

Containment Checklist for Carbapenemase-Producing Organisms

FOR LONG-TERM CARE SETTINGS

This document is intended to serve as a checklist for infection prevention and control (IPC) in long-term care facilities providing care for a resident with a carbapenemase-producing organism (CPO) such as carbapenem-resistant Enterobacterales (CRE), Pseudomonas, or Acinetobacter with at least one or more carbapenemase-producing genes (e.g., KPC, NDM, VIM, IMP, or OXA-48).

Minnesota Department of Health (MDH) is available for consultation and can provide onsite infection control assessments. Please contact us by phone at 651-201-5414 or by email at health.icar@state.mn.us.

Admission and room placement

- Place resident with CPO in a single-person room with private bathroom. If single-person rooms are not available:
 - **Single-person rooms should be prioritized for residents who are placed on Contact Precautions for an acute infection.** Refer to Standard and Contact Precautions section below for more details on situations when Contact Precautions should be applied.
 - Cohort residents with the same organism **and** carbapenemase gene and implement the following IPC measures:
 - Maintain at least three feet of spatial separation between beds.
 - Use of privacy curtain to limit direct contact.
 - Clean and disinfect all shared equipment before use on another resident.
 - Clean and disinfect environmental surfaces daily and at point of care.
 - Change personal protective equipment (PPE) and perform hand hygiene with transition of care from one roommate to another.
- Place a flag in the resident chart so appropriate precautions can be applied.
- Provide just-in-time education to ensure staff understand that CPOs are resistant to antimicrobial drugs, can cause invasive and deadly infections, and infection prevention and control practices are necessary to contain transmission and reduce the potential for spread to other residents. For resources, refer to:
 - [Project Firstline Training and Resources \(www.health.state.mn.us/facilities/patientsafety/infectioncontrol/pfl/training/index.html\)](http://www.health.state.mn.us/facilities/patientsafety/infectioncontrol/pfl/training/index.html)
 - [Carbapenem-resistant Enterobacteriaceae \(CRE\) \(www.health.state.mn.us/diseases/cre/index.html\)](http://www.health.state.mn.us/diseases/cre/index.html)

Standard and Contact Precautions

- Instruct staff to follow Standard Precautions with all resident care and use PPE as necessary to protect themselves. For example, staff should wear a mask and eye protection or face shield when performing procedures likely to generate splash or splatter (e.g., wound care).
- Use Contact Precautions for all residents infected or colonized with a CPO with any of the following symptoms: acute diarrhea, draining wounds, or other sites for secretions or excretions that are unable to be covered or contained.

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- Contact Precautions include wearing a gown and gloves for all interactions that may involve contact with the infected resident or the infected resident's environment.
- To contain spread of CPO and reduce risk of transmission, staff should don PPE upon room entry and properly discard the PPE before exiting the infected resident's room.
- Ensure Contact Precautions signs are clearly posted and an adequate supply of PPE (gowns, gloves) is stocked outside the room.
- Dedicate non-critical medical equipment such as stethoscopes and blood pressure cuffs whenever possible to minimize transmission risk. If equipment cannot be dedicated, ensure thorough cleaning and disinfection between resident use.

Enhanced Barrier Precautions (EBP)

- Implement Enhanced Barrier Precautions during high-contact care activities (dressing, bathing/showering, transferring, providing hygiene, changing linens, changing briefs, or assisting with toileting, device care or use, or wound care) in residents with any of the following:
 - Infection or colonization with any CPO when Contact Precautions do not apply.
 - Wounds and/or indwelling medical devices (e.g., central line, urinary catheter, feeding tube, tracheostomy/ventilator) regardless of CPO colonization status.
- Ensure Enhanced Barrier Precautions signs are clearly posted and an adequate supply of PPE (gowns, gloves) is stocked outside the room.

For more details on when to apply standard, contact, and EBP refer to: [CDC: Implementation of Personal Protective Equipment \(PPE\) Use in Nursing Homes to Prevent Spread of Multidrug-resistant Organisms \(www.cdc.gov/long-term-care-facilities/hcp/prevent-mdro/ppe.html\)](http://www.cdc.gov/long-term-care-facilities/hcp/prevent-mdro/ppe.html).

Hand hygiene

- Instruct staff to follow standard hand hygiene practices, including the use of alcohol-based hand sanitizer, or if hands are visibly soiled, soap and water.
- Ensure hand hygiene products are stocked, readily available for use, and not expired.

Environmental and point-of-care cleaning

- Notify Environmental Services (EVS) the resident has infection or colonization with a CPO and ensure EVS staff are using all appropriate PPE and cleaning and disinfectant products.
- Daily and discharge cleaning procedures should be written for regular and isolation rooms with focus on frequently touched surfaces.
- Ensure cleaning and disinfection of other areas where residents with a CPO receive care (e.g., occupational and physical therapy).
- Clean and disinfect shared equipment according to manufacturer's instructions (e.g., ultrasound, stethoscopes, blood pressure cuffs) before use on another resident.
- Ensure environmental cleaning of the room and point of care cleaning is being performed with products that are effective against the organism that is causing infection or colonization. Ensure that staff follow all manufacturers' directions for use.
 - An EPA-registered disinfectant effective against the specific organism should be used for disinfecting the environment and equipment after cleaning.

Reduce risk of transmission from water

In health care settings, CPOs can contaminate wastewater plumbing systems. Water splashes from sources such as sink drains and toilets have been associated with outbreaks of CPOs.

For all residents in the facility:

- Store resident care items at least three feet away from sinks, drains, and hoppers.
- Do not discard beverages or liquid nutritional supplements into sinks or toilets.
- Do not discard resident waste in sinks.
- Clean and disinfect countertops, handles, faucets and sink basins at least daily.
- Clean and disinfect showers and shower chairs between residents.

Auditing

- Audit and provide feedback for staff hand hygiene, personal protective equipment, wound care, and environmental cleaning compliance to ensure adherence to policies and procedures.

For more information, refer to: [ICAR Infection Prevention Audit Tools \(www.health.state.mn.us/facilities/patientsafety/infectioncontrol/icar/res/audit.html\)](http://www.health.state.mn.us/facilities/patientsafety/infectioncontrol/icar/res/audit.html)

Resident and visitor education

- Instruct residents and visitors about basic infection prevention and control practices, including hand hygiene.
- Instruct visitors assisting in the direct care of residents to follow the same precautions as health care providers.

For more information to guide education of residents and visitors, refer to [CDC: Carbapenem-resistant Enterobacterales \(CRE\) Infection Control \(www.cdc.gov/cre/hcp/infection-control/index.html\)](http://www.cdc.gov/cre/hcp/infection-control/index.html).

Screening health care contacts

- To determine if transmission has occurred within your facility, work with MDH epidemiologists to identify if any health care contacts should be screened for colonization. MDH epidemiologists can be reached by telephone at 651-201-5414.

Transport/transfer

Transporting within a health care setting

- Ensure staff are educated on the following items prior to transferring a resident with a MDRO:
 - Use of PPE when contact with blood or body fluids is anticipated.
 - Cover wounds and contain body fluids before transport (e.g., wound drainage contained by dressing, respiratory etiquette to contain secretions of coughing residents).
 - Instruct or assist resident to perform hand hygiene prior to leaving room.
 - Ensure the resident's clothing is clean and not visibly soiled. A clean sheet should be placed on resident when transported in a bed.

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- Clean wheelchair or gurney for resident transport and disinfect it after resident transport. If resident bed is required, disinfect grab bars prior to transport.
 - Disinfect other equipment that is transported with the resident.
 - Remove PPE and perform hand hygiene after the resident has been transferred to the wheelchair or gurney.
- Notify the receiving unit of the resident's isolation status (e.g., Contact Precaution or EBP) prior to arrival.

Transferring between health care settings

- Notify all receiving health care facilities when transferring a resident with CPO infection or colonization (active or remote history).
- An example of a transfer form can be found at [CDC: Inter-Facility Infection Control Transfer Form for States Establishing HAI Prevention Collaboratives \(www.cdc.gov/healthcare-associated-infections/media/pdfs/Interfacility-IC-Transfer-Form-508.pdf\)](https://www.cdc.gov/healthcare-associated-infections/media/pdfs/Interfacility-IC-Transfer-Form-508.pdf)
- Instruct staff to cover wounds and contain body fluids of resident before transfer.
- Direct staff to notify medical transport services to use Contact Precautions.

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To obtain this information in a different format, call: 651-201-5414.