store according to manufacturer's recommendations.

Antiseptic Agents for Skin Antisepsis

All patients shall have their feet cleaned/swabbed with an antiseptic before and after all routine procedures and before all surgical procedures. An "antiseptic" is an antimicrobial substance that can be used on human skin or tissue. Antiseptics are also used to prepare the patient's skin before invasive procedures (skin prep). To be effective, an antiseptic must be allowed to dry after application according to manufacturer's instructions. The choice of antiseptic will depend on its use (e.g., removal of corn).

The following antiseptics are used as skin preps:

➢ 2% chlorhexidine gluconate (CHG) in 70% isopropyl alcohol
➢ 70% isopropyl alcohol
➢ 2% CHG with 4% alcohol preservative
➢ 10% povidone iodine followed by 70% isopropyl alcohol
➢ 7.5% povidone iodine (scrub) followed by 70% isopropyl alcohol
➢ 4% CHG (pre-op preparation)

CONTROL OF THE ENVIRONMENT

Cleaning the Environment

Clinical office settings may be categorized into three components for the purposes of environmental cleaning:

Public component	•The public areas of the clinical office that are not involved in patient care. This includes waiting rooms, offices, corridors and service areas. Areas designated in the public component are cleaned with a detergent.
Clinical component	•The area involved in patient care. This comprises the clinical areas of the office, including examination rooms, procedure rooms, bathrooms and diagnostic and treatment areas. Areas designated in the clinical component are cleaned with a detergent and then disinfected with a hospital-grade disinfectant. 'High-touch' surfaces may require more frequent cleaning.
Surgical component	•The area involved in surgical and invasive (e.g., below dermis) procedures. Areas designated in the surgical component are cleaned and disinfected according to standards set by the Operating Room Nurses Association of Canada (ORNAC).

Environmental cleaning of these three component areas must be categorized and resourced differently in terms of cleaning priority, intensity, frequency and human resources. Responsibility for cleaning needs to be clearly defined and understood by the operator/owner and those responsible for cleaning and disinfecting the area.

There are high-touch (i.e., frequently touched) surfaces in the immediate vicinity of a patient that may be a reservoir for pathogens. These pathogens can be transmitted directly or indirectly by the hands of members. Cleaning and disinfection of these high-touch surfaces is usually done at least daily and more frequently if the risk of environmental contamination is higher.

All treatment rooms/areas including the floors and the walls should be cleaned on a routine basis and when visibly soiled. The floor should be swept after each patient.

Barriers such as equipment covers or drapes can assist in preventing the contamination of environmental surfaces that are likely to become contaminated. For example, the towel used to cover the footrest shall be changed after each patient. If the foot of the patient is positioned on the lap of the member, a disposable gown, apron, towel, or a clean towel should protect the clothing.

Surface contamination is further reduced by removing unnecessary items on countertops, by using over-gloves/double gloves or transfer forceps to remove additional instruments from a drawer, and by maintaining clinical notes and x-ray viewers away from the treatment area.

Additional Resources

Refer to COCOO Standards of Practice, *Safety and the Practice Environment*, http://cocoo.on.ca/standards-of-practice/.

Waste Management and Disposal of Sharps

Waste from any clinical office setting is divided into two categories: biomedical and general. Management of contaminated infectious waste shall follow provincial regulations and local bylaws and address issues such as the collection, storage, transport, handling and disposal of contaminated waste, including sharps and biomedical waste. Waste shall be contained in a securely closed plastic bag of sufficient thickness to prevent puncturing.

Contaminated sharps, such as needles, scalpel blades and other instruments must be considered potentially infective and hence, handled with extreme care. Precautions should be taken when passing instruments and removing blades from scalpel handles to avoid needlestick/sharps injuries. Needle recapping should be avoided. Single use, safety-engineered needles are mandated according to the *Needle Safety Regulation* (O. Reg 474/07). www.ontario.ca/laws/regulation/070474

Sharps shall be disposed of in a dedicated, puncture-resistant, leak proof container with a tight-fitting lid bearing a clearly identifiable biological hazard label in every “point of use” area (e.g., exam/treatment area). Used sharps are considered biomedical waste.

It is recommended that each office be equipped with a magnet for retrieval of broken or dropped needles/sharps. Sharps shall be managed according to current legislation and national standards.

REPROCESSING MEDICAL EQUIPMENT

General Principles for Reprocessing (Cleaning, Disinfection, and Sterilization)

Reusable medical equipment/devices must be cleanable and be able to be disinfected or sterilized as appropriate for the equipment. This may not be cost-effective or timely for small establishments, and other options should be considered. The amount and frequency of equipment use should guide whether reprocessing is feasible or whether disposable equipment is more cost-effective.

There **must** be written procedures for cleaning and disinfection/sterilization of equipment/devices used. Procedures must be reviewed and revised regularly.

Reprocessing Methods

The classification system developed by Spaulding divides medical equipment/devices into three categories, based on the potential risk of infection involved in their use.

The level of reprocessing required for medical equipment/devices is determined by Spaulding's criteria.

Class	Use	Minimum Level of Reprocessing	Examples
Critical	Enters sterile body site, including the vascular system	Cleaning followed by sterilization	▪ Surgical instruments ▪ Biopsy instruments ▪ Foot care/podiatry equipment
Semicritical	Comes in contact with non-intact skin or mucous membranes but does not penetrate them	Cleaning followed by high-level disinfection Sterilization is preferred	▪ Vaginal specula ▪ Endoscopes ▪ Anaesthesia equipment ▪ Tonometer
Noncritical	Touches only intact skin and not mucous membranes, or does not directly touch the patient	Cleaning followed by low-level disinfection (in some cases, cleaning alone is acceptable)	▪ ECG machines ▪ Oximeters ▪ Stethoscopes

Single-Use Medical Devices

Critical and semi-critical medical equipment/devices (e.g., sterile blades and rotary tool disks) labelled as single-use must not be reprocessed.

Requirements for Staff Training

In settings where reprocessing is performed on site or where surgical procedures are done, there must be a designated individual(s) responsible for reprocessing, with:

- Training to the level that is required for the volume and complexity of the equipment to be reprocessed;
- Documentation of training, including a training manual that is reviewed annually and updated as required; and
- Ongoing continuing education.

Additional Resources

Refer to PIDAC's Cleaning, Disinfection and Sterilization of Medical Equipment/Devices in All Health Care Settings (3rd edition) document for resources for training in reprocessing.
https://www.publichealthontario.ca/en/eRepository/PIDAC_Cleaning_Disinfection_and_Sterilization_2013.pdf

Requirements for Reprocessing Space

The reprocessing of equipment/devices must be performed in a designated area away from patients and clean areas. At a minimum:

- The reprocessing area shall be physically separated from clean areas by cleanable walls, partitions, or other barriers
- Surfaces in the reprocessing area must be easily cleaned and disinfected
- There is a one-way work flow from dirty to clean to prevent cross-contamination
- An eyewash station must be located in the reprocessing area
- A dedicated hand washing sink and/or ABHR is located in the designated reprocessing area
- PPE shall be available for staff involved in reprocessing and shall be worn based on risk assessment

There must be a regular schedule for environmental cleaning in the reprocessing area that includes written procedures and clearly defined responsibilities.

Transport of Contaminated Equipment

Transport of used medical equipment from the procedure area/other location to the site of reprocessing must be done in such a way as to avoid contamination of the environment. Trays or covered containers designed to prevent the spill of liquids must be used for handling and transporting soiled medical equipment/devices. Trays or containers used to transport soiled equipment must be cleaned after each use. When transporting soiled items, ensure there is no cross-contamination with sterile/clean items being transported off-site (i.e., providing care in the home or at another location).

Instrument Cleaning

Reusable medical equipment/devices must be thoroughly pre-cleaned/cleaned before sterilization. The process of cleaning physically removes contaminants from the equipment/device, rather than killing microorganisms. If an item is not cleaned, soil (e.g., blood, body fluids, dirt) can protect the microorganisms from the action of the sterilization process making it ineffective, as well as inactivate the disinfectant or sterilant so that it does not work. Pre-cleaning involves the removal of gross soiling. Manual cleaning is done using a detergent or enzymatic solution. Whenever possible, clean equipment/instruments by mechanical means; ultrasonic washers are strongly recommended for any semi-critical or critical medical equipment/instrument that has joints, crevices, lumens or other areas that are difficult to clean. Ultrasonic washers, if used, must be tested for efficacy at least weekly or according to manufacturer's instructions for use (MIFUs). Ultrasonic washers receive documented preventative maintenance.

Recommendations for cleaning medical equipment/devices:

- Follow the instrument manufacturer's guidelines for cleaning.
- Contaminated medical instruments/devices are kept separate from clean items.
- Gross soil is removed from medical instruments/devices at point-of-use, prior to cleaning.
- Those who handle and clean contaminated equipment/devices must wear PPE based on risk assessment (e.g., facial protection, gloves, and gown).
- Clean instruments as soon as possible after use so that organic material will not dry on it. If there will be a delay in reprocessing, soak the instrument in an approved instrument soaking solution.
- Detergent or enzymatic cleaning solution is discarded after each use.
- Medical instruments/devices are dried prior to sterilization (e.g., with lint-free cloth).
- Visually inspect the instrument after cleaning and prior to sterilization to ensure cleanliness and integrity of the instrument.

CHECKLIST FOR INSTRUMENT CLEANING TO ENSURE EFFECTIVE STERILIZATION AND DISINFECTION

- Disassemble pieces of equipment according to manufacturer's instructions.
- Ensure that reprocessing method used on the equipment/device meets Spaulding's criteria (Table 2). Where the level of reprocessing recommended by the manufacturer is not in agreement with Spaulding's criteria, the higher level must be used.
- Remove organic material, such as mucus, blood, pus, faeces, saliva, etc., prior to cleaning.
- When cleaning equipment/devices, pay special attention to rough or porous surfaces (e.g., ridges, ribbing, grooves); long, narrow lumens and channels; and hinges, cracks, coils, valves, joints, clamps or crevices that may trap microorganisms.
- Items made of rubber or plastic may require special treatment as they may be degraded by heat and/or some chemical products.
- Mix and/or dilute chemical products according to the manufacturer's instructions. Be aware of the product manufacturer's recommendations regarding water hardness, temperature and pH, which might interfere with the action of some chemical products.
- Check the product expiry date before use and discard expired products.
- Use chemical test strips for all high-level liquid disinfectants to assess their efficacy.
- Ensure adequate exposure (contact) time between equipment/device and the sterilant/disinfectant.
- Dry equipment/devices after cleaning, before disinfection or sterilization with liquid products, to prevent dilution of the disinfectant/ sterilant.

Packaging Instruments

Equipment/devices that are to be sterilized require wrapping prior to sterilization. Materials used for wrapping shall be prepared in a manner that will allow adequate air removal, steam penetration and evacuation to all surfaces (e.g., no over-filling, instruments in the open position). The most common wrapping materials for the clinical office are plastic/peel pouches. They are easy to use, often with features such as self-sealing closures and chemical indicator strips, and come in a variety of sizes that can accept single or small groups of instruments. The date of sterilization should be marked on the product wrapping.

Sterilization

Sterilization is a process by which all microorganisms, including bacteria, viruses, spores and fungi are killed. All critical and semi-critical medical instruments (including drill burs or bits) shall be steam or gas sterilized in instrument wraps, cases, or plastic/peel pouches using an autoclave before use on a patient. Regular autoclave maintenance must be performed as per manufacturer's instructions.

Considerations when sterilizing medical instruments/devices:

- Develop written policies and procedures for sterilization of medical instruments/devices used in the clinical office setting that include cleaning, drying, inspection, disassembly, wrapping, sealing and labelling.
- Ensure that the manufacturer's instructions for installation, operation, cleaning and preventative maintenance of the sterilizing equipment are followed.
- Staff must be trained to operate sterilizers.
- Test all sterilizers for performance using physical, chemical and biological monitors and indicators.

A new disposable sterile blade must be used for each patient and disposed of after use. All instruments shall be sterile before commencing any routine treatment or surgery and the sterile packs or cases shall be opened in the presence of each patient. If there is contamination through a break in sterile technique, the instrument shall be removed from the operative site and a sterile substitute shall be used. All instrument packs shall be double wrapped or transferred directly from a steam sterilizer for surgical procedures.

Monitoring of Sterilization Process

The sterilization process shall be monitored to ensure the integrity of the process. A logbook must be kept for each sterilizer load. Performance monitoring includes physical, biological and chemical indicators and all three processes shall be used.

The following requirements apply to **physical monitoring:**

- Physical Indicators (i.e., cycle time, temperature, and pressure) must be checked (via mechanical display, printout, or USB), verified, and signed for each sterilizer cycle by the person sterilizing the instruments.
- Package must have load control label (sterilizer number (if applicable), load number (if applicable) and date of sterilization).

Chemical Indicators are placed appropriately in and/or on each package, if not part of the pouch/pack wrap.

- There is an externally visible type I Chemical Indicator (CI) on each package/container.
- An internal Chemical Indicator (at a minimum type 4) shall be placed inside each package, container, or bundle that is undergoing sterilization.
- If a failed Chemical Indicator is found, the contents of the package are reprocessed before use. A device is not used if any of the monitoring parameters suggest inadequate processing.

The following requirements apply to **biological monitoring**:

- A Biological Indicator (BI) shall be used to test the sterilizer each day that it is used and with each type of cycle that is used that day.
- A Biological Indicator shall be included in every load containing implantable devices.
- Run a Biological Control test each day routine BIs are incubated. If testing more than one cycle type, as long as BIs are all from the same lot number, only one Control needs to be run for that day.
- Items in the processed load should not be released until the results of the BI test are available (see manufacturer's leaflet; most are 24 hours for steam sterilization, 48 hours for ethylene oxide); if quarantine pending BI results is not possible, evaluation of a type 5 or 6 Chemical Indicator and the specific cycle physical parameters may be used to justify the release of routine loads.
- Implantable devices shall be quarantined until the results of the BI test are available.
- If a failed Biological Indicator is found, the contents of the autoclave batch shall be reprocessed before use and autoclave inspection and servicing shall be required.
- Contingency plans (i.e., Recall Policy and Procedure) must be in place in the event of reprocessing failures.

When do I use a Biological Control?

Example: At the start of the day with the first load run in each autoclave, you run a load of 'pouches' instruments on 'pouches' setting, you include a Biological Indicator. The BI is placed in a pouch as it needs to be put in the same packaging as the instruments that are being sterilized. This Biological Indicator is incubated with a Biological Control.

Later that same day, a load of wrapped instruments is run on 'wrapped' setting on the same autoclave. A Biological Indicator is included in a wrapped package. After the cycle is cooled off, the Biological Indicator is incubated, and can be checked against the Control from first load of the day, pending all indicators are from the same lot number.

Standard: *A Biological Indicator shall be used to test the sterilizer each day that it is used and with each type of cycle that is used that day. Run a Biological Control test each day routine BIs are incubated. If testing more than one cycle type, as long as BIs are all from the same lot number, only one Control needs to be run for that day.*

For Routine Procedure Instruments

When can I use my Sterilized Instruments?

A load of instruments is packed in pouches and is sterilized in the autoclave. Each pouch has a type 4 Chemical Indicator inside. Instruments cannot be used until the results of the Biological Indicator and Control are available (see Manufacturer's leaflet for Biological Indicators: most are 24 hours for steam sterilization).

A load of instruments is packed in pouches and is sterilized in the autoclave. Each pouch has a type 5 Chemical Indicator inside. Instruments can be used immediately as this can be justified as long as the type 5 indicator passes along with specific cycle physical parameters are met.

Records are kept to document that all sterilization parameters have been met (e.g., BIs, CIs, cycle time, temperature/ pressure readings). It is **NOT** necessary to physically "keep" the actual Chemical ~~Integrator~~ Indicator Strips or Biological Indicators (BI). Log records must be kept accessible on site for 1 year and on file 5 years. If an Off-Site Third Party Monitoring Agency is used for biological indicator testing, the record of the results should also be kept on file for the same period of time.

The following information must be recorded in the sterilization record log:

- load control label information (sterilizer number (if applicable), load number (if applicable) and date of sterilization)
- recording chart/printout of physical parameters (cycle time, temperature, pressure) of the sterilization cycle
- load contents
- Chemical Indicator monitoring results (internal and external)
- Biological Indicator monitoring results following cycle and at 24 hours (for steam sterilization)
- Biological Indicator Control test each day routine BIs are incubated
- person responsible for the sterilization cycle.

Storage of Sterile Medical Instruments/Devices

Steam-sterilized packs must be subject to a drying cycle prior to handling and storage. Wrapped packs must be carefully stored in a clean, dry, dust-free area (closed shelves), not at floor level, away from debris, drains, moisture, sinks and vermin to prevent contamination and maintain sterility until the time of use. All stored equipment and instruments must be left undisturbed as much as possible since handling may draw contaminants in through a wicking effect.

Upon opening the sterile instrument/device, check that the integrity of the packaging has not been compromised. If integrity of the packaging cannot be confirmed then instruments/device shall not be used and shall be sent for reprocessing.

Sterile items are to be stored in their sterile packaging until time of use.

Additional Resources

Refer to COCOO Standards of Practice, Safety and the Practice Environment for more information, *http://cocoo.on.ca/standards-of-practice/*.

Alerts and Recalls

The purpose of a recall is to retrieve any medical devices that have been found to be of insufficient quality for use in health care. A recall in a health care setting might be necessary due to medical devices that have been inadequately reprocessed or stored improperly, due to notification of an alert or recall from the manufacturer or recognized organizations and government agencies such as Health Canada, or due to other reasons.

If there is doubt about the safety of released medical devices, a recall shall be initiated. The recall shall include notification of patients and physicians as appropriate, according to the policy of the health care setting.

Reusable medical devices that have been recalled due to a reprocessing failure shall be reprocessed before use. Recalled medical devices that cannot be made safe for use by reprocessing (e.g., through manufacturer recall) shall not be used on patients. The health care setting shall have a policy for handling these devices.

A recall order shall:

1. be documented and retained according to the policy of the health care setting;
2. record the date and time that the reprocessing equipment was taken out of service and the actions taken (if applicable);
3. identify the medical devices to be recalled (e.g., through sterilization labels on packages, device model numbers);
4. identify the departments to which the recall order applies;
5. record the kind and quantity of the medical devices to be recalled; and
6. specify the action (e.g., destruction or return of the medical devices to the MDRD) to be taken by the person(s) receiving the order.

SURGICAL/INVASIVE PROCEDURES

Surgical Hand Preparation for Surgical Settings

Prior to a surgical procedure a surgical hand rub (using ABHR) or a surgical hand scrub (using an

antimicrobial soap) with persistent antimicrobial activity should be used. For surgical and invasive procedures, studies have shown that antimicrobial soap is more effective than plain soap and water. Antimicrobial soap has residual antimicrobial activity and is not affected by the presence of organic material.

Procedure for hand hygiene before office surgical procedures:

- Remove all jewellery;
- Clean hands up to a minimum of two inches above wrists thoroughly for the length of time recommended by the product manufacturer (usually two to five minutes);
- Clean under nails. A disposable manicure stick can be used; nailbrushes are NOT recommended as they can become contaminated and damage the skin around the nails;
- Nails should be short enough to allow thorough cleaning underneath and not cause glove tears; and
- If soap is used, rinse off and dry hands well.
- For Invasive Procedures: Operating Room personnel should adhere to a dress code consistent with the Operating Room Nurses Association of Canada standards.

Cleaning after Invasive/Surgical Procedures

The surgical suite can become heavily contaminated with microbes, becoming a risk for patients, unless it is properly cleaned and disinfected. The ultimate responsibility for ensuring a clean surgical environment rests with the employer/member.

Additional Resources

Refer to COCOO Standards of Practice, Osseous and Subcutaneous Surgery for more information, http://cocoo.on.ca/standards-of-practice/.

Environmental cleaning shall be performed by trained staff according to the protocol of the clinical office setting, which reflects ORNAC Standards (now under the auspices of the Canadian Standards Association).[40] A regular cleaning schedule shall be established, posted and documented.

Surgical suite are cleaned between cases, cleaning should include:
Any surface and equipment that comes in direct or indirect contact with the patient or body fluids is considered contaminated and shall be cleaned with a hospital-grade disinfectant.
Cleanup for surfaces and equipment shall proceed from the least contaminated to the most contaminated area.
After removal of trash, linen and instruments, the floor area to within a 1 to 1.5 metre (3 to 4 feet) perimeter around the operative area should be cleaned if visibly soiled. The area cleaned shall be extended as required to encompass visibly soiled areas.
Mop heads shall be changed after each use. If a bucket of hospital grade disinfectant solution is prepared for multiple uses, used mops shall not be reintroduced into the bucket.
Suction containers/liners should be disposable and wherever possible solidifiers should be used.
Containers shall be disposed of as per facility waste management policies.
Reusable suction containers should not be used. Suction tubing shall be disposable.

End of day (terminal) cleaning of each surgical suite, scrub area, corridor, furnishings and equipment includes

- lights and ceiling-mounted tracks
- door handles and push plates
- light switches and controls
- telephones and computer keyboards
- spot-checking walls for cleanliness
- the exterior surfaces of all machines and equipment (allow adequate drying time –according to manufacturer's instructions –before storage)
- all furniture, including wheels/casters
- all horizontal surfaces
- scrub sinks and surrounding walls
- floors should be mopped with a sufficient amount of disinfectant/ detergent to ensure that the floor remains wet for 5 minutes. Each floor shall be thoroughly cleaned using fresh solution and a fresh mop/mop head.
- floors should be power scrubbed at regular intervals according to established protocols.

Surgical Space

- Surfaces shall be smooth and durable enough to withstand cleaning and disinfection.
- The design shall ensure separate traffic flows for sterile and soiled materials and separate storage areas for supplies and equipment.
- Soiled and clean workrooms or holding rooms shall be separated.
- All reprocessing shall be done in a dedicated medical device reprocessingarea.
- Provision shall be made for adequate equipment storage.

ADMINISTRATIVE CONTROLS

Staff Immunization

To protect the health of patients and themselves, it is particularly important that staff be immune to measles, mumps, rubella, pertussis, varicella, hepatitis B and receive influenza vaccine annually. Staff should know their immunization status and have their immunizations up to date.

Additional Resources

Members are advised to consider following best practices related to immunizations according to current PHO recommendations.

Consult with local Public Health Unit, http://www.health.gov.on.ca/en/common/system/services/phu/locations.aspx.

Immunizations appropriate for health care providers include
Annual influenza vaccine
Measles, mumps, rubella (MMR) vaccine (two doses) or serologic documentation of immunity V
Varicella vaccine (two doses) or serologic documentation of immunity
Hepatitis B vaccine (complete series) and serologic confirmation of immunity for staff who may be exposed to blood, body fluids or contaminated sharps in their work
Tetanus vaccine (every 10 years)

Acellular pertussis vaccine (one dose Tdap).

All staff involved with foot care **should** be adequately immunized against hepatitis B (complete series). As the spread of hepatitis B in the healthcare setting is a serious concern, the value of hepatitis B immunization cannot be overstated. Appropriate immunization protects everyone.

Tuberculin Skin Test (TST)

A TST using the two-step skin test is recommended at the beginning of employment for all persons who work in the clinical office. A single-step TST is sufficient if:

- There is documentation of a prior two-step test, OR
- There is documentation of a negative TST within the last 12 months, OR
- There are two or more documented negative TST results at any time but the most recent was >12 months ago.

Persons who have had a positive TST, or who test positive with the two-step method, should have medical follow-up to rule out active disease.

Employee Exposure Protocol

A prompt and organized approach is required when staff are accidentally exposed to blood or body fluids through percutaneous (needle stick) or mucous membrane (splash) accidents. In particular, a decision will have to be made about the need to initiate post-exposure prophylaxis.

A significant exposure is one in which there is an exposure to blood or a body fluid capable of transmitting HBV, HCV and/or HIV through percutaneous injury from a contaminated needle or other sharp object (i.e., scalpel blade), a splash onto a mucous membrane, or non-intact skin, or a human bite that breaks the skin. See the following figure for steps to follow after a significant exposure to blood or body fluids, from *Infection Prevention and Control for Clinical Office Practice, April 2015.*

PROTOCOL FOLLOWING A SIGNIFICANT EXPOSURE TO BLOOD OR BODY FLUID

1. Provide Immediate First Aid

After a sharps injury, encourage bleeding, then wash the area thoroughly but gently with soap and warm water. Do not scrub. If blood or body fluid is splashed in the eyes, flush out the eyes well with cold water. If splashed in the mouth, flush mouth well with cold water.

2. Obtain Patient Consent for Testing

Obtain source patient consent for patient testing for blood-borne pathogens. Document the consent process in the chart.

3. Baseline and Follow-up Serology

The individual who has had a significant exposure to blood or body fluids will require baseline and follow-up serology to HBV, HCV, and HIV. This should be arranged in conjunction with an Infectious Diseases specialist or upon the advice of public health.

4. Document the Incident

If the clinical office is registered with the Workplace Safety and Insurance Board, then the report form shall be completed within three working days. Record the date and time of the incident, what the worker was doing, what protective measures were being employed at the time, and what action was taken after exposure.

5. Provide HIV Prophylaxis as Indicated

The risk of transmission following percutaneous exposure to a known HIV-infected patient is approximately 0.3 per cent. Post-exposure prophylaxis for HIV infection should be administered as soon as possible to those with significant exposures, preferably within one to two hours of exposure. Refer the exposed individual for assessment and management to an Infectious Diseases/HIV specialist, to the nearest emergency room.

PROTOCOL FOLLOWING A SIGNIFICANT EXPOSURE TO BLOOD OR BODY FLUID cont.

6. Provide Hepatitis B Prophylaxis as Indicated

The risk of acquiring hepatitis B infection after percutaneous exposure can be as high as 25%, depending on the infectious status of the source case. Ideally, all health care workers will have been immunized and proven immune, post-immunization. However, for situations where such is not the case, hepatitis B prophylaxis should be initiated as soon as possible after the incident, and depends on the following variables: serological status of the staff member (e.g., anti-HBs level) and HBsAg status of the source.

- **Refer to the National Advisory Committee on Immunization's Canadian Immunization Guide55 for more information and algorithms for determining post-exposure prophylaxis: www.phac- aspc.gc.ca/publicat/cig-gci/p04-hepb-eng.php.**

7. Hepatitis C

The risk of transmission following percutaneous exposure is about 2%. Exposed health care workers should be monitored for acquisition of hepatitis C. If infection is acquired, an Infectious Diseases specialist or hepatologist should be consulted regarding treatment. There is no post-exposure prophylaxis; immunoglobulin is of no proven efficacy.

https://www.publichealthontario.ca/en/eRepository/IPAC_Clinical_Office_Practice_2013.pdf from Infection Prevention and Control Clinical Office Practice April 2015 page 63.

CONCLUSION

The College of Chiropodists of Ontario has broadened its IPAC Standards of Practice to reflect current knowledge of infection transmission and disease. These are based on the most up-to-date IPAC best practices. Within the context of a constantly evolving information base, members are encouraged to continually evaluate and review their IPAC strategies and practices. In this way, the profession can ensure that a safe environment and IPAC practices are provided to all.

GLOSSARY

Additional Precautions (AP): Precautions (i.e., Contact Precautions, Droplet Precautions, Airborne Precautions) that are necessary in addition to Routine Practices for certain pathogens or clinical presentations. These precautions are based on the method of transmission (e.g., contact, droplet, airborne).

Administrative Controls: Measures put in place to reduce the risk of infection to staff or to patients (e.g., infection prevention and control policies/procedures, education/training).

Airborne Precautions: Used in addition to Routine Practices for patients known or suspected of having an illness transmitted by the airborne route (i.e., by small droplet nuclei that remain suspended in the air and may be inhaled by others).

Alcohol-based Hand Rub (ABHR): A liquid, gel or foam formulation of alcohol (e.g., ethanol, isopropanol) which is used to reduce the number of microorganisms on hands in clinical situations 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.

Antiseptic: An agent that can kill microorganisms and is applied to living tissue and skin.

Barriers: Equipment or objects used to prevent exposure of skin, mucous membranes or clothing of staff to splashes or sprays of potentially infectious materials.

Biological Indicator (BI): A test system containing viable microorganisms (e.g., spore-laden strips or vials) providing a defined resistance to a specified sterilization process. The sterilizer manufacturer will determine which BI is appropriate for the specific sterilizer. BIs shall be used according to the manufacturer's instructions and records kept of the test results. A BI shall be used to test the sterilizer each day that it is used. If BI indicates that sterilization has not been achieved, sterility of the instrument(s) cannot be assured. A process shall be in place in the event of a BI failure.

Biomedical Waste: Contaminated, infectious waste from a clinical office setting that requires treatment prior to disposal in landfill sites or sanitary sewer systems. Biomedical waste includes human anatomical waste; human and animal cultures or specimens (excluding urine and faeces); human liquid blood and blood products; items contaminated with blood or blood products that would release liquid or semi-liquid blood if compressed; body fluids visibly contaminated with blood; body fluids removed in the course of surgery, treatment or for diagnosis (excluding urine and faeces); sharps; and broken glass which has come into contact with blood or body fluid.[43,52]

Chemical Indicator (CI): A system that responds to a change in one or more predefined process variables during the sterilization process with a chemical or physical change. Chemical indicators do not necessarily indicate that a device is sterile but do indicate that the package has been processed through a sterilization cycle. External chemical indicators are useful for distinguishing between processed and

unprocessed items (e.g., tape that changes colour) and shall be applied to each package to be sterilized. An internal chemical indicator shall be placed inside each package that is undergoing sterilization.

There are several classes of CIs:

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. Class 1 CIs are usually applied to or visible on the outside of packages (e.g. sterilization tape or packaging printed with colour-changing inks). Class 1 CIs are directly exposed to the sterilization environment, so they usually fail only when there is a gross malfunction of the sterilizer.

Specialty indicator (Type 2): An indicator that is designed for use in specific test procedures in special sterilizers (e.g. dynamic air-removal sterilizers). Examples of Type 2 CIs include Bowie Dick and Dart products, which are used for steam sterilizers.

Single-parameter indicator (Type 3): An internal indicator that responds to only one critical parameter of the sterilization process, usually time or temperature. It is important to note that the sterilization process has more than one critical parameter, all of them must be reached for sterilization to occur.

Multi-parameter indicator (Type 4): An internal indicator that responds to two or more critical parameters of the sterilization process.

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).

Cleaning: The physical removal of foreign material (e.g., dust, soil) and organic material (e.g., blood, secretions, excretions, microorganisms). Cleaning physically removes rather than kills microorganisms. It is accomplished with water, detergents and mechanical action.

Contact Precautions: Used in addition to Routine Practices to reduce the risk of transmitting infectious agents via contact with an infectious person.

Contamination: The presence of an infectious agent on hands or on a surface such as clothes, gowns, gloves, bedding, toys, surgical instruments, patient care equipment, dressings or other inanimate objects.

Decontamination: A process of cleaning, followed by inactivation of pathogenic micro-organisms from objects to render them safe to handle.

Detergent: A synthetic cleansing agent that can emulsify oil and suspend soil. A detergent contains surfactants that do not precipitate in hard water and may also contain protease enzymes (see *Enzymatic Cleaner*) and whitening agents.

Direct Care: Providing hands-on care (e.g., bathing, washing, turning patient, changing clothes, continence care, dressing changes, care of open wounds/lesions, toileting).

Disinfectant: A product that is used on surfaces or medical equipment/devices which results in disinfection of the surface or equipment/device. Disinfectants are applied only to inanimate objects. Some products combine a cleaner with a disinfectant.

Disinfection: The inactivation of disease-producing microorganisms. Disinfection does not destroy bacterial spores. Medical equipment/devices must be cleaned thoroughly before effective disinfection can take place. See also, *Disinfectant*.

Droplet Precautions: Used in addition to Routine Practices for patients known or suspected of having an infection that can be transmitted by large infectious droplets.

Drug Identification Number (DIN): In Canada, disinfectants are regulated as drugs under the *Food and Drugs Act* and Regulations. Disinfectant manufacturers must obtain a drug identification number (DIN) from Health Canada prior to marketing, which ensures that labelling and supporting data have been provided and that it has undergone and passed a review of its formulation, labelling and instructions for use.

Environment of the Patient: The immediate space around a patient that may be touched by the patient and may also be touched by the health care provider when providing care. The patient environment includes equipment, medical devices, furniture (e.g., bed, chair), telephone, and the bathroom that the patient uses.

Enzymatic Cleaner: A pre-cleaning agent that contains protease enzymes that break down proteins such as blood, body fluids, secretions and excretions from surfaces and equipment. Most enzymatic cleaners also contain a detergent. Enzymatic cleaners are used to loosen and dissolve organic substances prior to cleaning.

Eye Protection: A device that covers the eyes and is used by health care providers to protect the eyes when it is anticipated that a procedure or care activity is likely to generate splashes or sprays of blood, body fluids, secretions or excretions, or within two metres of a coughing patient. Eye protection includes safety glasses, safety goggles, face shields and visors.

Facial Protection: Personal protective equipment that protect the mucous membranes of the eyes, nose and mouth from splashes or sprays of blood, body fluids, secretions or excretions. Facial protection may include a mask or respirator in conjunction with eye protection, or a face shield that covers eyes, nose and mouth.

FDA-Approved 3rd Party Reprocessor: An establishment (outside of a health care facility) that reprocesses single- use medical devices according to guidelines established by the U.S. Food and Drug Administration. There are currently no approved 3rd party reprocessors in Canada.

Fit-Check: See *Seal-Check*

Fit-Test: A qualitative or quantitative method to evaluate the fit of a specific make, model and size of respirator on an individual. Fit-testing shall be done periodically, at least every two years and whenever there is a change in respirator face piece or the user's physical condition which could affect the respirator fit.

Gloves (Non-Sterile Examination): non-sterile gloves with limited sizing and sold in bulk packages to be used for routine procedures. Important to use non-sterile examination gloves of good quality and adequate size for routine use. Synthetic gloves (e.g., nitrile, neoprene) for procedures that require tactile sensation.

Gloves (Sterile Procedure): sterile gloves that are sized, packaged and sold in pairs to be used for all types of procedures except surgery. These gloves are just as safe as surgeon's gloves and less expensive. Use sterile procedure gloves for aseptic procedures

Hand Hygiene: A general term referring to any action of hand cleaning. Hand hygiene relates to the removal of visible soil and removal or killing of transient microorganisms from the hands. Hand hygiene may be accomplished using soap and running water or an alcohol-based hand rub (ABHR). Hand hygiene includes surgical hand antisepsis.

Hand Washing: The physical removal of microorganisms from the hands using soap (plain or antimicrobial) and running water.

Hospital-Grade Disinfectant: A low-level disinfectant that has a drug identification number (DIN) from Health Canada indicating its approval for use in Canadian hospitals.

Infection: The entry and multiplication of an infectious agent in the tissues of the host. Asymptomatic or sub-clinical infection is an infectious process running a course similar to that of clinical disease but below the threshold of clinical symptoms. Symptomatic or clinical infection is one resulting in clinical signs and symptoms (disease).

Infection Prevention and Control (IPAC): Evidence-based practices and procedures that, when applied consistently in clinical office settings, can prevent or reduce the risk of infection in patients, health care providers and visitors.

Invasive Surgery/Procedure: any surgical procedure that is performed below the dermis.

Low-Level Disinfectant: A chemical agent that achieves low-level disinfection when applied to surfaces or items in the environment.

Low-Level Disinfection (LLD): Level of disinfection required when processing non-invasive medical equipment (i.e., non-critical equipment) and some environmental surfaces. Equipment and surfaces must be thoroughly cleaned prior to low-level disinfection.

Manufacturer: Any person, partnership or incorporated association that manufactures and sells medical equipment/devices under its own name or under a trade mark, design, trade name or other name or mark owned or controlled by it.

Mask: A device that covers the nose and mouth, is secured in the back and is used by health care providers to protect the mucous membranes of the nose and mouth.

Material Safety Data Sheet (MSDS): A document that contains information on the potential hazards (health, fire, reactivity and environmental) and how to work safely with a chemical product. It also

contains information on the use, storage, handling and emergency procedures all related to the hazards of the material. MSDSs are prepared by the supplier or manufacturer of the material.

May: indicates an advisory or optional statement.

Medical Equipment/Device: Any instrument, apparatus, appliance, material, or other article, whether used alone or in combination, intended by the manufacturer to be used for human beings for the purpose of diagnosis, prevention, monitoring, treatment or alleviation of disease, injury or handicap; investigation, replacement, or modification of the anatomy or of a physiological process; or control of conception.

Must: indicates best practice (the minimum standard based on current recommendations in the medical literature).

N95 Respirator: A personal protective device that is worn on the face and covers the nose and mouth to reduce the wearer's risk of inhaling airborne particles. A NIOSH-certified N95 respirator filters particles one micron in size, has 95 per cent filter efficiency and provides a tight facial seal with less than 10 per cent leak.

Noncritical Medical Equipment/Device: Equipment/device that either touches only intact skin (but not mucous membranes) or does not directly touch the patient. Reprocessing of noncritical equipment/devices involves cleaning and may also require low-level disinfection (e.g., blood pressure cuffs, stethoscopes).

Personal Protective Equipment (PPE): Clothing or equipment worn by staff for protection against hazards.

Physical Indicator: A mechanical method of monitoring time, temperature and pressure of a sterilizer that is generally built into the sterilizer.

Point-of-Care: The place where three elements occur together: the patient, the health care provider and care or treatment involving patient contact.

Provincial Infectious Diseases Advisory Committee (PIDAC): A multidisciplinary scientific advisory body that provides to the Chief Medical Officer of Health evidence-based advice regarding multiple aspects of infectious disease identification, prevention and control. More information is available at: *www.publichealthontario.ca/en/BrowseByTopic/InfectiousDiseases/PIDAC/Pages/PIDAC.aspx*.

Public Health Ontario (PHO): Public Health Ontario is the operating name for OAHPP. The PHO website is located at: *www.publichealthontario.ca*.

Reprocessing: The steps performed to prepare reusable medical equipment for use (e.g., cleaning, disinfection, sterilization).

Respirator: See *N95 respirator*

Respiratory Etiquette: Personal practices that help prevent the spread of bacteria and viruses that cause acute respiratory infections (e.g., covering the mouth when coughing, care when disposing of tissues).

Reusable device: A device that has been designed by the manufacturer, through the selection of materials and/or components, to be reused.

Risk Assessment: An evaluation of the interaction of the health care provider, the patient and the patient environment to assess and analyze the potential for exposure to infectious disease.

Routine Practices (RP): The system of IPAC practices to be used with all patients during all care to prevent and control transmission of microorganisms in all clinical office settings. For a full description of Routine Practices, refer to PIDAC's *Routine Practices and Additional Precautions for all Health Care Settings.*[5]

Routine Procedures: the cutting, drilling and filing of nails; the reduction of corns and calluses

Safety-engineered Medical Device: A non-needle sharp or a needle device used for withdrawing body fluids, accessing a vein or artery, or administering medications or other fluids, with a built-in safety feature or mechanism that effectively reduces exposure incident risk. Safety-engineered devices shall be licensed by Health Canada.

Seal-Check: A procedure that the health care provider must perform each time an N95 respirator is worn to ensure it fits the wearer's face correctly to provide adequate respiratory protection. The health care provider shall receive training on how to perform a seal-check correctly.

Shall: indicates mandatory requirements based on legislated requirements or national standards (e.g., Canadian Standards Association – CSA).

Should: indicates a recommendation which is advised but not mandatory.

Sharps: Objects capable of causing punctures or cuts (e.g., needles, lancets, sutures, blades, clinical glass).

Single-Use/Disposable Device: A device that has been designed by the manufacturer for single-use only.

Staff: Anyone conducting activities in settings where health care is provided, including but not limited to, health care providers.

Sterilization: A validated process that kills all pathogenic micro-organisms, including bacteria, fungi, viruses and spores.

Surgical Hand Antisepsis: The preparation of hands for surgery, using either antimicrobial soap and water or an alcohol-based hand rub, preferably with sustained antimicrobial activity.

Surgical Hand Rub: Surgical hand preparation with an alcohol-based hand rub that has sustained antimicrobial activity.

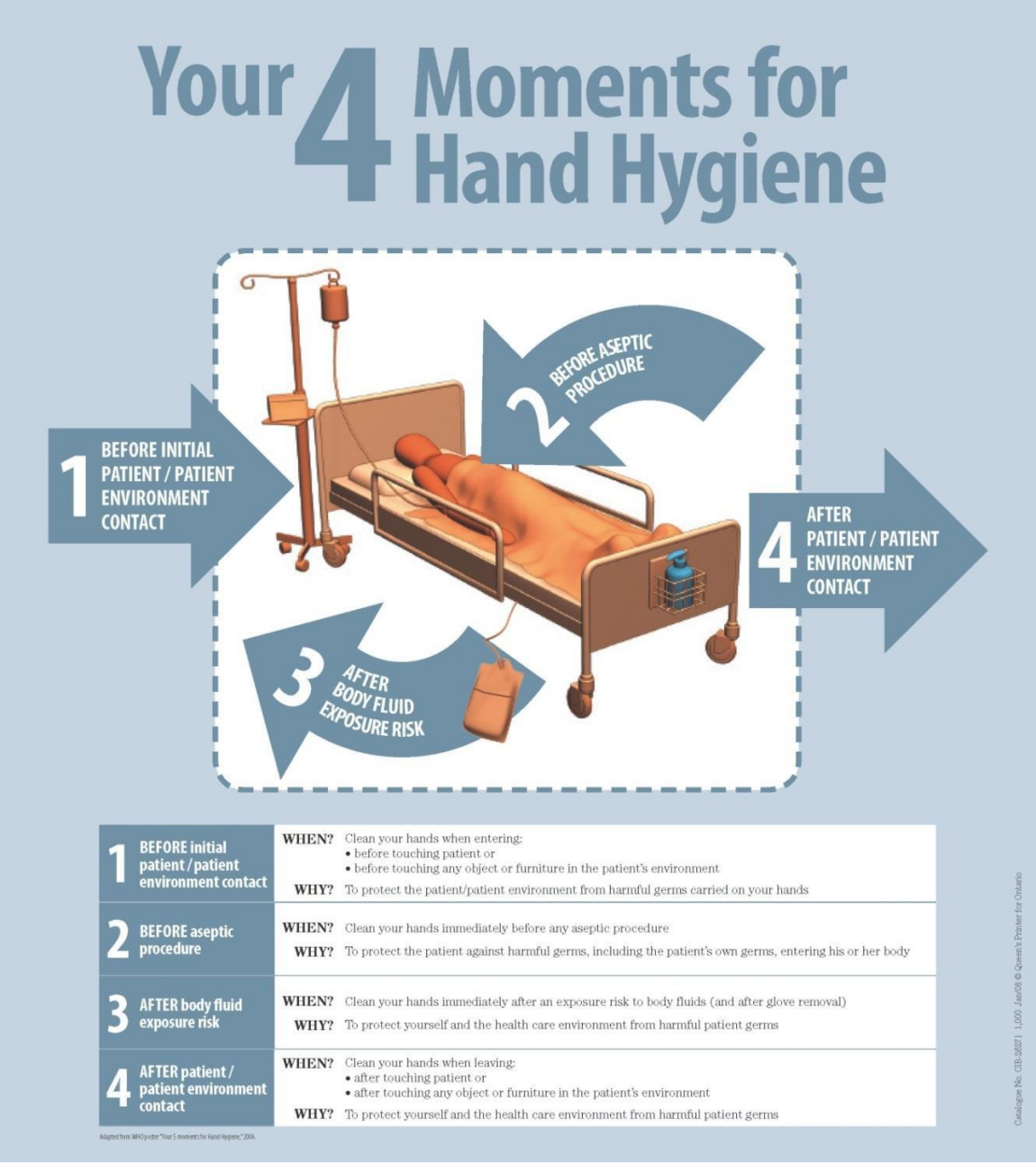
Surgical Hand Scrub: Surgical hand preparation with antimicrobial soap that has sustained antimicrobial activity and water.

Towel: disposable or reusable

Ultrasonic Cleaner: A machine that cleans patient care items by the cavitations produced by ultrasound waves.

APPENDIX A: Ontario's Just Clean Your Hands Program: *Your 4 Moments for Hand Hygiene*

Reproduced with permission from *Just Clean Your Hands*, Ontario's evidence-based hand hygiene program. Available at: *www.publichealthontario.ca/en/BrowseByTopic/InfectiousDiseases/JustCleanYourHands/Pages/Just-Clean-Your- Hands.aspx*.



APPENDIX B: Examples of Additional Precautions

Reproduced with permission from, *Infection Prevention and Control for Clinical Office Practice April 2015.*

CONTACT PRECAUTIONS	DROPLET PRECAUTIONS	AIRBORNE PRECAUTIONS
For patients with: □ Antibiotic-resistant organisms (e.g., MRSA infection) □ Acute vomiting and/or diarrhea □ Uncontained drainage □ Conjunctivitis	For patients with: □ Pertussis □ Mumps □ Rubella □ Meningitis, etiology unknown or meningococcal Droplet + Contact Precautions for patients with: □ Acute Respiratory Infection (e.g., croup, RSV, common cold, influenza, bronchiolitis, pneumonia, acute exacerbation of asthma)	For patients with: □ Pulmonary tuberculosis □ Measles □ Chickenpox
▼	▼	▼
Patient Identification and Management □ Identify at triage □ Separate symptomatic patients from other patients in waiting room or triage into a single room	Patient Identification and Management □ Identify at triage □ Surgical mask for patient □ Triage into single room □ Respiratory etiquette □ Post alert at entrance to room, if available	Patient Identification and Management □ Identify at triage □ Surgical mask for patient □ Triage into single room with door (closed) – open window in room, if applicable □ Place alert at entrance to room, if available
▼	▼	▼
HCW Response □ Hand hygiene □ Gloves for any contact □ Gown, if soiling is likely □ Clean and disinfect equipment and surfaces that the patient contacted with a low-level disinfectant after patient leaves	HCW Response □ Hand hygiene □ Surgical face mask and eye protection for any contact □ Clean and disinfect equipment and surfaces that the patient contacted with a low-level disinfectant after patient leaves	HCW Response □ Hand hygiene □ N95 respirator if patient is suspected or confirmed pulmonary tuberculosis □ Respirator not required for chickenpox/measles if HCW is immune. Only immune staff to provide care

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