

Best Practice Guideline	Care and Management of a Long-Term Care (LTC) Resident Colonized and/or Infected with Carbapenemase Producing Organisms (CPO)
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Revised Date	

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Site Applicability

All Vancouver Coastal Health owned, operated and contracted LTC homes.

Scope of Practice

All staff direct care staff including students.

Purpose

Guidance on management of suspected and confirmed Carbapenemase-Producing Organisms (CPOs) of residents in LTC homes.

Background

Carbapenemase-Producing Organisms (CPOs) are bacteria, (*Klebsiella*, *Escherichia coli* (*E. coli*), *Acinetobacter*, and *Pseudomonas*) that are resistant to most antibiotics. Similar to other Antibiotic Resistant Organisms (AROs), residents can be colonized or infected with a CPO.

Normally these bacteria live in the gut and do not cause illness. If the bacteria move to the blood, or other areas in the body they can cause infection. When a CPO causes an infection, the choice of antibiotics available to treat the infection is limited.

The best way to protect residents is through hand hygiene and thorough cleaning and disinfection of shared equipment and surfaces using an appropriate cleaning product.

CPOs are found in a number of countries around the world. Healthcare Facilities in Canada, including B.C., are starting to see more of these microorganisms as people travel from countries and regions where CPOs are more common.

Most individuals identified as being CPO positive have a history of healthcare encounters, including hemodialysis, outside of Canada. The longer a person is hospitalized and the more extensive the care they received in that country, the more likely he/she will acquire a CPO.

Transmission

CPOs are transmitted through direct skin-to-skin contact or indirect contact with the body fluids of an infected or colonized individual. Transmission can occur through indirect contact with contaminated surfaces or equipment.



Precautions Required - Colonization

Place residents colonized with CPO on [Enhanced Barrier Precautions](#) in addition to routine practices.

In acute care environments, patients are placed on contact precautions when they are colonized or have an active infection with a CPO. Using these same containment measures in Long-Term Care would result in indefinite application of contact precautions that may have detrimental effects on resident well-being, including social isolation, depression, mental health decline, decreased opportunities for engagement in group activities, outings and limited ability for physical activity.

Enhanced Barrier Precautions involve the expanded use of personal protective equipment (PPE) for high-contact resident activities that may increase the risk for transfer of CPOs from staff hands and clothing.

Post Enhanced Barrier Precautions sign inside the resident room in a location that is visible to all HCP's. Use Enhanced Barrier Precautions in the following circumstances:

- Dressing
- Bathing/Showering
- In room transferring
- Providing hygiene
- Changing linens
- Changing briefs or assisting with toileting
- Device care or use: central line, urinary catheter, feeding tube, tracheostomy/ventilator care
- Wound Care: any skin opening requiring a dressing

Activities for Residents on Enhanced Barrier Precautions

Group dining/activities (i.e., recreational therapy, physiotherapy, occupational therapy and such) may continue as per regular practice following routine practices.

- Use additional PPE based on point of care risk assessment.

Precautions Required – Active Infection

Place residents with an active CPO infection on [Contact Precautions](#) or [Droplet Contact Precautions](#) if CPO found in the sputum or respiratory tract, until the infection has resolved. See [Diseases and Conditions Table](#).

Once the active infection resolves place resident on Enhanced Barrier Precautions in addition to routine practices.

Admissions and Transfers

For resident colonized with CPO that are being considered for transfer to Long-Term Care, the acute care discharge planning team (e.g. Transition Services Team; Care Management Leader) must contact the LTC Infection Control Practitioner (ICP) Team (ICP-LTC@vch.ca) to discuss resident accommodation and planning needs.

When transferring a resident, notify the transferring service, receiving unit, or facility/home care agency of the necessary requirements in advance.



Colonization or infection with COP should not be an admission barrier to LTC.

IPAC Education

Prior to admission, LTC ICP will provide the site with education and assist with the development of the care plan.

Resident Care Plan

Staff will develop a resident specific care-plan in consultation with the ICP the Medical Microbiologist for colonization and active infections. See Appendix A Care Plan Template.

Accommodation

Single rooms with dedicated bathroom are preferred for placement.

- If a single room is not available, place the resident in a shared room with other CPO colonized residents (cohorting).
- If the above two options are not available, consider placing with a roommate who has the least amount of risk factors for CPO (ie. No open wounds, immunocompetent, bed bound, no indwelling devices)

When a dedicated washroom is not available, use a dedicated commode with disposable hygienic products. See [Disposable Hygienic Products](#).

Environmental Controls

Residents must have dedicated reusable medical equipment

- Ex. BP cuff/slings, commodes if used

Clean and disinfect shared non-critical equipment (stethoscope, thermometer) as per the recommended manufacturer's instructions for use (MIFU) using a Health Canada approved cleaner/disinfectant

Personal care items must be resident specific

- Ex. soaps/lotions/creams/toothpaste/razors

Routine cleaning unless otherwise documented in the care plan

Clean and disinfect tub/shower room after use.

Management of Residents identified as Close Contacts of a CPO Resident

ICP will consult the Medial Microbiologist regarding residents identified as close contacts.

Definitions

Carbapenemase-producing organisms (CPO): CPO are a group of bacteria (*Klebsiella*, *Escherichia coli* (*E. coli*), *Acinetobacter*, and *Pseudomonas*) that are resistant to many different types of antibiotics including carbapenems. Carbapenems are a type of antibiotic used when other common antibiotics are not effective



Colonization: When a person carries CPO and does not have any symptoms of illness. The detection of CPO from any of the following body sites: axilla, groin, nares, oral cavity, or rectum of an asymptomatic resident

Enhanced Barrier Precautions: The expanded use of PPE during high-contact resident care activities that may increase the risk for transfer of organisms to staff hands and clothing.

Infection: When CPOs enter the body (ie. bloodstream, wound, ear, urinary tract, pneumonia) and causes signs and symptoms of infection.

Appendices

Appendix A Care Plan Template (*in development*)

References

1. Diversey, Inc (no date). Video Hub: A new bug in town – c. auris webinar. Retrieved from: Diversey Video
2. PICNet-CPO-Toolkit_April-2018.pdf (PAGE 19) PICNet_ARO_Guidelines_March2013.pdf
3. Public Health Agency of Canada (2012). Guidance: Infection Prevention and Control Measures for Healthcare Workers in All Healthcare Settings - Canada.ca
4. Vancouver Coastal Health (2016). Residential CPO fact sheet. CPO_Long Term Care Fact Sheet_Health Care Providers.pdf (vch.ca)

