



Community of Practice:

Reprocessing

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Let's think!

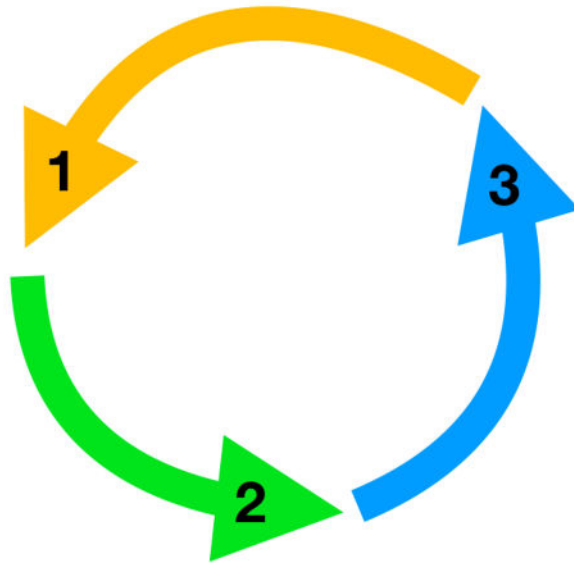
For the purpose of this session, we would like you to think about **any activity that occurs in your setting** that might involve internal staff or external providers, delivering care **that utilizes equipment that is NOT single use.**



What is reprocessing?

The steps performed to prepare used equipment/tool/device for reuse.

There are many steps involved, and each step must be completed before the next, to ensure the process is effective.



Why is reprocessing of equipment necessary?

Assists with preventing the transmission of infection to healthcare providers and residents/clients/patients.

After the equipment/tool/device is used, infectious agents can be transmitted from one residents/clients/patient to another via the equipment if it is not reprocessed.



What kind of items require reprocessing?

A Medical Device/Equipment is “any instrument, apparatus, appliance, material, or another article, intended by the manufacturer to be used for human beings in the delivery of care. (PIDAC 2013)

- For items that are NOT single use
- That will be used again in the future (on the same person or a new person)
- For items that are appropriate for reprocessing (according to manufacturer's guidelines and intended use)




Single Use vs. Reusable

Reusable

- withstands cleaning, disinfection and/or sterilization process
- must be reprocessed to be safe for reuse on another person

Reusable  Reprocess

Single Use

- must be discarded after use
- can be dedicated to a client
- is identified by a symbol 

Single use  Discard



What is reprocessing of equipment?

Reprocessing prepares used equipment/tool/device to be safe for re-use on another person.

Reprocessing is the:

1. Cleaning
2. Disinfection and (sometimes)
3. Sterilization

of reusable equipment/tool/device in health care and personal service settings. Following reprocessing guidelines and proper procedures reduces the spread of infection through reusable equipment and devices.

Cleaning

Physically removing debris with a cleaning agent (soap and water, enzymatic cleaner)

Disinfection

Kills viruses and bacteria we cannot see with our eyes

Sterilization

Destroys all microorganisms on a surface.

Spaulding Criteria

Spaulding's classification system divides reusable equipment/tool/device according to their intended use and the potential risk of infection involved in the use of the equipment/tool/device.

Classification	Definition	Level of Processing/ Reprocessing	Examples
CRITICAL Equipment/Device	Equipment/device that enters sterile tissues, including the vascular system	<ul style="list-style-type: none"> Cleaning followed by Sterilization 	<ul style="list-style-type: none"> Surgical instruments Implants Biopsy instruments Foot care equipment Eye and dental equipment
SEMICRITICAL Equipment/Device	Equipment/device that comes in contact with non-intact skin or mucous membranes but does not penetrate them	<ul style="list-style-type: none"> Cleaning followed by High- Level Disinfection (as a minimum) Sterilization is preferred 	<ul style="list-style-type: none"> Respiratory therapy equipment Anaesthesia equipment Tonometer
NONCRITICAL Equipment/Device	Equipment/device that touches only intact skin and not mucous membranes, or does not directly touch the client/patient/resident	<ul style="list-style-type: none"> Cleaning followed by Low- Level Disinfection (in some cases, cleaning alone is acceptable) 	<ul style="list-style-type: none"> ECG machines Oximeters Bedpans, urinals, commodes

Reprocessing Decision Chart

Level of Processing and Reprocessing	Classification of Equipment/ Device	Examples of Equipment/Devices	Effective Products**
Cleaning	All reusable equipment/ devices	<ul style="list-style-type: none"> - All reusable equipment/devices 	<ul style="list-style-type: none"> - Quaternary ammonium compounds (QUATs) - Enzymatic cleaners - Soap and water
Low Level Disinfection	Noncritical equipment/ devices	<ul style="list-style-type: none"> - Bedpans, urinals, commodes - Stethoscopes - Blood pressure cuffs 	<ul style="list-style-type: none"> - 3% Hydrogen peroxide (30 minutes) - 60-95% Alcohol (10 minutes) - Sodium hypochlorite
High Level Disinfection	Semi-critical equipment/ devices	<ul style="list-style-type: none"> - Respiratory therapy equipment - Fingernail care equipment used on multiple residents 	<ul style="list-style-type: none"> - \geq 6% Hydrogen peroxide (30 minutes)
Sterilization	Critical equipment/ devices	<ul style="list-style-type: none"> - Surgical instruments - Foot care equipment 	<ul style="list-style-type: none"> - Steam autoclave

Resident/Client/Patient Safety

Clients and providers can be put at risk of acquiring infections such as:

- Bacterial pathogens
 - MRSA
- Viral Blood borne pathogens
 - Hepatitis B
 - Hepatitis C
 - Human Immunodeficiency Virus (HIV)
- Bacteria and Fungi

How can infections be spread?

- penetrating skin accidentally
- sharp instrumentation contaminated with blood/body fluids during care and used on clients without proper reprocessing
- organisms moved from client to client through contaminated devices
- weeping areas or non intact skin (e.g., hands of provider)



Hepatitis B (HBV) and Hepatitis C (HCV) Outbreaks associated with foot care reported



Nursing home: 7 infected

7 infected of which sequencing of DNA from 4 acute infections matched into a cluster with one chronic case. Sequencing could not be performed for 3 cases.

Infection control breaches related to instrument sterilization during the provision of podiatry care were identified; however, evidence was insufficient to implicate a specific source of transmission.

Reference:

[Centers for Disease Control and Prevention. Healthcare-Associated Hepatitis B and C Outbreaks Reported to Centres for Disease Control and Prevention \(CDC\) 2008-2017; 2018; August 21.](#)



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Pop Quiz!



Q: A external provider is coming on Friday to provide foot care to 6 residents supported in your facility. What kind of reprocessing would we expect the tools used in the foot care to have gone through?

- a) Low level disinfection
- b) High level disinfection
- c) Sterilization

Q: You provide care to residents in your facility that involves shaving facial hair. What kind of reprocessing would we expect the tools used for shaving to have gone through?

- a) Low level disinfection, because they contact intact skin only
- b) The items used would be single use, and therefore are discarded and not require reprocessing
- c) Sterilization



Best Practices

- Providing Products for Disinfection or Sterilization Processes
- Environmental Requirements for Reprocessing Areas
- Policies and Procedures
- Education and Training
- Occupational Health and Safety for Reprocessing
- Transporting and Handling of Contaminated Equipment
- Selection of Product and Level for Reprocessing
- Factors Affecting the Efficacy of the Reprocessing Procedure
- Disassembly, Inspection and Cleaning of Reusable Equipment
- Disinfection of Reusable Medical Equipment
- Sterilization of Reusable Medical Equipment
- Continued Monitoring of System Failures
- Storage and Use of Reprocessed Equipment



If you reprocess things internally:

1. Ensure Best Practices are followed
2. Maintain log records from reprocessing activities
3. Audit the reprocessing process on a routine basis
4. Report IPAC lapses to Public Health

Appendix D: Sample Audit Checklist for Reprocessing of Medical Equipment/Devices

NOTE: This sample checklist is provided to assist health care settings in developing their own audit tools.

Purpose:
All medical equipment/devices used in health care settings in Ontario are to be reprocessed in accordance with both the Ministry of Health and Long Term Care's "Best Practices for Cleaning, Disinfection and Sterilization in All Health Care Settings", Public Health Agency of Canada infection control guidelines and current CSA standards. Audits should be carried out on a regular basis (e.g., annually).

Responsibility:
Each physician Program Head and/or department manager is responsible to verify that all medical equipment/devices reprocessed in the area for which he/she is responsible are being reprocessed according to the MOHLTC's "Best Practices for Cleaning, Disinfection and Sterilization in All Health Care Settings". Audit results should be reviewed by the sterile processing department and the reprocessing committee.

Department/Area to be Audited: _____

Item	Yes	No	Partial	Comments
Reprocessing occurs in the area (if no - sign off, checklist is complete)				
Single-use medical equipment/devices are not reprocessed				
CLEANING				
Equipment/devices are cleaned using an enzymatic cleaner prior to reprocessing				
Cleaning is done in a separate area from where the instrument will be used (i.e., designated dirty area)				
Personal protective equipment is worn for cleaning and decontamination (eye protection, mask, gown and gloves)				
HIGH-LEVEL DISINFECTION				
Equipment/devices are subjected to high-level disinfection according to manufacturer's instructions, using an approved high-level disinfectant				
High-level disinfectant concentration is checked daily				
High-level disinfectant is not kept for more than 2 weeks, even if test strips indicate concentration is effective				
Quality Control on test strips is carried out as per manufacturer's instructions				
Test strip bottle is dated when opened				
Test strips are not used past the manufacturer's expiry date				

[Appendix D provides a sample audit checklist](#)



If the service providers reprocess items externally:

1. Ensure that reprocessing of equipment occurs and have confirmation of the process provided to you.
2. Occasionally audit the service providers to validate that items are visibility clean, have appropriate indicators present, or are otherwise fit for use.
3. Ensure the service provider has completed appropriate training to conduct the duty they are present on site to provide.



Questions?



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