Section Four:

Implementation Resources

Appendix 1: Advantages and Disadvantages of Common Hospital Disinfectants and Sporicides for Environmental Cleaning

Alcohol (60%-80%)

The advantages of alcohols include its broad spectrum of activity (bactericidal, fungicidal, virucidal, and mycobactericidal),[198] and being nontoxic,[198] low cost, rapid action,[3,198] nonstaining,[3,198] leaving no residue,[3] noncorrosive,[3,198] and being effective on clean equipment or devices that can be immersed.

The disadvantages of alcohol include the following:

- evaporation may diminish concentration, not suitable for use on large surface[3,198]
- flammable—store in a cool, well-ventilated area; refer to Fire Code restrictions for storage of large volume of alcohol[198]
- coagulates protein; a poor cleaner
- may dissolve shellac lens mountings[92]
- hardens and swells plastic tubing[92]
- harmful to silicone; causes brittleness
- may harden rubber or cause deterioration of glues[3,198]
- inactivated by organic material[3,198]
- contraindicated in the operation room[3]
- slow acting against non-enveloped viruses[198,463]

Sodium hypochlorite (bleach)

The advantages of sodium hypochlorite include its broad-spectrum of activity (bactericidal, fungicidal, virucidal, mycobactericidal), sporicidal at higher concentrations (e.g., 5000 ppm for 10 minutes),[3,198,376,597] reduction of biofilm at high concentrations,[198] low cost, rapid action, readily available in nonhospital settings, nonflammable, and unaffected by water hardness.[198]

The disadvantages of sodium hypochlorite include the following:

- Corrosive to metals at high concentration (e.g., > 500 ppm).[3,198,376]
- Inactivated by organic materials;[3,198,376] blood must be removed prior to disinfection of blood spills.
- Irritate skin and mucous membranes.[3,198] Use in well-ventilated area required due to possible burns to oropharyngeal, oesophageal, and gastric tissues. [376]
- Storage in closed containers away from ultraviolet light and heat to prevent deterioration. Immediate use after dilution preferred.[3,198]
- Discolouration of clothing and carpets.[198,376]
- Salt residue left behind.[198]
- Release of toxic chlorine when mixed with acids or ammonia.[198,463,466,467]

Improved Hydrogen Peroxide 0.5% (7% solution diluted 1:16)

The advantages of this disinfecting agent include its broad spectrum of activity (fungicidal, virucidal and mycobactericidal),[154,198,376] and being nontoxic,[198,376] safe for the environment,[198] rapid action,[198,376] nonstaining and nonflammable,[198] active in the presence of organic materials, [376] noncorrosive,[376] and having excellent cleaning ability due to detergent properties. However, it is contraindicated for use on copper, brass, and other nonferrous metals.[463,618]

Improved Hydrogen Peroxide 4%-5%

The advantages of this disinfecting agent include being sporicidal,[376] nontoxic, safe for the environment, and available in a gel format to ensure vertical surface adhesion during required contact time. However, its disadvantages include the following:

- expensive[198,376]
- contraindicated for use on copper, brass, and other nonferrous metals, rubber, plastics
- do not use on monitors

Hydrogen Peroxide 3% (Non-antiseptic Formulations)

The advantages of this disinfecting agent include its being nontoxic and safe for the environment.[3] However, it requires a prolonged contact time and is contraindicated for use on copper, zinc, brass, aluminum.[3] In addition, it requires storage in a cool place protected from light. Hydrogen peroxide has also been reported to quench the results of ATP bioluminescence.[466]

Iodophors (Non-antiseptic Formulations)

Iodophors have a broad spectrum of microbicidal activity but are not fungicidal or sporicidal.[198] They are nonflammable[198] and rapid in action[3] and nontoxic. However, their disadvantages include:

- corrosive to metal unless combined with inhibitors[3]
- inactivated by organic materials[3]
- slow in action against fungi[198]
- degrading silicone catheters[154,198]
- may stain fabrics and synthetic materials[3,198]

Phenolics

Phenolics have a broad spectrum of activity but are not sporicidal.[198,376] They are nonstaining and nonflammable,[198] and they are commercially available with added detergents to provide one-step cleaning and disinfecting.[3] However, their disadvantages include the following:

- NOT for use in nurseries or equipment contacting infants (e.g., baby scales) due to an association with neonatal jaundice or hyperbilirubinemia[3,92,154]
- not recommended for use on food contact surfaces[3]
- leave a residual film on environmental surfaces[3]
- possible absorption through skin[3]
- absorption by porous materials[198,376]
- possible depigmentation of skin[198,376]
- irritating tissue[198,376]
- leaving some synthetic flooring sticky after repeated use[3]
- damaging rubber and react with some plastics and aluminum[619]

Quaternary Ammonium Compounds

Quaternary ammonium compounds are noncorrosive[3] compatible with various surface materials, and have persistent microbicidal effect on surfaces.[198] They have good cleaning ability and usually have detergent properties.[3,198] They may also be used on food contact surfaces. However, their disadvantages include the following:

- do not use to disinfect instruments[3]
- limited use as disinfectant because of narrow microbicidal spectrum (limited activity against non-enveloped viruses, not mycobactericidal or sporicidal)[3,198,376]
- diluted solutions may support the growth of microorganisms[161,620]
- activity reduced by various materials (e.g., cotton , water hardness, microfibre)[160,198,376]
- have been reported to cause or worsen respiratory and skin irritation and allergic reactions[318,324,376]

Adapted from Ontario Agency for Health Protection and Promotion (Public Health Ontario). Provincial Infectious Diseases Advisory Committee. Best practices for cleaning, disinfection and sterilization of medical equipment/devices. 3rd ed. Toronto, ON: Queen's Printer for Ontario; May 2013.

Appendix 2: Cleaning and Disinfection Decision Chart for Noncritical Equipment

The following table relates to noncritical patient care equipment only, i.e., equipment that comes into contact with intact skin. For semi-critical and critical equipment that require high-level disinfection or sterilization, see PIDAC's *Best Practices for Cleaning, Disinfection and Sterilization in All Health Care Settings*.[19]

Table 10: Decision Chart for Cleaning and Disinfection of Noncritical Equipment

Level of Cleaning and Disinfection	Classification of Equipment and Devices	Effective Products**
Cleaning Physical removal of soil, dust or foreign material. Chemical, thermal or mechanical aids may be used. Cleaning usually involves soap and water, detergents or enzymatic cleaners. Thorough cleaning is required before disinfection or sterilization may take place.	All reusable equipment and devices	Concentration and contact time are dependent on manufacturers' instructions ▪ Quaternary ammonium compounds ▪ Enzymatic cleaners ▪ Soap and water ▪ Detergents ▪ 0.5% improved hydrogen peroxide
Low-Level Disinfection Level of disinfection required when processing noncritical equipment/devices or some environmental surfaces. Low-level disinfectants kill most vegetative bacteria and some fungi as well as enveloped (lipid) viruses. Low-level disinfectants do not kill mycobacteria or bacterial spores.	Noncritical equipment and devices	Concentration and contact time are dependent on manufacturers' instructions ▪ 3% hydrogen peroxide ▪ 60% to 80% alcohol ▪ Sodium hypochlorite (bleach) at 1000 ppm ▪ 0.5% improved hydrogen peroxide ▪ Quaternary ammonium compounds ▪ Iodophors ▪ Phenolics (should not be used in nurseries or equipment that comes into contact with infants such as scales)

Appendix 3: General Cleaning Practices for All Health Care Settings

Before cleaning:

- Gather materials required for cleaning before entering the room.
- Follow the manufacturer's instructions for proper dilution and contact time for cleaning and disinfecting solutions.
- Check for Additional Precautions signs. Follow precautions as indicated.
- Clean hands and put on appropriate personal protective equipment on entering the room.
- Remove clutter before cleaning.

During cleaning:

- Progress from the least soiled areas to the most soiled areas.
- Progress from high surfaces to low surfaces.
- Remove gross soil prior to cleaning and disinfection.
- Dry mop prior to wet/ damp mop.
- Minimize turbulence to prevent the dispersion of dust that may contain microorganisms (e.g., never shake mops).
- Do not double-dip cloths.
- Change cloths/ mop heads frequently.
- Change cleaning solutions as per manufacturer's instructions. Change more frequently in heavily contaminated areas, when visibly soiled and immediately after cleaning blood and body fluid spills.
- Containers for liquid soap, cleaners/disinfectants are disposable. The practice of topping up is not acceptable since it can result in contamination of the container and solution.
- Be alert for needles and other sharp objects. Pick up sharps using a mechanical device and place into sharps container. Report incident to supervisor.
- Collect waste, handling plastic bags from the top (do not compress bags with hands).
- Clean hands on leaving the room.

After cleaning:

- Do not overstock rooms.
- Tools used for cleaning and disinfecting must be cleaned and dried between uses.
- Launder mop heads daily. All washed mop heads must be dried thoroughly before re-use.
- Clean housekeeping cart and carts used to transport waste daily.

Appendix 4: Sample Procedure for Routine Daily Cleaning of Patient/Resident Room

For All Rooms, Including Those in Additional Precautions (Except for *C. difficile* and VRE)

1. **Assessment**

   - Check for Additional Precautions signs and follow the precautions indicated.
   - Walk through room to determine what needs to be replaced (e.g., toilet paper, paper towels, soap, alcohol-based hand rub, gloves, sharps container) and whether any special materials are required; this may be done before or during the cleaning process.
   - Remove clutter.

2. **Assemble supplies**

   - Ensure an adequate supply of clean cloths is available.
   - Prepare fresh disinfectant solution according to manufacturer's instructions.

3. **Clean hands using alcohol-based hand rub and put on gloves and any other required personal protective equipment.**

4. **Clean room, working from clean to dirty and high to low areas of the room:**

   - Use fresh cloth(s) for cleaning each patient/resident bed space:
     - If a bucket is used, do not double-dip cloth(s).
     - Do not shake out cloth(s).
     - Change the cleaning cloth when it is no longer saturated with disinfectant and after cleaning heavily soiled areas such as toilet and bedpan cleaner.
     - If there is more than one patient/resident bed space in the room, use fresh cloth(s) for each and complete the cleaning in each bed space before moving to the next.
   - Start by cleaning doors, door handles, push plate and touched areas of frame.
   - Check walls for visible soiling and clean if required.
   - Clean light switches and thermostats.
   - Clean wall mounted items such as alcohol-based hand rub dispenser and glove box holder.
   - Check and remove fingerprints and soil from low level interior glass partitions, glass door panels, mirrors and windows with glass cleaner.
   - Check privacy curtains for visible soiling and replace if required.
   - Clean all furnishings and horizontal surfaces in the room including chairs, window sill, television, telephone, computer keypads, night table and other tables or desks. Lift items to clean the tables. Pay particular attention to high-touch surfaces.
   - Wipe equipment on walls such as top of suction bottle, intercom and blood pressure manometer as well as IV pole.
   - Clean bedrails, bed controls and call bell.
   - Clean bathroom/shower (see Appendix 5).
   - Clean floors (see Appendix 9, Appendix 10, and Appendix 11 for floor cleaning procedures).

5. **Disposal**

   - Place soiled cloths in designated container for laundering.
   - Check sharps container and change when ¾ full (do not dust the top of a sharps container).
   - Remove soiled linen if bag is full.
   - Place obvious waste in receptacles.
   - Remove waste.

6. **Remove gloves and clean hands** with alcohol-based hand rub; if hands are visibly soiled, wash with soap and water. Do NOT leave room wearing gloves or other personal protective equipment.

7. **Replenish** supplies as required (e.g., gloves, alcohol-based hand rub, soap, paper towel).

8. **Clean hands with alcohol-based hand rub.**

For Rooms of Patients/Residents on Contact Precautions for *C. difficile* and VRE

In addition to the procedure above:

- Use a fresh bucket and mop head (dust mop and wet mop) for each room, and only for that room.
- After cleaning, apply a disinfectant to all surfaces in the room. Ensure sufficient contact time with the disinfectant.
  - For *C. difficile*, use a sporicidal agent (omit this step if the cleaning product is also a sporicidal disinfectant).
  - For VRE, use a low-level hard surface disinfectant (omit this step if the cleaning product is a one-step cleaner/disinfectant).

Appendix 5: Sample Procedure for Routine Bathroom Cleaning

NOTE: Bathrooms require Hospital Clean

Working from clean areas to dirty areas:

- Remove soiled linen from floor; wipe up any spills; remove waste.
- Clean door handle and frame, light switch.
- Clean chrome wall attachments.
- Clean inside and outside of sink, sink faucets and mirror; wipe plumbing under the sink; apply disinfectant to interior of sink; ensure sufficient contact time with disinfectant; rinse sink and dry fixtures.
- Clean all dispensers and frames.
- Clean call bell and cord.
- Clean support railings, ledges/shelves.
- Clean shower/tub faucets, walls and railing, scrubbing as required to remove soap scum; inspect grout for mould; apply disinfectant to interior surfaces of shower/tub, including soap dish, faucets and shower head; ensure sufficient contact time for disinfectant; rinse and wipe dry; inspect and replace shower curtains monthly and as required.
- Clean bedpan support, entire toilet including handle and underside of flush rim; ensure sufficient contact time with disinfectant.
- Remove gloves and wash hands.
- Replenish paper towel, toilet paper, waste bag, soap and alcohol-based hand rub as required.
- Report mould and cracked, leaking or damaged areas for repair.

Additionally for discharge/transfer cleaning:

- Change all waste bags, clean waste container if dirty.
- Scrub shower walls.
- Discard toilet brush/swab if single bathroom.

Appendix 6: Sample Procedure for Routine Discharge/Transfer Cleaning of a Patient/Resident Room

For All Rooms, Including Those on Additional Precautions (Except for *C. difficile* and VRE)

1. **Assessment.**

   - Check for Additional Precautions signs and follow the precautions indicated.
   - Walk through room to determine what needs to be replaced (e.g., toilet paper, paper towels, soap, alcohol-based hand rub, gloves, sharps container) and whether any special materials are required; this may be done before or during the cleaning process.
   - Remove clutter.

2. **Assemble supplies.**

   - Ensure an adequate supply of clean cloths is available.
   - Prepare fresh disinfectant solution according to manufacturer's instructions.

3. **Clean hands using alcohol-based hand rub and put on gloves and any other required personal protective equipment.**

4. **Remove dirty linen:**

   - Strip the bed, discarding linen into soiled linen bag; roll sheets carefully to prevent aerosols.
   - Inspect bedside curtains and window treatments; if visibly soiled, clean or change. In long-term care homes, change curtain. **For rooms on Additional Precautions, remove curtains for cleaning and disinfecting.**
   - Remove gloves and clean hands.

5. **Apply clean gloves and clean room, working from clean to dirty and from high to low areas of the room:**

   - Use fresh cloth(s) for cleaning each patient/resident bed space:
     - If a bucket is used, do not double-dip cloth(s).
     - Do not shake out cloth(s).
     - Change the cleaning cloth when it is no longer saturated with disinfectant and after cleaning heavily soiled areas such as toilet and bedpan cleaner.
     - If there is more than one patient/resident bed space in the room, use fresh cloth(s) for each and complete the cleaning in each bed space before moving to the next.
   - Start by cleaning doors, door handles, push plate and touched areas of frame.
   - Check walls for visible soiling and clean if required.
   - Clean light switches and thermostats.
   - Clean wall mounted items such as alcohol-based hand rub dispenser and glove box holder.
   - Check and remove fingerprints and soil from low level interior glass partitions, glass door panels, mirrors and windows with glass cleaner.

- Clean all furnishings and horizontal surfaces in the room including chairs, window sill, television, telephone, computer keypads, night table and other tables or desks. Lift items to clean the tables. Pay particular attention to high-touch surfaces.
- Wipe equipment on walls such as top of suction bottle, intercom and blood pressure manometer.
- Clean equipment (e.g., IV pole and pump, walkers, wheelchairs).
- Clean inside and outside of patient/resident cupboard or locker.

6. **Clean the bed.**

   - Clean top and sides of mattress, turn over and clean underside.
   - Clean exposed bed springs and frame.
   - Check for cracks or holes in mattress and have mattress replaced as required.
   - Inspect for pest infestation.
   - Clean headboard, foot board, bed rails, call bell and bed controls; pay particular attention to areas that are visibly soiled and surfaces frequently touched by staff.
   - Clean all lower parts of bed frame, including casters.
   - Allow mattress to dry.

7. **Clean bathroom/shower** (see Appendix 5).

8. **Clean floors** (see Appendix 9, Appendix 10, and Appendix 11 for floor cleaning procedure).

9. **Disposal.**

   - Place soiled cloths in designated container for laundering.
   - Check sharps container and change when ¾ full (do not dust the top of a sharps container).
   - Remove soiled linen bag and replace with fresh bag.
   - Place obvious waste in receptacles.
   - Close waste bags and remove; clean waste can/holder if soiled and add a clean bag.

10. **Remove gloves and clean hands** with alcohol-based hand rub; if hands are visibly soiled, wash with soap and water. **Do NOT leave room wearing gloves or other personal protective equipment.**

11. **Remake** bed and **Replenish** supplies as required (e.g., gloves, alcohol-based hand rub, soap, paper towel, toilet brush).

12. Return cleaned equipment (e.g., IV poles and pumps, walkers, commodes) to clean storage area.

For Rooms of Patients/Residents on Contact Precautions for *C. difficile* and VRE

In addition to the procedure above:

- Remove all dirty/used items (e.g., suction container, disposable items).
- Discard and replace the following:
  - soap
  - toilet paper
  - paper towels
  - glove box
  - toilet brush
- Use fresh cloths, mop, supplies and solutions to clean the room.
- Clean and disinfect all surfaces and allow for the appropriate contact time with the disinfectant.
  - For *C. difficile*, use a sporicidal agent (omit this step if the cleaning product is also a sporicidal disinfectant).
  - For VRE, use a low-level hard surface disinfectant (omit this step if the cleaning product is a one-step cleaner/disinfectant).

Appendix 7: Sample Procedure for Enhanced Shower and Sink Cleaning

These procedures may be used for enhanced sink cleaning if the grid over the plug hole is removable.

After cleaning the bathroom as described in Appendix 5:

- Put on personal protective equipment (e.g., tyvek suit, gloves, facial protection)
- Take out shower grate.
- Remove debris from shower grate, descale if necessary, rinse.
- Squall grout and pipe.
- Rinse with water for 10 minutes.
- Apply enzymatic cleaner to grout, pipe sides; fill P-trap with cleaner.
- Insert plumbers plug.
- Fill pipe with enzymatic cleaner and cover grout. Allow for sufficient contact time as per cleaner instruction.
- Remove plumbers plug.
- Brush drain.
- Rinse with water for 10 minutes.
- Apply sporicidal agent to grout, pipe sides; fill P-trap with sporicidal agent.
- Insert plumbers plug.
- Fill pipe with sporicidal agent and cover grout. Allow for sufficient contact time as per disinfectant instruction.
- Remove plumbers plug.
- Brush drain.
- Rinse with water for 5 minutes.
- Heat up steamer.
- Tape over drain pipe.
- Insert steamer tip and apply steam for 10 minutes.

This tool is modified from St. Joseph's Health Centre Toronto, Toronto, Ontario (shower drain disinfection protocol). Received 2017 Mar 7.

Appendix 8: Recommended Minimum Cleaning and Disinfection Level and Frequency for Noncritical Client/Patient/Resident Care Equipment and Environmental Items

The following chart relates to **noncritical patient care equipment** only, i.e., equipment that comes into contact with intact skin. For semi-critical and critical equipment that require high-level disinfection or sterilization, see PIDAC's *Best Practices for Cleaning, Disinfection and Sterilization in All Health Care Settings*. Refer to Appendix 2 for appropriate agents that may be used for cleaning and disinfection of noncritical patient care equipment.

This chart also includes **environmental surfaces and items** that do not come into contact with skin. Refer to Section III and Appendix E for guidance regarding cleaning and disinfection of environmental surfaces and items.

Table 11: Recommended Minimum Cleaning and Disinfection Level and Frequency for Noncritical Equipment and Environmental Items

Item	Minimum Cleaning and Disinfection Level	Minimum Frequency	Remarks
Airflow sensors (sleep labs)	clean + low-level disinfect	• between patients	• clean with detergent and water before disinfection
Apnoea monitor: monitor/sensor pad	clean + low-level disinfect	• between patients and when soiled	
Arrest cart	see "resuscitation cart"		
Basin: bath or wash	clean + low-level disinfect	• after each use	• dry completely before use
Bassinette	clean + low-level disinfect	• weekly • when soiled • between newborns	
Bath seat/raised toilet seat: dedicated to one patient	clean + low-level disinfect	• when soiled • between patients	
Bath seat/raised toilet seat: multiple patient use	clean + low-level disinfect	• between patients	
Bed: bedrail and extender	clean + low-level disinfect	• daily	
Bed:	clean + low-level	• between patients	

Item	Minimum Cleaning and Disinfection Level	Minimum Frequency	Remarks
mattress	disinfect	and when soiled	
Bed: **halo bed**	clean + low-level disinfect	• after each patient and when soiled	
Bed: **visitor cot**	clean + low-level disinfect	• change linen and clean between uses	
Bedpan and urinal: **single patient**	clean only	• clean after each use if designated to patient	• remove gross soil and fluids between cleaning
Bedpan and urinal: **between patients**	clean + low-level disinfect	• between patients	• remove gross soil and fluids before cleaning
Bladder scanner	clean + low-level disinfect	• between patients	
Blood pressure cuff	clean + low-level disinfect	• between patients and when soiled	• ideally stays with patient until discharge
Blood tube holder	clean + low-level disinfect (for re-usable holders)	• after each use	• single-use preferred • for re-usable holders, discard if visibly soiled
Call bell	clean + low-level disinfect	• daily and between patients	
Cardiac monitor	clean + low-level disinfect	• daily and between patients	
Cast cutting: **blades**	clean only or disposable	• when soiled	• send for sterilization if contact with blood or body fluids
Cast cutting: **saws**	clean only	• when soiled	
Chair (includes recliners, patient chairs and shower chairs)	clean + low-level disinfect	• daily and when soiled	
Chart cover: **binder and/or clipboard**	clean + low-level disinfect	• when soiled	• charts and clipboards should not go into rooms on Additional Precautions • replace worn binders
Clippers: **surgical**	clean + low-level disinfect	• between patients	• disposable heads are preferred
Commode chairs: **dedicated to one patient**	clean + low-level disinfect	• when soiled • between patients	• patients with VRE or *C. difficile* must have dedicated commode • for *C. difficile*, consider cleaning with a sporicidal agent • remove gross soil and fluids before cleaning and disinfection

Item	Minimum Cleaning and Disinfection Level	Minimum Frequency	Remarks
Commode chairs: multiple patient use	clean + low-level disinfect	• when soiled • between patients	• it is preferable to dedicate a commode chair to each patient • remove gross soil and fluids before cleaning and disinfection
Cord clamp			• must be single-use, disposable and discarded after use
Cyclers (peritoneal dialysis)	clean + low-level disinfect	• between patients	
Defibrillator	see "resuscitation cart"		
Diagnostic imaging: portable – machine	clean + low-level disinfect	• when soiled and on leaving Additional Precautions room	
Diagnostic imaging: portable – portable grid/film cassette	clean + low-level disinfect	• between patients if not covered	• ideally should be covered (e.g., pillowcase)
Diagnostic imaging: mammography – paddles	clean + low-level disinfect	• between patients	
Dopplers: transducers	clean + low-level disinfect	• after each use	• wipe immediately after use to remove residual ultrasound gel before cleaning
Dopplers: probes	clean + low-level disinfect	• after each use	• probes that contact mucous membranes or non-intact skin require high-level disinfection
Electrocardiogram: machine and cables	clean + low-level disinfect	• between patients	
Electric razor: razor body and handle	clean + low-level disinfect	• as required	• must be single patient use
Examination table	clean + low-level disinfect	• between patients and when soiled	
Glucometer	clean + low-level disinfect	• after each us	
Halo bed	see "bed"		
Hydraulic lift: machine	clean + low-level disinfect	• as required	
Hydraulic lift: sling	launder	• between patients and when soiled	• dedicated to patient if possible • launder if visibly soiled
Ice machine: interior	clean + low-level disinfect	• every 3 months	• drain and thoroughly clean with a de-limer

Item	Minimum Cleaning and Disinfection Level	Minimum Frequency	Remarks
			• see Appendix 12 for sample cleaning procedure
Ice machine: exterior	clean + low-level disinfect	• every 3 days	
Intravenous (IV): pumps, poles, warmers	clean + low-level disinfect	• between patients • when soiled	
Isolette	clean + low-level disinfect	• weekly • when soiled • between patients	• see Appendix 20 for sample cleaning procedure
Laryngoscope: handle	clean + low-level disinfect	• between patients	• laryngoscope blade requires high-level disinfection
Mattress	See "bed"		
Measuring container (urine): single patient use	clean only	• after each use	
Measuring container (urine): multiple patient use	clean + low-level disinfect	• after each use	• one container per patient, labelled with name
Ophthalmoscope	clean + low-level disinfect	• between patients	
Orthopedic equipment: crutches, traction etc.	clean + low-level disinfect	• between patients	
Otoscope: handle	clean + low-level disinfect	• between patients	• ear speculum of otoscope requires high-level disinfection
Otoscope: optoacoustic emission (OAE) screening tips	disposable, or clean + high-level disinfect	• between patients	
Oximeter probes	clean + low-level disinfect	• daily and between patients	• if single-use, discard after use • refer to manufacturer's instructions for cleaning
Pillow	clean + low-level disinfect	• between patients and when soiled	• discard if cracked
Reflex hammer	clean + low-level disinfect	• between patients	
Restraints	clean only	• between patients and when soiled	• launder
Resuscitation cart/arrest cart	clean + low-level disinfect	• weekly and after use	• avoid taking cart into Contact Precautions room, have a designated clean person to pass supplies as required

Item	Minimum Cleaning and Disinfection Level	Minimum Frequency	Remarks
Resuscitation cart/arrest cart: defibrillator	clean + low-level disinfect	• after each use	
Resuscitation cart/arrest cart: trays	clean + low-level disinfect	• after each use	• all items taken into Contact Precautions room must be discarded and not returned to the cart, even if unopened
Scales: adult	clean + low-level disinfect	• daily and when soiled	
Scales: diaper	clean + low-level disinfect	• after each use	
Scales: newborn	clean + low-level disinfect	• after each use	• do not use phenolics
Stretcher	clean + low-level disinfect	• after each use	
Stethoscope	clean + low-level disinfect	• after each use	• ideally use own stethoscope • if shared, disinfect ear pieces
Suction machines	clean + low-level disinfect	• between patients and when soiled	
Table: bedside and over bed	clean + low-level disinfect	• daily • when soiled • between patients	
Telemetry equipment: monitor and cables	clean + low-level disinfect	• between patients and when soiled	
Tourniquet	clean + low-level disinfect	• between patients or disposable	• preferably dedicate to patient • discard when soiled/ cracked
Transfer boards	clean + low-level disinfect	• between patients and when soiled	
Transport equipment: walker, wheelchair	clean + low-level disinfect	• after each use	
Tub: bath board	clean + low-level disinfect	• after each use	• iodine and chlorine products may damage tub surfaces
Ultrasound transducers: handle, cable, and external	clean + low-level disinfect	• between patients	• use high-level disinfection for transducer probes if they touch mucous membranes or non-intact skin
Urinal	see “bedpan”		
Urine measuring container	see “measuring container”		

Item	Minimum Cleaning and Disinfection Level	Minimum Frequency	Remarks
Walker	see “transport equipment”		
Wall-mounted oxygen and suction fixtures	clean + low-level disinfect	• between patient and when soiled	
Water jug	clean only	• daily	• clean in dishwasher
Wheelchair	see “transport equipment”		

Appendix 9: Sample Procedure for Mopping Floors Using Dry Dust Mop

Working from clean areas to dirty areas:

- Remove debris from floor and dry any wet spots with paper towel.
- Remove gum or other sticky residue from floor.
- Starting in the furthest corner of the room, drag the mop toward you, then push it away, working in straight, slightly overlapping lines and keeping the mop head in full contact with the floor.
- Do not lift dust mop off the floor once you have started, use swivel motion of frame and wrist to change direction.
- Move furniture and replace after dust mopping, including under and behind bed.
- Carefully dispose of debris, being careful not to stir up dust.
- Replace mop head/pad when soiled and after mopping a room.

Appendix 10: Sample Procedure for Mopping Floors Using Wet Loop Mop and Bucket

Working from clean areas to dirty areas:

- Prepare fresh cleaning solution according to the manufacturer's instructions using appropriate personal protective equipment according to the safety data sheet.
- Place "wet floor" caution sign outside of room or area being mopped.
- Immerse mop in cleaning solution and wring out.
- Push mop around baseboards first, paying particular attention to removing soil from corners; avoid splashing walls or furniture.
- In open areas use a figure eight stroke, overlapping each stroke; turn mop head over every five or six strokes.
- Mop a three metre by three metre (nine feet by nine feet) area, then rinse and wring mop.
- Repeat until entire floor is done.
- Change the mop head when heavily soiled and at the end of the day.
- Change cleaning solution frequently enough to maintain appropriate concentration of solution.

Appendix 11: Sample Procedure for Mopping Floors Using a Microfibre Mop

Working from clean areas to dirty areas:

- Fill plastic basin with cleaning solution.
- Place microfibre pad(s) to soak in basin.
- Take a clean pad from the basin, wring out and attach to mop head using Velcro strips.
- Remove pad when soiled and set aside for laundering.
- Use a fresh microfibre pad for each room.
- Send soiled, reusable microfibre pads for laundering at the end of the day.

Appendix 12: Sample Procedure for Cleaning Ice Machines

Daily:

- Visually inspect ice machines daily and report any signs of mould or scale.
- Replace ice scoop daily and send for cleaning (for ice machines requiring a scoop).
- Do not store food or other items in ice chests or machines.

Quarterly:

- Disconnect power supply to ice machine.
- Remove machine away from patient/resident care area.
- Remove and discard ice from bin.
- Allow unit to warm to room temperature.
- Disassemble removable parts of machine.
- Thoroughly clean machine and parts with water and detergent.
- Remove scale from machine components.
- Rinse components with fresh potable tap water.
- Clean ice storage chest or bin with fresh water and detergent; rinse with fresh potable tap water.
- Sanitize machine by circulating a 100 ppm solution of sodium hypochlorite through the ice-making and storage systems for two hours.
- Drain sodium hypochlorite solution and flush with fresh potable tap water.
- Allow all surfaces to air dry.
- Check for required repairs or maintenance (e.g., filter changes).
- Apply a label to the ice machine noting date of cleaning.

Notes:

This tool is adapted from Sunnybrook Health Sciences Centre, Toronto, Ontario (policy II-Q-1200), revised 2007; and the US Centers for Disease Control and Prevention's *Guidelines for Environmental Infection Control in Health Care Facilities, 2003*.

Appendix 13: Sample Procedure for Cleaning Toys

For high-touch surfaces (e.g., electronic games, keyboards, joysticks; playhouses/climbers/rocking horses; or tables/chairs/doorknobs in playrooms):

- Clean and disinfect at least daily using a hospital disinfectant.

For shared books, magazines, puzzles, cards, and comics:

- Discard when visibly soiled.
- Discard after use in rooms where the resident/patient is on Additional Precautions.

For toy storage bins/boxes/cupboards/shelves:

- Ensure a regular, scheduled clean is performed.

For toys that may be "mouthed" (e.g., infant and toddler toys):

- Clean, disinfect and rinse thoroughly after each use.

Notes:

This tool is adapted from IPAC-Canada's *Practice Recommendations: Toys, 2011*.

Appendix 14: Sample Procedure for Cleaning an Ambulance

Routine Clean Following Each Transport:

- Place biomedical waste (e.g., dressings, bandages, contaminated sheets that are saturated with blood) in a clearly marked biohazardous waste receptacle.
- Carefully dispose of sharps that are found during cleaning in appropriate sharps container.
- Remove used linens/blankets for laundering.
- Clean and disinfect/sterilize equipment used during the call.
- Clean and disinfect the cab and patient compartment as required.
- If the vehicle is heavily contaminated it will be taken out of service and deep cleaned.
- Restock vehicle as required.

Deep Clean as Required and When Scheduled:

Driver's Compartment

- Remove all equipment from the front of the vehicle.
- Clean and vacuum floor.
- Clean and disinfect all interior surfaces, including walls, doors, radio equipment, dash and windows.

Patient Compartment

- Remove stretchers, clean and disinfect including mattress and belts; check for wear or damage.
- Remove wall suction, clean and disinfect.
- Remove contents of cupboards and shelves; clean and disinfect all surfaces.
- Clean, disinfect and dry all hard surface items before returning to cupboard or shelf; inspect for damage and expiration dates; repair/replace as needed.
- Sweep, vacuum, clean and disinfect floor.
- Clean and disinfect chairs, bench seats, seat belts.
- Clean and disinfect all interior surfaces, including ceiling and walls.
- Remove scuff marks.
- Check interior lighting.
- Empty, clean and disinfect waste containers.
- Clean interior windows.

Equipment Storage Compartment

- Remove all equipment and sweep out compartment
- Clean and disinfect compartment and restock

Notes:

This tool is adapted from Ministry of Health and Long-Term Care, Emergency Health Services Branch's *Infection Prevention and Control Best Practices Manual for Land Ambulance Paramedics*, Version 1.0 (March 2007); Greater Sudbury Emergency Medical Services *Vehicle and Equipment Policy and Procedure Manual*, Section 4 (revised August 2006); and Algoma Emergency Medical Services, *Standardized Vehicle Deep Clean Procedure*.

Appendix 15: Sample Procedure for Cleaning Operating Rooms Between Cases

- Prepare fresh disinfectant solution according to manufacturer's instructions.
- Clean hands and put on gloves.
- Collect and remove waste.
- Collect and remove all soiled linen.
- Remove gloves and clean hands.
- Use a cloth dampened in hospital disinfectant solution to clean and disinfect horizontal surfaces that have come in contact with a patient or body fluids, including tops of surgical lights, blood pressure cuffs, tourniquets and leads.
- Clean reflective portion of surgical lights.
- Discard suction canisters (and liners if used).
- Clean and disinfect bed.
- Clean electronic equipment (i.e., monitors) according to manufacturer's instructions.
- Damp mop floor in a 1 to 1.3 metre (3 to 4 feet) perimeter around the bed (larger area if contamination present); use a separate mop head per case.
- Insert new waste liner bags.
- Damp-dust equipment from other areas such as X-ray machines and compressed gas tanks before being brought into the operating room and prior to leaving.
- When cleaning is complete, remove gloves and clean hands.
- Place a cautionary "Wet Floor" sign at the entrance to the room.
- Remove gloves and clean hands.

Notes:

This tool is adapted from: Operating Room Nurses Association of Canada (ORNAC). Section 2: Infection prevention and control. In: *The ORNAC Standards, Guidelines, and Position Statements for Perioperative Registered Nurses*. 13th ed. Kingston, ON: Operating Room Nurses Association of Canada; 2017.

Appendix 16: Sample Procedure for Discharge/Terminal Cleaning of Operating Room (End of Day)

- Prepare fresh hospital disinfectant solution according to manufacturer's instructions.
- Clean hands and put on gloves.
- Collect and remove waste.
- Collect and remove all soiled linen.
- Clean hands and change gloves.
- Clean and disinfect lights and ceiling-mounted tracks.
- Clean and disinfect all door handles, push plates, light switches and controls.
- Clean and disinfect telephones and computer keyboards.
- Spot-check walls for cleanliness.
- Clean and disinfect all exterior surfaces of machines and equipment (e.g., anaesthesia carts), allowing adequate drying time for the disinfectant before storage.
- Clean and disinfect all furniture including wheels/casters.
- Clean and disinfect exterior of cabinets and doors, especially around handles.
- Clean and disinfect all horizontal surfaces.
- Clean scrub sinks and surrounding walls.
- Mop floor, making sure the bed is moved and the floor is washed underneath; move all furniture to the centre of the room and continue cleaning the floor; follow the detergent and disinfectant manufacturers' instructions for dilution and contact time; use a fresh mop/mop head and fresh solution for each room.
- Replace all furniture and equipment to its proper location.
- Damp wipe waste receptacles, dry thoroughly and re-line.
- Report any needed repairs,
- Clean and store cleaning equipment.
- Place a cautionary "Wet Floor" sign at the entrance to the room.
- Remove gloves and clean hands.

Notes:

This tool is adapted from: Operating Room Nurses Association of Canada (ORNAC). Section 2: Infection prevention and control. In: *The ORNAC Standards, Guidelines, and Position Statements for Perioperative Registered Nurses*. 13th ed. Kingston, ON: Operating Room Nurses Association of Canada; 2017.

Appendix 17: Sample Cleaning Schedule for Medical Device Reprocessing Departments and Other Sterile Storage Areas

Sterile Processing Areas:

- Clean all counters and floors daily.
- Clean shelves daily in sterilization areas, preparation and packing areas and decontamination areas.
- Clean shelves every three months in sterile storage areas.
- Clean case carts after every use.
- Clean walls every six months.
- Clean light fixtures, sprinkler heads and other fixtures every six months.

User Units/Clinics, Endoscopy Suites and Other Sterile Storage Areas:

- Clean counters and floors daily.
- Clean shelves monthly.
- Clean walls every six months.
- Clean light fixtures, sprinkler heads and other fixtures every six months.

Notes:

This tool is adapted from Canadian Standards Association, *Z314.3-09, Effective Sterilization in Health Care Facilities by the Steam Process*: Table 1, Cleaning Frequencies.

Appendix 18: Sample Routine Environmental Cleaning in the Clinical Laboratory (Levels One and Two)

Laboratory Staff

- Minimize storage of materials that are not pertinent to the work and cannot be easily decontaminated (e.g., journals, books, correspondence).
- Laboratory clothing must not be stored in contact with street clothing.
- Contaminated clothing must be decontaminated before laundering.
- Clean and decontaminate work surfaces with a hospital disinfectant at end of the day and after any spill of potentially biohazardous material.
- Replace or repair work surfaces that have become permeable (i.e., cracked, chipped, loose) to biohazardous material.

Environmental Service Workers

- Remove waste, including biomedical waste and filled sharps containers.
- Replace soap, paper towels, alcohol-based hand rub as required.
- Clean hand washing sinks.
- Mop floors.
- Clean eyewash stations, lights, tops of shelves, desks, file cabinets, chairs, baseboards, radiators, telephones weekly.

Notes:

This tool is adapted from Public Health Agency of Canada's *Laboratory Biosafety Guidelines, 2004* and the Ontario Health-Care Housekeepers' Association Inc. *Cleaning Standards for Health Care Facilities, 2008*.

Appendix 19: Sample Routine Environmental Cleaning in the Hemodialysis Unit

Nursing Staff

- Take only what is required for a patient's treatment into the hemodialysis station; minimize materials that cannot be easily decontaminated (e.g., patient chart).
- Dedicate equipment to individual patients whenever possible.
- Clean and disinfect equipment before returning it to a common clean area or for use on another patient (e.g., scissors, stethoscopes, blood pressure cuffs, electronic thermometers).
- Dispose of unused medications or supplies (e.g., syringes, alcohol swabs, tape) after each treatment.

Environmental Service Workers—after each hemodialysis treatment or procedure

- **Allow sufficient time between patients for adequate cleaning.**
- Remove waste, including biomedical waste and filled sharps containers.
- Replace soap, paper towels, alcohol-based hand rub as required.
- Clean surfaces at the dialysis station, including the bed or chair, countertops, tables and external surfaces of the dialysis machine (including waste containers) with a hospital disinfectant, allowing sufficient contact time with the disinfectant.
- Clean spills of blood as described in Appendix 23.

Environmental Service Workers – at end of day

- Clean remainder of the hemodialysis facility using a health care clean regimen (see Components of Health Care Clean).
- Clean hand washing sinks.
- Mop floors.

Scheduled Cleaning

- Weekly clean eyewash stations, lights, tops of shelves, desks, file cabinets, chairs, baseboards, radiators, telephones weekly.
- Weekly deep cleaning of equipment and furnishings.

Notes:

This tool is adapted from Recommendations for Preventing Transmission of Infections Among Chronic Hemodialysis Patients, *MMWR* April 27, 2001/50(RR05):p.17-22.

Appendix 20: Sample Routine Environmental Cleaning of Isolettes

Nursing Staff

- Detach medical gas lines and other external equipment from the isolette.
- Remove medical equipment from inside the isolette and disinfect or send for reprocessing.

Environmental Service Workers

DO NOT USE PHENOLIC DISINFECTANTS

- Check for items in the isolette, including sharps.
- Remove all items from inside the isolette.
- Remove grommets and door rings; clean and disinfect for required contact time.
- Remove tape from glass with alcohol, then wash off.
- Clean and disinfect glass.
- Detach all removable parts from inside of isolette, clean and disinfect, allowing sufficient contact time with the disinfectant.
- Clean outside of isolette completely, including wheels.
- Re-wash glass with a clean cloth dampened with water to remove any residue from disinfectant.
- Replace pieces of isolette.
- Cover isolette with a baby blanket, and indicate cleaning date.

Scheduled Cleaning

- Change filters every three months (or according to manufacturer's recommendations), when wet or if infant was on Contact Precautions.
- Humidity trays are reprocessed in central processing (CPS/SPD) after use.

Notes:

This tool is adapted from Kingston General Hospital's Environmental Services Department, *Isolette Cleaning*, revised January 2009.

Appendix 21: Risk Stratification Matrix to Determine Frequency of Cleaning

For each client/patient/resident area or department:

Step 1: Categorize the factors that will impact on environmental cleaning:

Probability of Contamination with Pathogens

Heavy Contamination (score = 3)

An area is designated as being heavily contaminated if surfaces and/or equipment are routinely exposed to copious amounts of fresh blood or other body fluids (e.g., birthing suite, autopsy suite, cardiac catheterization laboratory, hemodialysis station, Emergency room, client/patient/resident bathroom if visibly soiled).

Moderate Contamination (score = 2)

An area is designated as being moderately contaminated if surfaces and/or equipment does not routinely (but may) become contaminated with blood or other body fluids and the contaminated substances are contained or removed (e.g., wet sheets). All client/patient/resident rooms and bathrooms should be considered to be, at a minimum, moderately contaminated.

Light Contamination (score = 1)

An area is designated as being lightly contaminated if surfaces are not exposed to blood, other body fluids or items that have come into contact with blood or body fluids (e.g., lounges, libraries, offices).

Vulnerability of Population to Environmental Infection

More Susceptible (score = 1)

Susceptible clients/patients/residents are those who are most susceptible to infection due to their medical condition or lack of immunity. These include those who are immunocompromised (oncology, transplant and chemotherapy units), neonates (level 2 and 3 nurseries) and those who have severe burns (i.e., requiring care in a burn unit).

Less Susceptible (score = 0)

For the purpose of risk stratification for cleaning, all other individuals and areas are classified as less susceptible.

Potential for Exposure

High-touch surfaces (score = 3)

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

Low-touch surfaces (score = 1)

Low-touch surfaces are those that have minimal contact with hands. Examples include walls, ceilings, mirrors and window sills.

Step 2: Determine the Total Risk Stratification Score:

For each functional area or department, the frequency of cleaning is based on the factors listed in the boxes above. A score is given if the factors are present, and the frequency of cleaning is based on the total score as derived in the following matrix:

Table 12: Risk Stratification Scores for High-Touch Surfaces (Score for Potential for Exposure = 3)

Probability of contamination with pathogens	More susceptible population (score = 1)	Less susceptible population (score = 0)
Heavy (score = 3)	7 (3+3+1)	6 (3+3+0)
Moderate (score = 2)	6 (3+2+1)	5 (3+2+0)
Light (score = 1)	5 (3+1+1)	4 (3+1+0)

Table 13: Risk Stratification Scores for Low-Touch Surfaces (Score for Potential for Exposure = 1)

Probability of contamination with pathogens	More susceptible population (score = 1)	Less susceptible population (score = 0)
Heavy (score = 3)	5 (1+3+1)	4 (1+3+0)
Moderate (score = 2)	4 (1+2+1)	3 (1+2+0)
Light (score = 1)	3 (1+1+1)	2 (1+1+0)

STEP 3: Determine the cleaning frequency based on the risk stratification matrix:

Cleaning frequencies for each functional area or department are derived from the total score that results from the risk stratification matrix above:

Table 14: Cleaning Frequencies Based on Total Risk Score

Total Risk Score	Risk Type	Minimum Cleaning Frequency
7	High Risk	Clean after each case/event/procedure and at least twice per day Clean additionally as required
4-6	Moderate Risk	Clean at least once daily Clean additionally as required (e.g., gross soiling)
2-3	Low Risk	Clean according to a fixed schedule Clean additionally as required (e.g., gross soiling)

Table 15: Examples Using the Risk Stratification Matrix to Determine the Cleaning Frequency of Specific Areas

Location	Probability of Contamination: Light = 1 Moderate = 2 Heavy = 3	Potential for Exposure: High-touch = 3 Low-touch = 1	Population: Less susceptible = 0 More susceptible = 1	Total Score	Interpretation
Admission/discharge units	1	1	0	2	Clean according to a fixed schedule Clean additionally as required
Autopsy/morgue	3	3	0	6	Clean at least once daily Clean additionally as required
Burn unit	2	3	1	6	Clean at least once daily Clean additionally as required
Cardiac catheterization and angiodynography area	3	3	1	7	Clean after each case/event/procedure and at least twice per day Clean additionally as required
Chemotherapy unit	2	3	1	6	Clean at least once daily Clean additionally as required
Clean linen handling and storage area	1	1	0	2	Clean according to a fixed schedule Clean additionally as required
Cystoscopy	3	3	0	6	Clean at least once daily Clean additionally as

Location	Probability of Contamination: Light = 1 Moderate = 2 Heavy = 3	Potential for Exposure: High-touch = 3 Low-touch = 1	Population: Less susceptible = 0 More susceptible = 1	Total Score	Interpretation
					required
Cystoscopy	3	3	1	7	Clean after each case/event/procedure and at least twice per day Clean additionally as required
Dental procedure room	3	3	0	6	Clean at least once daily Clean additionally as required
Dental procedure room	3	3	1	7	Clean after each case/event/procedure and at least twice per day Clean additionally as required
Diagnostic imaging	1	1	0 or 1	2 or 3	Clean according to a fixed schedule Clean additionally as required
Dining room/cafeteria and food preparation areas	1	3	0	4	Clean at least once daily Clean additionally as required
Echocardiography	1	1	0 or 1	2 or 3	Clean according to a fixed schedule Clean additionally as required
Emergency room: patient cubicle	2	3	0 or 1	5 or 6	Clean at least once daily Clean additionally as required
Emergency room: patient cubicle	3	3	0	6	Clean at least once daily Clean additionally as required
Emergency room: patient cubicle	3	3	1	7	Clean after each case/event/procedure and at least twice per day Clean additionally as required
Emergency room: trauma room	3	3	1	7	Clean after each case/event/procedure and at least twice per day Clean additionally as

Location	Probability of Contamination: Light = 1 Moderate = 2 Heavy = 3	Potential for Exposure: High-touch = 3 Low-touch = 1	Population: Less susceptible = 0 More susceptible = 1	Total Score	Interpretation
					required
Emergency room: other emergency areas	1	3	0	4	Clean at least once daily Clean additionally as required
Equipment reprocessing area (CPS/SPD)	3	3	0	6	Clean at least once daily Clean additionally as required
Hemodialysis: dialysis station	3	3	1	7	Clean after each case/event/procedure and at least twice per day Clean additionally as required
Hemodialysis: other dialysis areas	2	3	0	5	Clean at least once daily Clean additionally as required
Intensive care unit	3	3	1	7	Clean after each case/event/procedure and at least twice per day Clean additionally as required
Laboratory	3	3	0	6	Clean at least once daily Clean additionally as required
Labour and birthing rooms	3	3	1	7	Clean after each case/event/procedure and at least twice per day Clean additionally as required
Laundry: soiled linen	3	3	0	6	Clean at least once daily Clean additionally as required
Nuclear medicine	1	1	0 or 1	2 or 3	Clean according to a fixed schedule Clean additionally as required
Nursery (well baby)	1	1	0	2	Clean according to a fixed schedule Clean additionally as required
Occupational	1	3	0	4	Clean at least once daily

Location	Probability of Contamination: Light = 1 Moderate = 2 Heavy = 3	Potential for Exposure: High-touch = 3 Low-touch = 1	Population: Less susceptible = 0 More susceptible = 1	Total Score	Interpretation
therapy					Clean additionally as required
Offices	1	1	0	2	Clean according to a fixed schedule Clean additionally as required
On call rooms	1	1	0	2	Clean according to a fixed schedule Clean additionally as required
Operating room suite	3	3	1	7	Clean after each case/event/procedure and at least twice per day Clean additionally as required
Pacemaker insertion room	3	3	0	6	Clean at least once daily Clean additionally as required
Pacemaker insertion room	3	3	1	7	Clean after each case/event/procedure and at least twice per day Clean additionally as required
Patient/resident room	2	3	0 or 1	5 or 6	Clean at least once daily Clean additionally as required
Pharmacy: admixture room	1	3	1	5	Clean at least once daily Clean additionally as required
Pharmacy: general purpose area	1	3	0	4	Clean at least once daily Clean additionally as required
Physical plant workshops	1	3	0	4	Clean at least once daily Clean additionally as required
Physiotherapy	1	3	0	4	Clean at least once daily Clean additionally as required
Procedure room	3	3	0	6	Clean at least once daily Clean additionally as

Location	Probability of Contamination: Light = 1 Moderate = 2 Heavy = 3	Potential for Exposure: High-touch = 3 Low-touch = 1	Population: Less susceptible = 0 More susceptible = 1	Total Score	Interpretation
					required
Procedure room	3	3	1	7	Clean after each case/event/procedure and at least twice per day Clean additionally as required
Public areas: corridors, elevators, stairwells, lobbies, libraries, meeting rooms, locker rooms	1	1	0	2	Clean according to a fixed schedule Clean additionally as required
Resident activity room (long-term care home)	2	3	0 or 1	5 or 6	Clean at least once daily Clean additionally as required
Respiratory therapy	3	3	0	6	Clean at least once daily Clean additionally as required
Respiratory therapy	3	3	1	7	Clean after each case/event/procedure and at least twice per day Clean additionally as required
Sterile supply area	1	1	0	2	Clean according to a fixed schedule Clean additionally as required
Transplant unit	2	3	1	6	Clean at least once daily Clean additionally as required

Appendix 22: Sample Environmental Cleaning Checklists

The use of checklists by staff when cleaning areas that require Hospital Clean will ensure that all steps have been followed and allow for self-assessment and improvement. All of the steps involved in the cleaning process should be included in the checklist.

Cleaning checklist #1 is a sample checklist for routine daily cleaning for a patient/resident room. The items in this list are compatible with the procedure listed in Appendix 4.

Cleaning checklist #2 is a sample checklist for discharge/transfer cleaning for a patient/resident room contaminated with VRE. The items in this list are compatible with the procedures listed in Appendix 4 and Appendix 6.

Checklist #1: Daily Routine Cleaning of a Patient/Resident Room:

- ☐ Check for Additional Precautions signs and follow the precautions indicated.
- ☐ Walk through room to determine what needs to be replaced.
- ☐ Ensure an adequate supply of clean cloths is available.
- ☐ Prepare fresh disinfectant solution according to manufacturer's instructions.
- ☐ Clean hands using alcohol-based hand rub and put on gloves.
- ☐ Clean doors, door handles, push plate and touched areas of frame.
- ☐ Check walls for visible soiling and clean if required.
- ☐ Clean light switches and thermostats.
- ☐ Clean wall mounted items such as alcohol-based hand rub dispenser, glove box holder.
- ☐ Check and remove fingerprints and soil from interior glass partitions, glass door panels, mirrors and windows with glass cleaner.
- ☐ Check privacy curtains for visible soiling and replace if required.
- ☐ Clean all furnishings and horizontal surfaces in the room including:
    - ☐ chairs
    - ☐ window sill
    - ☐ television and cords
    - ☐ telephone
    - ☐ computer keypads
    - ☐ night table and other tables or desks
- ☐ Wipe equipment on walls such as top of suction bottle, intercom and blood pressure manometer as well as IV pole.
- ☐ Clean bedrails, bed controls and call bell, including cord.
- ☐ Clean bathroom/shower (see Appendix 5).
- ☐ Clean floors (see Appendix 9, Appendix 10, Appendix 11 for floor cleaning procedure).
- ☐ Place soiled cloths in designated container for laundering.
- ☐ Check sharps container and change when ¾ full (do not dust the top of a sharps container).
- ☐ Remove soiled linen if bag is full.
- ☐ Place obvious waste in receptacles.
- ☐ Remove waste.
- ☐ Remove gloves and clean hands.
- ☐ Replenish supplies as required (e.g., toilet paper, paper towel, soap, alcohol-based hand rub, gloves).
- ☐ Replace privacy curtains.
- ☐ Clean hands with alcohol-based hand rub on leaving the room

Checklist #2: Discharge/Transfer Cleaning of Contact Precautions Room for *C. difficile* and VRE

- ☐ Use a fresh bucket, cloth(s), mop head. Use each cloth one time only. **DO NOT RE-USE CLOTHS**.
- ☐ Prepare fresh disinfectant according to manufacturer's instructions. For *C. difficile*, use a sporicidal agent; for VRE, use a low-level hard surface disinfectant.
- ☐ Clean hands using alcohol-based hand rub and put on gloves.
- ☐ Remove all dirty/used items (e.g., suction container, disposable items).
- ☐ Remove curtains (privacy, window, shower).
- ☐ Remove dirty linen (sheets, towels); roll sheets carefully to prevent aerosols.
- ☐ Discard soap, toilet paper, paper towels, glove box.
- ☐ **Discard gloves, clean hands and apply clean gloves**.
- ☐ Clean and disinfect all surfaces and allow for the appropriate contact time with the disinfectant:
    - ☐ doors, door handles, push plate and touched areas of frame
    - ☐ walls, if visibly soiled; remove tape from walls
    - ☐ light switches and thermostats
    - ☐ wall mounted items:
        - ☐ alcohol-based hand rub dispenser
        - ☐ soap dispenser
        - ☐ glove box holder
        - ☐ top of suction bottle
        - ☐ sharps container (sides and bottom)
        - ☐ blood pressure manometer (including cuff)
    - ☐ low level interior glass partitions, glass door panels, mirrors and windows
    - ☐ chairs
    - ☐ tables (bedside table, over bed table, desks)
    - ☐ window sill
    - ☐ television, including cords and remote control
    - ☐ telephone
    - ☐ computer keyboards
    - ☐ light cord
    - ☐ toys, electronic games (pediatrics)
    - ☐ wheelchair, walker
    - ☐ monitors
    - ☐ IV pole and pump
    - ☐ inside and outside of patient/resident cupboard or locker and inside drawers
    - ☐ commode

- ☐ Clean bed:
  - ☐ Check for cracks or holes in mattress and have mattress replaced as required
  - ☐ Clean the following, allowing for the appropriate contact time with the disinfectant:
    - ☐ top and sides of mattress, turn over and clean underside
    - ☐ exposed bed springs and frame, including casters
    - ☐ headboard and foot board
    - ☐ bed rails, including underside of rail
    - ☐ call bell and cord
    - ☐ bed controls
  - ☐ allow mattress to dry
- ☐ Clean bathroom/shower (**see bathroom cleaning procedure**).
  - ☐ discard toilet brush
- ☐ Clean floor (see Appendix 9, Appendix 10, Appendix 11 for floor cleaning procedure).
- ☐ Disposal:
  - ☐ remove and replace sharps container if ¾ full
  - ☐ remove soiled linen bag
  - ☐ remove waste
- ☐ **Remove gloves and clean hands**.
  - ☐ Remake bed
  - ☐ Replace curtains
  - ☐ Replenish supplies:
    - ☐ soap
    - ☐ toilet paper
    - ☐ paper towels
    - ☐ glove box
    - ☐ toilet brush
- ☐ Return cleaned equipment (e.g., IV poles and pumps, walkers, commodes) to clean storage room.

Appendix 23: Sample Procedure for Cleaning a Biological Spill

- Assemble materials required for dealing with the spill prior to putting on personal protective equipment.
- Inspect the area around the spill thoroughly for splatters or splashes.
- Restrict the activity around the spill until the area has been cleaned and disinfected and is completely dry.
- Put on gloves; if there is a possibility of splashing, wear a gown and facial protection (mask and eye protection or face shield).
- Confine and contain the spill; wipe up any blood or body fluid spills immediately using either disposable towels or a product designed for this purpose. Dispose of materials by placing them into regular waste receptacle, unless the soiled materials are so wet that blood can be squeezed out of them, in which case they must be segregated into the biomedical waste container (i.e., yellow bag).
- Disinfect the entire spill area with a hospital disinfectant and allow it to stand for the amount of time recommended by the manufacturer.
- Wipe up the area again using disposable towels and discard into regular waste.
- Care must be taken to avoid splashing or generating aerosols during the cleanup.
- Remove gloves and perform hand hygiene.

Notes:

This tool is adapted from Health Canada's *Hand Washing, Cleaning, Disinfection and Sterilization in Health Care*, 1998 (p. 32) and Fallis, P. *Infection prevention and control in office-based health care and allied systems,* 2004.

Appendix 24: Sample Procedure for Cleaning a Biological Spill on Carpet

- Assemble materials required for dealing with the spill prior to putting on personal protective equipment.
- Restrict the activity around the spill until the area has been cleaned and disinfected and is completely dry.
- Put on gloves; if there is a possibility of splashing, wear a gown and facial protection (mask and eye protection or face shield).
- Mop up as much of the spill as possible using disposable towels.
- Disinfect the entire spill area with a hospital disinfectant and allow it to stand for the amount of time recommended by the manufacturer.
- Safely dispose of the cleanup materials and gloves by placing them in the waste receptacle, unless the soiled materials are so wet that blood can be squeezed out of them, in which case they must be segregated into the biomedical waste container (i.e., yellow bag).
- Remove gloves and perform hand hygiene.
- Carpeting should be removed, discarded, and not replaced by a new carpet (preferred) or cleaned with an industrial carpet cleaner as soon as possible.

NOTE: Carpeting must not be used in areas where spills of blood or other body substances may be anticipated (e.g., procedure rooms, intensive care units).

If sodium hypochlorite (bleach) is used to disinfect an area after a spill, follow the dilution ratios below:

- For a minor blood spill, use a bleach solution with 500 ppm free available chlorine:
  - Add 1 part of bleach (5.25%) to 99 parts of water to achieve a concentration of 500 ppm.[3,92]
- For a major blood spill, use a bleach solution with 5000 ppm free available chlorine:
  - Add 1 part of bleach (5.25%) to 9 parts of water to achieve a concentration of 5000 ppm.[3,92]

Notes:

This tool is adapted from Department of Health, New South Wales. *Cleaning Service Standards, Guidelines and Policy for NSW Health Facilities*. 1996.

Appendix 25: Sample Procedure for Infection Prevention and Control in the Event of a Flood or Water Activity

- Assess patient, visitor and staff safety; evacuate the area if required.
- Protect potentially affected equipment with plastic sheeting or move if possible.
- Contain the flood or leak if possible.
- In long-term care homes, report the incident to the facility manager.
- Disinfect surfaces of equipment and furniture before moving it from the affected area.
- Notify Infection Prevention and Control to assess the risk of contamination:
  - If water is contaminated with faecal material, the infection prevention and control professional will determine the need for personal protective equipment, hoarding, negative/positive pressure requirements, etc.
  - Infection prevention and control professional and occupational health and safety may be consulted regarding staff and patient safety.
  - Infection prevention and control professional will arrange for ongoing patient surveillance dependent on the patient population affected by the flood.
  - Infection prevention and control professional will recommend relocation of patients if required dependent on patient population.
- Following containment:
  - Discard all contaminated single-use sterile supplies.
  - Send contaminated reusable sterile supplies to be reprocessed.
  - Remove and discard contaminated carpeting.
  - Assess furniture and equipment to determine if it can be salvaged.
  - Assess building materials (e.g., ceiling tiles, drywall) and remove if required.
- Clean and sanitize the area. There must be proactive management of potential mould. Infection prevention and control professional to provide direction to remediation company.

Adapted from Sunnybrook Health Sciences Centre's Emergency Response Plan Manual (last revised November 5, 2010.)

Appendix 26: Safe Disposal of Sharps

To remove a needle and syringe that has been disposed of incorrectly:

- Put on a pair of gloves.
- Ideally, take a sharps container to the needle and syringe.
- NEVER re-cap a needle and syringe even if a cap is available.
- Use tongs, or puncture-resistant gloves, to pick up the needle and syringe.
- Carefully place the needle and syringe in the sharps container.
- Report the incident to your supervisor or manager.