

Environmental Services and Enteric Outbreak Management



Region of Waterloo
PUBLIC HEALTH AND
EMERGENCY SERVICES

In an enteric outbreak situation, your health care staff and environmental services staff are crucial members of an effective infection control team. Cleaning and disinfection will remove/reduce micro-organisms that survive in the environment and may contaminate hands. For example, Norovirus can survive for at least 12 days on surfaces unless killed by high level disinfectants¹. Consequently, thorough cleaning and disinfection of surfaces and equipment is critical to stop the spread of both viruses (Norwalk and Rotavirus) and bacteria (*Clostridium difficile*).

Staff guidelines

- Practice good hand hygiene. Perform hand hygiene before commencing work, anytime hands become contaminated and before leaving work.
- Stay at home if experiencing vomiting, diarrhea or fever. Report your symptoms, to your supervisor including the time symptoms began and ended.
- Do not consume food or beverages while performing cleaning duties as you increase your risk of becoming ill.
- Change into a clean work uniform every day. This will minimize the germs you bring into the facility from the community.
- Change your work uniform immediately if it becomes contaminated with feces, vomit or body fluid. This will minimize the spread of germs as you move through the facility.
- Change out of your work uniform before leaving at the end of your shift. This will minimize the germs you take out of the facility into the community and your home.

Personal Protective Equipment (PPE)

- Look for PPE signage at the entrance to every resident room (e.g. additional precaution signage).
- Put on the required PPE before entering the resident room.
 - Disposable gloves are best. If heavy duty gloves are used, then clean and disinfect these gloves after each use.
- Treat all body fluids as if they might be infectious. Wear disposable gloves, mask and gown when cleaning up vomit or diarrhea.
 - Gloves will provide a protective barrier against infection and reduce contamination of hands
 - Gowns will protect your work uniform from contamination
 - Masks will trap large infectious particles expelled with vomit
- Remove PPE before leaving the resident room. Perform hand hygiene immediately after removing PPE. Wearing gloves is NOT a substitute for hand hygiene

Cleaning and disinfection products

- Use the dilution and contact time recommended by the manufacturer for cleaners and disinfectants.
- Check the disinfectant concentration with an appropriate test strip or test reagent to ensure requirements are met.
- Avoid aerosol or trigger sprays for application of cleaning chemicals. Liquids may bounce off surfaces and cause eye injury or trigger respiratory problems. A double bucket system is recommended.
- Many disposable wipes do not deliver sufficient disinfectant to achieve the required contact time. Verify the achievable contact time before utilizing wipes.

Cleaning and disinfection

- Allow sufficient time for staff to clean and disinfect resident rooms, particularly if contact/additional precautions are required.
- The key to cleaning is “elbow grease”; use a lot of friction to remove dirt!
- **Clean surfaces before using a disinfectant. The presence of organic material reduces the effectiveness of the disinfectant.**
- If a bucket is used, do not double-dip cloth(s). Use a clean cloth saturated in disinfectant, apply disinfectant to the surface and discard/laundry cloth.
- Clean up body fluids/ organic material (i.e. blood, feces, vomit, etc.) and the surrounding areas promptly. Viruses contained in vomit or feces may splatter onto the surrounding surfaces.
- Increase ward/unit level cleaning to twice daily to maintain cleanliness, with high touch surfaces (HTS) cleaned and disinfected three times daily.
 - HTS are surfaces that are handled by many people. HTS include door knobs, light switches, bed/handrails, carts, keyboards and surfaces in common areas. Routinely clean and disinfect all resident care areas, including nursing stations, procedure rooms, tub rooms, diagnostic and treatment areas
- Clean rooms of ill residents last.
- Clean each room from high to low areas and least soiled to most soiled areas. This avoids transferring bacteria from one area to another. For example, clean the furniture before the floors in the bedroom area, then clean the bathroom.

- Clean and disinfect soiled mattress covers before applying clean sheets.
- Change privacy curtains when they are visibly soiled and at the end of the outbreak.
- Increase the frequency of bathroom and toilet cleaning and disinfection in the outbreak areas. Feces contaminate the toilet bowl and aerosols containing microbes are released during flushing and contaminate bathroom surfaces 6 to 9 feet out and up (Gerba et al, 1975).
- Change mop head and disinfect bucket when a new bucket of cleaning solution is prepared and at the end of the day. Change mop head and disinfect bucket after cleaning large spills of vomit or fecal material.

Laundry

- Wear gloves and gown when handling soiled laundry.
- Wash hands thoroughly after removing gloves and gown.
- Minimize direct handling and agitation of soiled laundry to prevent contamination of the environment.
- Bag laundry at the point of use. Collection bags should be processed in the same manner as their contents. Do not spray or rinse heavily soiled laundry.
- Remove soiled linen from resident areas as soon as possible to prevent potential contamination of environment and to minimize odours.
- Ensure soiled and clean linen are clearly kept separate.

Medical equipment

- Dedicate medical equipment to each resident if possible. If not possible, dedicate medical equipment to the outbreak area (e.g. glucometer, BP cuff).
- Ensure all staff knows who is responsible for cleaning and disinfecting each piece of medical equipment.
- Shared equipment must be cleaned and disinfected between each use, including transport equipment.

Housekeeping carts and equipment

- Dedicate a housekeeping cart to each outbreak area.
- Disinfect cart daily to reduce bioburden.
- Do not store personal items on cart (e.g. water bottle, phones)
- Ensure all items on the cart are cleanable.
- Clearly separate clean and soiled items on the cart.
- Use disposable toilet cleaning equipment or dedicate a toilet brush to each toilet. This will minimize the spread of microbes to surfaces during transport and other resident rooms when re-used.
- Store all cleaning equipment in the designated room or closet on the outbreak unit. Do not store cleaning equipment at the nurse station, in hallways or other multi-use areas where cross contamination may occur.

Furnishing and flooring

- Steam clean soiled carpet and soft furnishings using specialized cleaning equipment and procedures. Remove soiled furnishings from use until cleaned.
- Launder soiled cloth furniture covers.
- Use cleaning methods that do not produce dust (e.g. use damp cloth to dust instead of a feather duster, damp mop floors instead of sweeping, fit dry vacuum with high-efficiency filters/water traps). Microbes attach to dust and can become airborne when disturbed.

Waste collection and removal

- Wear gloves and gowns where appropriate.
- Practice proper hand washing procedures.
- Place contaminated materials in waste disposal bags or containers.
- Dispose of incontinent products in a timely manner.
- Store waste in a location that is inaccessible to residents and visitors.

References

- ¹ *Best Practices for Environmental Cleaning for Prevention and Control of Infections in All Health Care Settings*, Public Health Ontario, available online at <https://www.publichealthontario.ca/-/media/documents/bp-environmental-cleaning.pdf?la=en>
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- Provincial Infectious Diseases Advisory Committee (PIDAC), 2018. *Best Practices for Environmental Cleaning for Prevention and Control of Infections in All Health Care Settings*, 3rd Edition Public Health Ontario, Provincial Infectious Diseases Advisory Committee, 2018
- Provincial Infectious Diseases Advisory Committee (PIDAC), 2019. *Routine Practices and Additional Precautions In All Health Care Settings*, 3rd edition. Available online at: <https://www.publichealthontario.ca/en/health-topics/infection-prevention-control/best-practices-ipac>

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