

PIDAC Best Practices for Environmental Cleaning: Overview of Third Edition

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ICE Day-Leeds, Grenville and Lanark Health Unit-Smith
Falls

PHO Infection Prevention And Control mandate

Public Health Ontario (PHO) will be a leader in infection prevention and control by generating relevant Infection Prevention and Control (IPAC) knowledge, creating practical tools, and providing regional support to effectively change practice in Ontario's health care settings.

Regional Support

Provide support and consultation for stakeholders

- Answer inquiries
- Workshops and targeted education sessions
- Communities of practice, working groups, networks
- Introduction and dissemination of new resources
- Supporting implementation of IPAC best practices/IPAC programs (i.e. UTI program)

Regional Support Team- East

- **Regional IPAC Specialists**
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For New Infection Control Professionals

Public
Health
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Ontario

An Introduction to Key Resources for Your IPAC Program

IPAC Essentials

Register
Now!



ASP in LTC Resources

Antimicrobial Stewardship Essentials in LTC	Shorter is Smarter
<ul style="list-style-type: none">• Primer• Checklist <p>Resources to guide and help LTCHs interested in starting an ASP.</p>	<ul style="list-style-type: none">• Infographic• Fact sheet• 3 evidence briefs <p>Resources to encourage shorter durations of antibiotic therapy in LTC.</p>

What is the problem?

50%

of antibiotic courses
are unnecessary¹

78% 

of residents receive at least one
antibiotic course each year²

How are antibiotics overused?

There is variability in prescribing:



10x



Duration of therapy
is often longer than
necessary²

Homes with the highest use are using 10x more
antibiotics than homes with the lowest use

Prescriber preference is the key reason for
differences - not resident characteristics²

Why is this important?

Residents in homes with higher antibiotic use
experience more harm:

24% increased risk of *Clostridium difficile* infection, diarrhea, allergic reactions
and antibiotic-resistant organisms³



Antibiotic overuse
in Ontario's long-term care homes

Overview of Recommendations

- 21 new in 2018
- 85 modified from 2012
 - 57 strengthened
 - 14 elaborated
 - 14 adjusted
- 37 same as 2012
- 21 removed from 2012



Major

MUST KNOW!

- 1.2.1.3 Privacy Curtains
- 1.2.1.4 Carpeting
- 1.2.2.3 Electronic Equipment
- 1.3.2.3 Disinfectant Wipes
- 1.3.3 Microfibre
- 5 Occupational Health and Safety
- 8.2 New Technologies
- 9.1 Approaches used to Monitor Cleaning
- 10.2.4.9 Hand Washing Sinks
- 11. 1 Cleaning Rooms/Cubicles/
Bed Space on Contact Precautions

1.2.1.3 Cloth and Soft Furnishings in Health Care Settings



Privacy Curtains

- Must be removed, cleaned and disinfected :
 - immediately if they become contaminated with blood or body fluids, or are visibly soiled
 - following discharge or transfer of the p/r (RP or Additional Precautions) and before a new p/r is admitted to that room or bed space
- For p/r with extended stays, health care facilities should consider changing privacy curtains regularly (e.g., monthly)

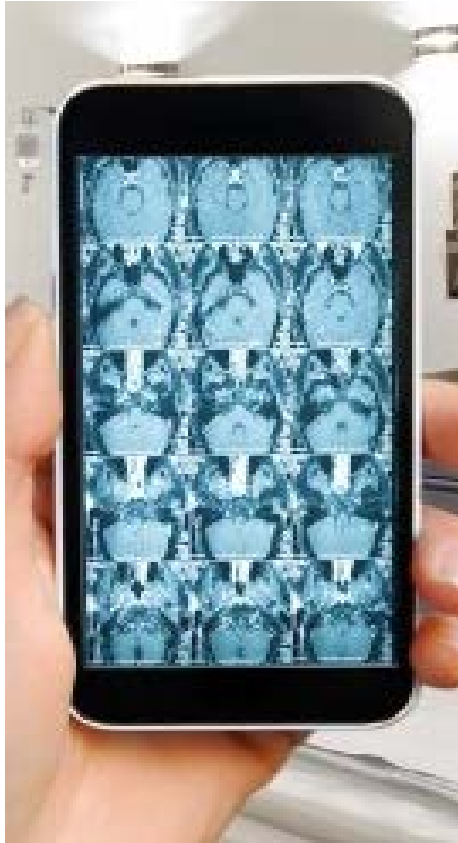
Best Practices for Environmental Cleaning for Infection Prevention and Control, April 2018, pages 22-23

1.2.1.4 Carpeting

- Shall not be used in areas that house immunocompromised patients at risk of invasive fungal infections (e.g., transplantation units, high risk oncology units)
- Must not be used in any care area within health care facilities
- Plan to remove carpets with high risk areas and older carpets prioritized
- Dry wet carpets as soon as possible; any carpets remaining wet after 48 hours shall be removed

Best Practices for Environmental Cleaning for Infection Prevention and Control, April 2018, pages 23-24

1.2.2.3 Electronic Equipment



Electronic Equipment

- *“Electronic equipment that cannot be cleaned and disinfected must not be purchased, installed or used in health care settings.”*
- *“Plastic coverings may be an effective means to protect keyboards and other devices from contamination, but must be cleaned and maintained appropriately.”*
- *“Electronic equipment used in care areas must be cleaned and disinfected with the same frequency as non-electronic equipment.”*

Best Practices for Environmental Cleaning for Infection Prevention and Control, April 2018, pages 25-26

10.2.4 Emphasis on cleanability of surfaces and materials:

- **Electronic Equipment:** *“If you cannot clean or cover an electronic item, do not bring it into the care environment.”*
- **Cloth Furnishings:** Cloth furnishings are discouraged in patient care areas
- **Hydrotherapy Equipment:** When replacing or purchasing hydrotherapy equipment, consider designs with improved cleanability and that are meant for use in the health care setting
- **Transport equipment** such as wheelchairs that may have padded areas should be carefully inspected for damage prior to cleaning. Damaged parts that cannot be adequately cleaned should be removed and replaced

1.3.2.3 Disinfectant Wipes

“Facilities may select either a cloth with disinfectant or large, pre-prepared wipes for use by environmental services to clean surfaces and equipment.”

Best Practices for Environmental Cleaning for Infection Prevention and Control, April 2018, page 31

1.3.3 Microfibre and Ultramicrofibre Cleaning Products

- *“Performance varies; do not always decontaminate environmental surfaces better than cloths of other materials.”*
- *“Potential to spread microorganisms varies.”*
- *“Use of QUATs not always contraindicated; follow manufacturers’ instructions.”*
- Recommend using disinfectants even if products claim only water is needed

Best Practices for Environmental Cleaning for Infection Prevention and Control, April 2018, pages 32-33

5. Occupational Health and Safety Issues Related to Environmental Services

5.1 Immunization: ES workers must be offered appropriate immunizations for healthcare workers (including contracted workers)

5.4 Work Restrictions: must establish clear expectation that workers do not come into work sick and may be subject to work restrictions if ill

5.5.1 Chemical Safety:

- Administrative controls (e.g., development and maintenance of policies for the safe use of disinfectants, education and training)
- Periodic occupational hazards assessment added
- The use of automated dispensing systems or ready-to-use products is preferred over manual dilution and mixing

Best Practices for Environmental Cleaning for Infection Prevention and Control, April 2018, page 57

8.2 New and Evolving Technologies

8.2.1. Antimicrobial surfaces: insufficient evidence to recommend for or against the use of copper surfaces or copper impregnated linens in the health care setting

8.2.2. No-touch disinfection systems: hydrogen peroxide vapour or mist; ultraviolet light-insufficient evidence to recommend for or against routine use

Best Practices for Environmental Cleaning for Infection Prevention and Control, April 2018, page 79

9. Assessment of Cleanliness and Quality Control

- *“There must be a process in place to measure the quality of cleaning in the health care setting.”*
- *“Results of cleaning audits should be used for the purposes of training and to provide positive and constructive feedback to frontline environmental service workers.”*
- *“Aggregate results must be presented to relevant stakeholders, e.g., ES leadership, IPAC, and administration.”*

Best Practices for Environmental Cleaning for Infection Prevention and Control, April 2018, pages 85-93

9.1 Overview of Approaches used to Monitor Cleaning and Cleanliness

- Observational Methods
 - Visual assessment of cleanliness; Performance Observations; Satisfaction Surveys
- Post Cleaning Testing of Surfaces
 - Environmental marking; ATP bioluminescence; environmental cultures
- Should use at least one measure that directly assesses cleaning, in addition to observational assessments

Best Practices for Environmental Cleaning for Infection Prevention and Control, April 2018, pages 85-93

10.2.4.9 Hand Washing Sinks



- Clean from the least contaminated to the most contaminated area with taps cleaned prior to the rest of the sink
- The water outlet should not be touched during cleaning
- Cloths used should not be used to clean another sink
- Not be used for disposing body fluids and other waste

Best Practices for Environmental Cleaning for Infection Prevention and Control, April 2018, pages 103-104

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.

Best Practices for Environmental Cleaning for Infection Prevention and Control, April 2018, page 139

11.1 Cleaning Rooms/Cubicles/Bed Space on Contact Precautions

11.1.1 Vancomycin-resistant enterococci

“Facilities may consider increasing the frequency of cleaning VRE room (e.g., twice a day) during VRE outbreaks or at facilities with ongoing, uncontrolled VRE transmission.”

Best Practices for Environmental Cleaning for Infection Prevention and Control, April 2018, page 108

11.1.2 Methicillin-resistant *Staphylococcus aureus*

“MRSA is not as persistent on dry surfaces as VRE or C. difficile. No special approach is required to clean and disinfect rooms that housed patients colonized or infected with MRSA beyond what is recommended for the rooms of all patients in contact precautions.”

Best Practices for Environmental Cleaning for Infection Prevention and Control, April 2018, page 109

11.1.3 *Clostridium difficile*

Removed:

- Double clean for Terminal/Discharge Clean (still need to do twice daily room and bathroom cleaning-p.109 of document)
- Table 5: Dilution of Household Bleach to Achieve Desired Chlorine Levels
- Contact times

Best Practices for Environmental Cleaning for Infection Prevention and Control, April 2018, page 109

11.1.5 Carbapenemase-producing *Enterobacteriaceae* (CPE)

“Health care facilities must have policies and procedures for the routine and discharge/transfer cleaning of rooms on Contact and Contact/Droplet Precautions, with specification of required cleaning and disinfection procedures for C. difficile, norovirus, VRE and CPE.”

Best Practices for Environmental Cleaning for Infection Prevention and Control, April 2018, page 110

Moderate

NEED TO KNOW!

- 1.3.2.1. Choosing a Disinfectant
- 3.1.1.1 Contracted Services
- 3.1.1.2 Staffing Levels
- 6.5 Flooding
- 7.1.2 Soiled Linen
- 7.1.3 Washing and Drying Laundry
- 7.1.5 Laundry Staff protection
- 7.2.2 Handling of Sharps
- + Aerosol or Trigger Sprays

1.3.2.1 Choosing a Disinfectant

“Health care facilities should select a limited number of hospital disinfectants to minimize training requirements and the risk of error.”



Best Practices for Environmental Cleaning for Infection Prevention and Control, April 2018, page 33

3.1.1.1 Contracted Services

“There should be clear expectations regarding cleaning frequency, adherence to cleaning standards, and the need for routine audit, feedback, and ongoing education to ensure consistent and effective cleaning occurs.”

Best Practices for Environmental Cleaning for Infection Prevention and Control, April 2018, page 43

3.1.1.2 Staffing Levels

Factors to Consider When Determining Environmental Service Staffing Level

▮ **facility type**

- Acute care facilities, long term care facilities and specialized facilities will all have specific environmental cleaning needs and requirements.
- Facilities with specialized areas (e.g., operating and procedure rooms, dialysis units, burn units, intensive care units) will require increased environmental cleaning resources.

▪ **building factors**

- Age, design and size of facility (larger and older buildings are harder to clean).
- Climate and season.
- Exposure of facility to outside dust and soil, e.g., construction site.
- Type of floors and walls.
- Presence of carpet and upholstered furniture.

▪ **occupancy factors**

- Occupancy rate and volume of cases.
- Patient/resident mix and type of care in the area (e.g., acute care, long-term care, clinic) vs. no care in the area (e.g., public area).
- Frequency of cleaning required in an area (e.g., once daily vs. after each case).
- Square metres to be cleaned in patient care areas.
- Square metres to be cleaned in nonpatient care areas.

Best Practices for Environmental Cleaning for Infection Prevention and Control, April 2018, pages 43-46

6.5 Environmental Cleaning Following Flooding

- *“In the event of a flood or other significant water leakage within a health care facility, regardless of the presumed source of the water, the area must be immediately assessed by infection prevention and control to determine the risk of contamination.”*
- *“Wet carpets, if present, must be dried completely within 48 hours as the risk of mould growth increases substantially after that point. If moisture persists beyond 48 hours, carpeting in a care area must be removed and should not be replaced with carpeting.”*

Best Practices for Environmental Cleaning for Infection Prevention and Control, April 2018, pages 65-66

7.1.2 Soiled Linen

- *“Laundry chutes should not be used. If their use is unavoidable, ensure that they are properly designed, maintained, cleaned, disinfected, and used in a manner that minimizes dispersion of aerosols from contaminated laundry:*
 - *Ensure that laundry bags are securely bagged and tightly closed before placing the filled bag into the chute.*
 - *Linen bags shall be tied securely and not be over-filled. Reusable linen bags shall be laundered before re-use.*
 - *Do not place loose items in the chute.*
 - *Laundry chutes should be maintained under negative pressure and discharge into the soiled linen collection area.*
 - *Laundry chutes should be cleaned on a regular basis.”*

Best Practices for Environmental Cleaning for Infection Prevention and Control, April 2018, page 70

7.1.3 Washing and Drying Laundry

“Shall take into consideration the recommendations of the manufacturers of the washer and dryer, materials to be laundered, and the detergent used when setting their laundry formula.”

7.1.5 Laundry Staff Protection

Addition:

“Immunization of laundry staff against hepatitis B and tetanus due to the high risk of sharps injury.”

Best Practices for Environmental Cleaning for Infection Prevention and Control, April 2018, page 71-72

Staff Safety

7.2.2 Handling of Sharps *“Ensuring that staff ALWAYS place sharps into the sharps container, immediately after use and educating staff about sharps safety, including the correct disposal of used sharps and sharps found in the environment (e.g., sharps in laundry, waste, or on the floor).”*

Aerosol or Trigger Sprays *for cleaning chemicals must not be used*

Best Practices for Environmental Cleaning for Infection Prevention and Control, April 2018, page 75 and 82

Minor

- 6.1 Soiled and Clean Utility Rooms
- 6.2.2.1 Housekeeping Closets
- 6.2.2.2 Cleaning Carts
- 7.2 Management of Biomedical Waste and Disposal of Sharps

6.1 Soiled (Dirty) and Clean Utility/Supply Rooms

Soiled Utility

Shall:

- a. Be physically separate from other areas, including clean supply/storage areas
- b. Contain a work counter and flushing-rim clinical sink
- c. Not use sprayers attached to the hopper
- d. Contain a dedicated hand washing sink with hot and cold running water
- e. Have adequate space to permit the use of equipment required for the disposal of waste
- f. Contain PPE for staff protection
- g. Be adequately sized within the unit and located near the point-of-care

Best Practices for Environmental Cleaning for Infection Prevention and Control, April 2018, pages 66-67

Clean Utility Rooms

- a. Be separate from and have no direct connection with soiled areas
- b. Protect supplies from dust and moisture, and ensure storage off the floor
- c. Be adjacent to usage areas and easily available to staff

Best Practices for Environmental Cleaning for Infection Prevention and Control, April 2018, page 62

6.2.2.1 Housekeeping Closets

“Housekeeping closets shall be provided in all major care areas with a minimum of one closet per 650 square metres.”

Housekeeping closets: several changes with strengthened language that is most related to staff safety e.g. eyewash station

Best Practices for Environmental Cleaning for Infection Prevention and Control, April 2018, page 62

6.2.2.2 Cleaning Carts

- Cleaning carts must have a clear separation between clean and soiled items.
- Cleaning carts must never contain personal belongings, food or beverages.

Best Practices for Environmental Cleaning for Infection Prevention and Control, April 2018, page 63

7.2 Management of Biomedical Waste and Disposal of Sharps

“In order to allow for proper treatment and disposal of waste and to optimize waste diversion, waste shall be segregated at the point of generation into the following categories and should not be mixed:

- *biomedical*
- *pharmaceutical*
- *chemical*
- *radioactive*
- *general, and*
- *recyclable”*

Best Practices for Environmental Cleaning for Infection Prevention and Control, April 2018, page 72



PIDAC Best Practices for Environmental Cleaning for Prevention and Control of Infections in All Health Care Settings, 3rd Edition :
[https://www.publichealthontario.ca/en/eRepository/Best Practices Environmental Cleaning.pdf](https://www.publichealthontario.ca/en/eRepository/Best_Practices_Environmental_Cleaning.pdf)

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Intersections Group Activity-Worksheet

5 minutes: Think about the environmental cleaning best practice changes that were presented. Which ones may present a challenge for you? Alternatively, is there another EC challenge you are having?

10 minutes: Discuss as a group and decide on your top 3 issues.

15 minutes: Discuss and answer the questions on the worksheet for one or more of your issues.

15 minutes: One person from each group to share one topic with the room.