

POLICY NUMBER:	IPC-126.000
ISSUING AUTHORITY:	Infection Prevention & Control

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SUBJECT: CLEANING AND DISINFECTION OF NON-CRITICAL, REUSABLE CLIENT CARE EQUIPMENT IN FACILITIES

BOARD POLICY REFERENCE:

Executive Limitation (EL-02) Treatment of Clients
Executive Limitation (EL-03) Treatment of Staff
Executive Limitation (EL-07) Asset Protection & Risk Management

POLICY:

The Spaulding classification system is used to classify and provide direction for the cleaning, disinfection and sterilization requirements for equipment used in all forms of client care. Medical devices, equipment and surgical devices are divided into categories based on the potential risk of infection with their use. These categories are non-critical, semi-critical and critical. There are standard methods of cleaning, disinfecting and sterilizing items in each of these categories. The Regional Health Authority – Central Manitoba Inc. (RHA Central) follows these standard methods as directed by Health Canada and the Canadian Standards Association (CSA) Standards. **This policy describes the process for cleaning and disinfection of non-critical re-usable client care equipment and environmental items ONLY.**

In accordance with existing infection control policies and procedures, RHA Central will implement and maintain processes to ensure all non-critical, reusable client care equipment is routinely cleaned, and disinfected where applicable, before and after reuse. Cleaning is a shared responsibility between Health Services and Support Services.

DEFINITIONS:

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).

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. ABHR's contain emollients to reduce skin irritation and are less time-consuming to use than washing with soap and water.

Antibiotic-Resistant Organism (ARO): A microorganism that has developed resistance to the action of several antimicrobial agents and that is of special clinical or epidemiological significance.

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

Approved Disinfectant: a disinfectant cleaner that has been approved by the RHA.

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

Critical Items: Objects that enter sterile tissue or the blood stream. Examples of critical items are dressing tray instruments and most items supplied by CSR.

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 and whitening agents.

Disinfectant: A product that is used on surfaces or 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 to inactivate disease producing microorganisms. Disinfection does not destroy high levels of bacterial spores. Medical equipment/devices must be cleaned thoroughly before effective disinfection can take place.

Enzymatic Cleaner: A pre-cleaning agent which 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.

High Touch Surfaces: High touch surfaces are those that have frequent contact with hands. Examples include, doorknobs, call bells, bedrails, light switches, wall areas around the toilet and edges of the privacy curtains.

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

Low-Level Disinfection: 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.

Non-Critical Items: Those items that either touch only intact skin but not mucous membranes or do not directly touch the client. Examples of non-critical items are equipment such as lifts, sliders, transfer belts, transfer boards, beds and wheelchairs.

Personal Care Items: Items including but not limited to shampoo, lotions, soaps, mouthwash, personal nail care items, razors.

Personal Protective Equipment (PPE): Clothing or equipment worn by staff for protection against hazards. PPE can include, but is not limited to: Safety Goggles, Safety Shoes, Respirators, Gloves, Protective Gowns, etc.

Reprocessing: The steps performed to prepare used medical equipment for re-use. The steps may include the collection and transportation of soiled devices, cleaning, inspection, disinfection, sterilization, packaging, labeling, clean transportation and storage of clean and disinfected/sterilized devices.

Reusable: A device that has been tested and designated by the manufacturer as suitable for reprocessing prior to use on a client.

Routine Practices: A system of infection prevention and control practices including appropriate hand hygiene and appropriate use of personal protective equipment (i.e. gloves, gowns, masks, faces shields, goggles) to be used with all clients during all care to prevent and control transmission of microorganisms in all health care settings.

Semi-Critical Items: Objects in contact with mucous membranes or non-intact skin but usually do not penetrate or go through them. Examples of semi-critical items are endoscope, gastroscope, colonoscope, some respiratory equipment, rectal and vaginal specula.

Terminal Cleaning: The thorough cleaning of a client room or bed space following discharge, death or transfer of the client, in order to remove contaminating microorganisms that might be acquired by subsequent occupants and/or staff. In some instances, terminal cleaning might be used when some types of Additional Precautions have been discontinued.

PRINCIPLES:

Cleaning and disinfection procedures will address the following principles:

1. Disinfectants will only be applied after visible soil and other impediments to disinfection have been removed.
2. Client care equipment should be dedicated to the use of a single client and cleaned, disinfected and/or reprocessed before reuse with another client.
3. Items routinely shared, which cannot be cleaned between uses, will follow a regular schedule for cleaning and disinfection.
4. Cleaning and maintenance processes will follow manufacturer's recommendations.
5. The application of tape on client care equipment should be discouraged.
6. All health care workers must follow Routine Practices and wear the required Personal Protective Equipment (PPE) appropriate for the task and as determined by the applicable MSDS.

7. Any damaged equipment must be reported to the unit/department manager for decision regarding replacement or the ability to clean.
8. Special, additional cleaning may be required in an outbreak situation. Procedures will be determined in consultation with the Infection Control Practitioner (ICP) or designate.
9. Disposable client care equipment and supplies shall be immediately discarded after use.
10. Personal care items/effects (such as lotions, razors, skin cleansers) are single client use items and are not to be shared between clients.
11. All horizontal and frequently touched surfaces shall be cleaned a minimum of daily and immediately when soiled.
12. The Regional Infection Prevention & Control Team must approve all products used for any/all stages of the cleaning/disinfection process.
13. Upholstered furniture and other cloth or soft furnishings that cannot be cleaned and disinfected must not be used in care areas. Facilities should have a plan to replace cloth furnishings with furnishings that can be cleaned and disinfected.
14. Mattress and pillow covers should be replaced when torn, cracked or have evidence of liquid penetration; the mattress or pillow should be replaced if it is visibly stained.
15. Antimicrobial treated surfaces are NOT recommended.
16. Aerosol or trigger sprayers should NOT be used for chemicals used in disinfecting and cleaning.
17. New non-critical medical equipment, including equipment provided by outside agencies:
 - i. Must be capable of being effectively cleaned and disinfected according to recommended standards.
 - ii. Must have written, item-specific manufacturer's cleaning and disinfection instruction.
18. A predetermined cleaning schedule must be followed and maintained including:
 - i. Assignment of responsibility and accountability for cleaning and/or reprocessing;
 - ii. A comprehensive record of completion of scheduled cleaning tasks. The records shall include signatures and dates of completion. Please refer to IPC-E00.100 Equipment Cleaning Schedule.
19. For non-acute care areas where modification of cleaning frequency is a consideration, prior consultation with the Regional Infection Control Team required.

EQUIPMENT:

1. The following products** are to be used for the cleaning and disinfection of non-critical, reusable client equipment. The applicable product will be chosen based on the minimum cleaning and disinfection level required and as determined in the Exhibit Recommended Minimum Cleaning, Disinfection, and Frequency for Non-Critical, Reusable Client Care Equipment and Environmental Items IPC-E00.098:

Clean and Low Level Disinfection (LLD)

- ◆ PerCept – 1:16 General Virucidal **Disinfectant*** Cleaner (Accelerated Hydrogen Peroxide) for disinfecting non-critical items and equipment.
- ◆ Oxivir Tb RTU Wipes – Ready-to-Use General Virucidal **Disinfectant**** Cleaner (Accelerated Hydrogen Peroxide) for disinfecting non-critical items and equipment.

Clean (CL)

- ◆ PerDiem – 1:64 Hard Surface **Cleaner** (Stabilized Hydrogen Peroxide) for hand contact and wet damp areas (e.g. call buttons, railings, etc.);

Dilution methods:

- Automatic dilution “Dema Proportioner” (device attached to tap which automatically dilutes product).
- Request pre-diluted cleaner/disinfectant from Environmental Services.
- Purchase Ready-To-Use (RTU) wipes and/or RTU pre-diluted solution.
- Manual dilution ratios: 1 part concentrated Perdiem to 64 parts tap water (14 ml's concentrated Perdiem to 1 litre tap water)

Products listed are currently approved for use in RHA Central. In facilities using products not listed, and for recommended alternatives for use in the client's home, seek advice of Regional Infection Prevention & Control Team to ensure product choice is comparable.

Product Name:	Contact Time for Disinfection to occur:
Oxivir RTU**	1 minutes when used full strength
Percept concentrate*	5 minutes when diluted with water 1:16

2. Tap water
3. Clean cloths
4. Gloves (non-sterile/procedure)
5. Adhesive remover (optional)
6. 70% Isopropyl Alcohol (optional)
7. Long-sleeved gown (if splash or spray likely)
8. Procedure mask (if splash or spray likely)
9. Eye protection, goggles or face shield (if splash or spray likely).

PROCEDURE:

1. The RHA Central has adopted three cleaning procedures for non-critical, reusable client care equipment and environmental items. The applicable procedure depends on the product type, product material and/or surface:
 - ◆ **Procedure A:** For wipeable equipment made of metal, plastic, vinyl, wood, leather or rubber (i.e. IV poles, infusion pumps, diagnostic imaging equipment, monitoring equipment, wheelchairs, mechanical lifts)
 - ◆ **Procedure B:** For hard to clean items made of fabric, paper, foam or similar materials (i.e. wheelchair cushions, sliders, slings, transfer belts)
 - ◆ **Procedure C:** For specialty items that are sensitive to the excessive use of standard cleaner/disinfectant (i.e. pulse oximeters, television sets, LCD screens, DVD players, VCR's, remote controls)

Procedure A:

For wipeable equipment made of metal, plastic, vinyl, wood, leather or rubber (i.e. IV poles, infusion pumps, diagnostic imaging equipment, monitoring equipment, wheelchairs, mechanical lifts).

Step	Task
1.	Don PPE according to Routine Practices including a new pair of disposable gloves.
Clean – removal of visible foreign and organic material:	
2.	Remove all tape and tape residue with adhesive remover. (Equipment is not considered clean unless all tape residue has been removed.) Grooves on equipment may require cleaning with a cleaning brush. Avoid the use of hard instruments for cleaning.
3.	If visibly contaminated pre-soak with PerDiem (for CL) or Oxivir/PerCept and use mechanical action to remove all visible soil. If using a basin/bucket do not re-dip or “double-dip” a used cloth into the solution. See IPC-E00.098 Recommended Minimum Cleaning, Disinfection, and Frequency for Non-Critical, Reusable Client Care Equipment and Environmental Items to determine cleaning/disinfection process to be used specific to the item.
Disinfect – inactivation of disease producing microorganisms:	
4.	Use a fresh clean cloth soaked (wet but not dripping) in appropriate solution. Do not spray or pour cleaner/disinfectant directly onto monitoring equipment or infusion pumps. Oxivir RTU Wipes (LLD) may be substituted if available and Manager approved.
5.	Wipe equipment thoroughly, avoiding any electrical or electronic connectors to prevent malfunction.
6.	Let air dry. Please note: The virucidal disinfectant cleaner PerCept requires a 5-minute contact time to be effective.
7.	Clean numeric display with a dry cloth if needed. Place soiled cloths in a bag for laundering. Disposable cloths should be disposed as regular waste.

Procedure B:

For hard to clean items made of fabric, paper, foam or similar materials (i.e. wheelchair cushions, sliders, slings, transfer belts).

Material	Task
Cardboard/ Paper	Wipe laminated cardboard/paper with Perdiem (for CL) or Oxivir/PerCept (for LLD). All other cardboard/paper shall be discarded after use.
Fabric/ Foam without covering	Follow manufacturer's instructions. Most fabrics require machine washing and drying at specified drying time/temperature in a gas/electric dryer. Bleach shall not be added unless approved by the product manufacturer. Limit uncovered foam for single client use, then discard. Please note: All washing processes at low temperature levels require Infection Control approval.
Foam	Covered/seam sealed foam shall be thoroughly wiped with Oxivir/PerCept (LLD). Please note: The virucidal disinfectant cleaner Oxivir requires 1-minute contact time while PerCept requires 5-minute contact time to be effective.
Other	Consult Infection Prevention and Control and/or Environmental Services for cleaning instructions.

Procedure C:

For specialty items that are sensitive to the excessive use of standard cleaner/disinfectant (i.e. television sets, LCD screens, DVD players, VCR's, remote controls). Follow manufacturer's directions.

Step	Task
1.	Don PPE according to Routine Practices including a new pair of disposable gloves.
2.	Use a fresh clean cloth soaked (wet but not dripping) in Perdiem (for CL) or Oxivir/PerCept (for LLD). Do not spray or pour cleaner/disinfectant directly onto monitoring equipment or infusion pumps. Oxivir RTU Wipes may be substituted if available and Manager approved.
3.	Wipe equipment thoroughly outside, including all cables. Avoid wiping any electrical or electronic connectors to prevent malfunction. Do not use Perdiem or Oxivir/PerCept on LCD screens – use Isopropyl Alcohol or a commercial LCD screen cleaner instead.
4.	Let air dry. Please note: The virucidal disinfectant cleaner PerCept requires a 5 minute contact time to be effective, Oxivir, requires a 1 minute contact time
5.	If residue apparent, wipe with a cloth dampened with water.
6.	If damp after 5 minutes, dry cable and equipment using a dry cloth. Place soiled cloths in a bag for laundering. Disposable cloths should be disposed of as regular waste.

2. Please refer to the Exhibit Recommended Minimum Cleaning, Disinfection, and Frequency for Non-Critical, Reusable Client Care Equipment and Environmental Items IPC-E00.098 for specific direction on:
 - a. Type of cleaning procedure (A, B or C)
 - b. Minimum cleaning & disinfection level (CL or LLD)
 - c. Minimum frequency of cleaning
 - d. Additional remarks

3. Please refer to the Exhibit Recommended Cleaning and Disinfection Directions for Chest Style Ice Machines IPC-E00.099 for specific weekly cleaning direction and preventative maintenance cleaning direction.
Note: Follow the manufacturer's specific direction for Preventive Maintenance if there is any variation from these directions.

4. Please refer to the "**RHA Central Environmental Services Procedure Manual**" for routine housekeeping cleaning procedures.

Each care area will develop a process to document cleaning and disinfection of non-critical re-usable client care equipment and environmental items as appropriate for their area. Please refer to the Exhibit Equipment Cleaning Schedule IPC-E00.100. Documentation will include:

- a. Itemized record of completion of scheduled cleaning tasks
- b. Signature
- c. Date of completion

DOCUMENTATION:

[Recommended Minimum Cleaning, Disinfection, and Frequency for Non-Critical, Reusable Client Care Equipment and Environmental Items IPC-E00.098](#)

[Recommended Cleaning and Disinfection Directions for Chest Style Ice Machines IPC-E00.099](#)

[Equipment Cleaning Schedule IPC-E00.100](#)

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