



Policy & Procedure

Policy Title:	Cleaning and Disinfection of Non-Critical Reusable Patient Care Equipment	
Applies To:	All Team Members working in clinical areas	
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PURPOSE

This policy provides direction to Nova Scotia Health Team Members for the Cleaning and Disinfection of non-critical reusable Patient Care Equipment/Devices with the aim of maintaining a safe environment for patient care throughout the organization.

POLICY STATEMENTS

1. All Nova Scotia Health Team Members must follow the guidelines as outlined within this policy for the Cleaning and Disinfection of non-critical reusable Patient Care Equipment/Device.
2. All Cleaning and disinfecting activities must be done in a safe manner that limits transmission of potentially infectious organisms.
3. Nova Scotia Health Team Members must be aware of their responsibilities and the processes for cleaning, Disinfection, and storage of non-critical equipment in their area/department.

PRINCIPLES AND VALUES

- Through adequate Cleaning and Disinfection within our facilities, Nova Scotia Health is committed to maintaining a safe environment for Team Members, patients, and visitors.
- Cleaning and Disinfection at a high standard are important because equipment/devices used for patient care that may harbour microorganisms may cause infection if not properly cleaned after use.
- Nova Scotia Health is committed to providing the appropriate equipment and training to Team Members to ensure that all medical equipment is properly cleaned and disinfected to promote patient safety.

GUIDELINES

1. The level of Reprocessing of patient equipment/devices is based on [Spaulding's Classification](#) of non-critical, semi-critical, **and** critical devices.
 - 1.1. All reusable equipment requires Cleaning and Disinfection, but the level of Disinfection and the need for Sterilization depends on the use of the device and the risk of transmission of infection.
2. All activities included in the Cleaning and Disinfection of Patient Care Equipment/Devices are based on the consistent application of Routine Practices and hand hygiene (see [Related Policies](#)).
3. Non-critical Patient Care Equipment/Devices that are used on more than one patient (e.g., blood pressure cuffs, stethoscopes, digital thermometer housings, O2 saturation monitors, commodes, walkers, wheelchairs, stretchers, lifts, IV poles, etc.) require Cleaning and Disinfection between patients.
 - 3.1. Clean and disinfect using a Low Level cleaner/Disinfectant.

4. Dedicated re-usable equipment (used by **one** patient for their admission) is cleaned and disinfected daily, when soiled, and with the terminal clean upon patient discharge.
 - 4.1. Cleaning is required twice daily if the patient is on Contact Precautions.
5. The products used for Cleaning and Disinfection of non-critical reusable Patient Care Equipment must be compatible with the device composition.
 - 5.1. Consult with device/equipment manufacturer for Cleaning and Disinfection recommendations.
 - 5.2. Refer to [Appendix C](#) for a table of some common Disinfectants and their uses.

Note: The table is intended as a guide only. Always refer to the validated manufacturer's instructions for use. These instructions should explain how to clean the specific piece of equipment and indicate what products have been validated for use.

6. In areas where Cleaning and Disinfection of patient equipment occur (such as a soiled utility room), there should be:
 - 6.1. No eating or drinking, or storage of food
 - 6.2. No personal items
 - 6.3. A distinct separation of clean and dirty areas
 - 6.4. A decontamination sink
 - 6.5. A hand hygiene sink

PROTOCOL

1. Cleaning and Disinfection is a two-step process:
 - 1.1. Clean the item
 - 1.2. Disinfect the item

Note: Disinfection is not achieved without Cleaning the item first.

2. If using a ready-to-use wipe that has properties to clean and disinfect; use one wipe to clean, use second wipe for Disinfection stage.
 - 2.1. Allow item to remain wet for required Contact Time (should be specified in the product instructions or on label).
3. If using a solution to clean a non-critical piece of Patient Care Equipment (i.e., cleaning an automated blood pressure cuff that is soiled with blood), remove visible debris, allow to soak, rinse, and then disinfect as per manufacturer's instructions.
 - 3.1. Wear appropriate personal protective equipment (PPE)
 - 3.2. If necessary, soak equipment in water and detergent or enzymatic cleaner/Disinfectant to assist in removing organic materials (e.g., blood and

- tissue). Use mechanical action (such as brushing) to remove organic material from the item.
- 3.3. Rinse after Cleaning to remove soil and Cleaning agents and prevent chemical reaction with the Disinfectant.
 - 3.4. If further Disinfection is required, use Disinfectant solution following the manufacturer's specified Contact Time.
 - 3.5. Allow equipment to air dry prior to using equipment on another patient or storage of it to prevent microbial growth and ensure the effective Disinfection of equipment.
4. When using Disinfectants:
- 4.1. Consult the appropriate Workplace Hazardous Materials Information System (WHMIS) Safety Data Sheets (SDS)
 - 4.2. Wear the appropriate PPE
 - 4.3. Use only Disinfectants that have a Drug Identification Number (DIN) provided by Health Canada
 - 4.4. Read the product label and follow manufacturer's instructions for proper use including but not limited to:
 - 4.4.1. Dilution (if appropriate)
 - 4.4.2. Wet Contact Time
 - 4.4.3. Rinsing requirements (i.e., temperature of water)
 - 4.4.4. Expiry date (shelf life)
 - 4.4.5. Storage
 - 4.4.6. Concentration testing
 - 4.5. Use a measuring device to measure the Disinfectant and the water when dilution of Disinfectant is indicated.
 - 4.6. Do not 'top up' previously prepared solutions with fresh solution.
5. If using an auto-dilutor system:
- 5.1. Ensure that auto-dilutors are working properly.
 - 5.2. Perform required testing (i.e., dipstick) as per manufacturer's recommendations.
 - 5.3. If in doubt that the concentration is incorrect or the diluter is not working properly, notify the immediate supervisor who will arrange for servicing of the device.
 - 5.4. Measure Disinfectant and water with a measuring device until the auto-dilutor is repaired.
6. High Level Disinfection and Sterilization are Reprocessing methods required for specific items (semi-critical and critical) depending on [Spaulding Classification](#).

- 6.1. Many items will need to be sent to Medical Device Reprocessing (MDR)/Sterile Processing Departments (SPD) for further Reprocessing measures.

Note: See [Related Documents](#) for additional polices relating to Reprocessing of medical devices.

REFERENCES

Canadian Standards Association (2008). Decontamination of reusable medical devices, Z314.8-08, Clause 8.

Provincial Infectious Disease Advisory Committee (PIDAC). (Revised April 2018). Best Practices for Environmental Cleaning for Prevention and Control of Infections, 2nd edition. Retrieved August 2021: <https://www.publichealthontario.ca/-/media/documents/B/2018/bp-environmental-cleaning.pdf>

Provincial Infectious Disease Advisory Committee (PIDAC). (Revised 2013). Best Practices for Cleaning, Disinfection and Sterilization of Medical Equipment/Devices in All Health Care Settings, 3rd edition. Retrieved August 2021. <https://www.publichealthontario.ca/-/media/documents/B/2013/bp-cleaning-disinfection-sterilization-hcs.pdf>

RELATED DOCUMENTS

Policies

[Cleaning & Disinfecting the Physical Environment Policy ENV-CD-001](#)

[Hand Hygiene - Policy and Procedure - NSHA IPC-RP-020](#)

[Routine Practices and Precautions - Policy - NSHA IPC-RP-001](#)

[Routine Practices - Policy - NSHA IPC-RP-005](#)

[Reprocessing and Reuse of Single Use Medical Devices - Policy and Procedure - NSHA MDR-ES-010](#)

[CEHHA 413-006 Multi-Use Equipment and Accessories](#)

[SSDHA IC-210-006 Reprocessing of Patient Care Equipment](#)

[Manufacturer's Instructions for Use \(MIFU\) for Reprocessed Items and Equipment - Policy and Procedure - NSHA MDR-GA-010](#)

Forms

Central Zone

Reprocessing Committee- Request for Consultation (to be completed when purchasing new equipment). *On-line form may be accessed through Central Zone Intranet.*

Appendices

[Appendix A: Definitions](#)

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[Appendix B: Spaulding Classification](#)

[Appendix C: Common Disinfectants](#)

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Appendix A: Definitions

Antiseptic	An antimicrobial chemical designed for use on the skin or mucous membranes that inhibits the growth and reproduction of microorganisms such as Alcohol Based Hand Rub (ABHR) for hand hygiene.
Cleaning	The physical removal of all foreign material (dust, soil) and organic material (e.g., blood, secretions, excretions, and organisms). Cleaning removes rather than kills organisms. It is accomplished with water, detergents, and mechanical action.
Contact Time	The time stated on the Disinfectant's label for which the surfaces of equipment/devices must remain wet to be effective to disinfect the device.
Disinfectant	A product that is used on medical equipment/devices, which results in Disinfection of the equipment/device. Disinfectants are applied only to inanimate objects. Some products combine a cleaner with a Disinfectant.
Disinfection	A process that kills most disease-producing organisms; Disinfection does not kill/destroy bacterial spores. Disinfection can be a chemical or physical treatment. Chemical Disinfectants include Low, Intermediate, and High Level Disinfectants. Pasteurization and ultraviolet radiation are examples of physical methods.
Drug Identification Number (DIN)	An identification number that manufacturers must obtain from Health Canada prior marketing their product. This ensures that the labels and supporting data have been provided and it has passed formulation, labelling and instructions for use.
High Level Disinfection	The process of using a chemical to kill all vegetative "live" bacteria, fungi, mycobacteria, and viruses. This does not necessarily kill bacterial spores.
Intermediate Level Disinfection	Inactivates <i>M. tuberculosis</i> , vegetative bacteria, most viruses, and most fungi, but does not necessarily kill bacterial spores.
Low Level Disinfection	Using a chemical to kill most vegetative "live" bacteria and some fungi as well as enveloped viruses. This does not kill mycobacteria or bacterial spores.
Patient Care 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 of a physiological process or control of conception (Public Health Agency of Ontario, May 2013).

Reprocessing	The steps performed to prepare re-useable medical equipment/devices for use (e.g., Cleaning, Disinfection, and Sterilization).
Team Member	Any employee, physician, volunteer, learner, board member, contractor, contract worker, franchise employee, foundation employee, and any other individual performing work activities within Nova Scotia Health.
Safety Data Sheet (SDS)	A document that contains information on the potential hazards (health, fire, reactivity, and environmental) and how to work safely with the chemical product.
Sterilization	The complete elimination or destruction of all forms of microbial life. Accomplished by either physical or chemical processes. Includes steam under pressure, hydrogen peroxide gas Sterilization, dry heat, and ethylene oxide.
WHMIS	Workplace Hazardous Material Information System is Canada's National Hazard Communication Standard. Key elements are cautionary labelling of containers of WHMIS's "controlled products", the provision of SDS and staff education and training programs

Appendix B: Spaulding Classification

Instruments and items for patient care have been divided into three categories based on the degree of risk of infection involved in the use of these items.

Classification	Definition	Level of Reprocessing	Examples
Critical Equipment/Device	Equipment/device that enters sterile tissues, including the vascular system	Cleaning followed by Sterilization	<ul style="list-style-type: none"> ○ Surgical instruments ○ Biopsy instruments ○ Foot care equipment ○ Implants ○ Eye and Dental Equipment
Semi-critical Equipment/Device	Equipment/device that comes in contact with non-intact skin or mucous membranes but do not penetrate them	Cleaning followed by High Level Disinfection (as a minimum) Sterilization is preferred	<ul style="list-style-type: none"> ○ Respiratory therapy equipment ○ Anaesthesia equipment ○ Tonometers
Non-critical Equipment/Device	Equipment/device that touches only intact skin and not mucous membranes, or does not directly touch the patient	Cleaning followed by Low Level Disinfection	<ul style="list-style-type: none"> ○ ECG machines ○ Oximeters ○ BP Cuffs ○ Stethoscopes ○ Thermometers ○ Mobility and Transfer Devices (walkers, stretchers, wheelchairs, lifts) ○ Commodes, bedpans, and urinals

Adapted from: Ministry of Health and Long-Term Care/Public Health division/provincial Infectious Diseases Advisory Committee (May 2013). Best Practices for Cleaning, Disinfection and Sterilization in all Health Care Settings.

Appendix C: Common Disinfectants

***Always refer to the manufacturer's instructions for use.**

This chart is intended to act as a guide only.

Name	Characteristics	Uses
Accelerated Hydrogen Peroxide (0.5%, 7% diluted 1:16)	Low Level Disinfectant. Available in a wipe or solution. Active in the presence of organic materials and has excellent Cleaning ability due to detergent properties.	External surfaces of equipment and surfaces.
4.5% Accelerated Hydrogen Peroxide Sporicidal Gel	Use as Low Level Disinfectant 4.5% Accelerated Hydrogen Peroxide Sporicidal Gel has the ability to kill bacterial spores such as <i>C. difficile</i> . Harmful to some surfaces with repeated uses.	Specific hard non-porous environmental surfaces such as toilets, sinks, basins and commodes (as per the manufacturer's instructions).
Alcohol (ethyl or isopropyl) (60-95%)	Low Level Disinfectant (some references cite Intermediate Level). Disinfection is achieved after 10 minutes of contact - evaporates quickly, so not a good surface Disinfectant. Items would need to be submersed. Flammable. Inexpensive. A poor cleaner inactivated by organic material. Harmful to some surfaces causes hardening and brittleness with repeated uses.	External surfaces of some equipment such as stethoscopes or rubber stoppers (multi-dose vials). Flushing lumens of certain endoscopes to enhance drying. Also used as a skin Antiseptic.
Chlorines - Sodium hypochlorite or bleach	Low/Intermediate Level Disinfectant based on dilution. Broad spectrum and effective against hepatitis viruses & HIV.	Blood spill cleanup. Inactivated by organic material: for blood spills, gross

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Name	Characteristics	Uses
	<p>Has activity against spores such as <i>C. difficile</i>.</p> <p>Inexpensive.</p> <p>Rapid action.</p> <p>Corrosive to metal.</p> <p>Instability: loses efficacy with time & exposure to light (mix fresh, store in a closed container, and use within 24 hrs).</p> <p>Use in well-ventilated areas.</p>	<p>blood must be cleaned up first.</p> <p>A 1:10 solution is usually recommended. 1 part bleach to 9 parts cold tap water.</p> <p>Disinfection of hydrotherapy tanks, equipment, toilets & commodes.</p> <p>Use to clean equipment and environments of patients having diarrhea.</p>
Hydrogen peroxide 3%	Low Level Disinfectant.	Used on non-critical equipment and surfaces usually in home health care.
Iodophors (non-Antiseptic formulations)	Low Level Disinfectant.	<p>Hydrotherapy tanks.</p> <p>Thermometers.</p> <p>Hard surfaces and equipment that do not touch mucous membranes.</p> <p>Do not use Antiseptic formulations for surface Disinfection.</p>
Phenolics	<p>Low Level Disinfectant (some sources cite Intermediate Level).</p> <p>May contain detergents to provide Cleaning and Disinfection.</p> <p>May be corrosive.</p> <p>Never use on isolettes or cribs.</p>	<p>Floors, walls, and furnishings.</p> <p>Hard surfaces and equipment that do not touch mucous membranes.</p> <p>Not to be used in nurseries or in food preparation areas.</p>

Name	Characteristics	Uses
		May be absorbed through skin or rubber.
Quaternary Ammonium Compounds (QUATS)	<p>Low Level Disinfectant.</p> <p>Very common in healthcare settings.</p> <p>Do not use QUATS to disinfect instruments.</p> <p>Good Cleaning abilities, many have detergents.</p>	<p>Floors, walls, and furnishings.</p> <p>Blood spills prior to Disinfection with bleach.</p> <p>May be neutralized by cotton materials (cloths). These materials absorb the active ingredients.</p>

Adapted from: Ministry of Health and Long-Term Care/Public Health division/provincial Infectious Diseases Advisory Committee (February, 2013). Best Practices for Cleaning, Disinfection and Sterilization in all Health Care Settings

VERSION HISTORY

Version:	Effective:	Approved by:	What's changed:
Original	2017-08-17	VP, Quality, System Performance and Transformation	N/A
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