

laundry before another use. Do not dip a cloth back into disinfectant solution after use.

- Evaluate cleaning/disinfecting effectiveness with auditing tool. Refer to the PIDAC document 'Best Practices for Environmental Cleaning for Prevention and Control of Infections in All Health Care Settings'.
- **Terminal Cleaning** or double cleaning must be performed once the patient is discharged from the room or is out of isolation. Contact precautions are to be discontinued only after successful terminal cleaning.
 - Use a sporocidal agent
 - Remove all dirty disposable items
 - Remove curtains (privacy, window, shower) before starting to clean the room
 - Discard the following used items and other similar items:
 - Soap
 - Toilet paper
 - Paper towels
 - Glove box
 - Toilet brush
 - Use fresh cloths, mop, supplies and solutions to clean the room.
 - Use several cloths to clean a room.
 - Use each cloth one time only, do not dip a cloth back into disinfectant solution after use to re-use it on another surface.
 - Clean and disinfect all surfaces and allow for the appropriate contact time with the disinfectant.
 - For double cleaning: Using fresh cloths, mop, supplies and solutions, re-clean and disinfect the room, using the above procedure.
 - Replace curtains with clean curtains, and put fresh toiletries and supplies following the second cleaning.

Environment and Equipment Consideration for Shared Room

- Consider the bed space of each resident with CDI as an environment of a single room.
- Use curtains or floor lines for delineation of CDI patient environment.
- Change gloves and gowns and cleaning cloths between each resident area.
- Contact Precautions PPE - the use of gloves and gowns.
 - Don PPE before entering the CDI resident's bed space
 - Discard appropriately upon leaving the resident's bed space.
 - Staff uses hand-washing sink separate from resident's sink or performs hand hygiene using abundant alcohol based hand rub after glove removal until washing hands at a separate hand-washing sink.

Treatment of CDI

- Asymptomatic residents positive for *C. difficile* may not need to be treated.
- Reviewing the recent history of antibiotic usage may be necessary.
- Provide re-hydration therapy.
- Avoid Anti-motility agents.
- Monitor patients for signs and symptoms of complications such as dehydration, blood in the stool, peritonitis, and notify the Attending Physician.
- Specific CDI treatment is available at the Physician's recommendation.

The 4 Moments for Hand hygiene in Health Care

1. BEFORE initial contact with a resident or resident environment.
2. BEFORE aseptic procedure.
3. AFTER body fluid exposure risk.
4. AFTER contact with a resident and when leaving a resident environment.

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Health Department
Promoting and Protecting Health.
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Clostridium difficile



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Practical Information for LTC and Retirement Homes

Screening and Laboratory Testing

- No evidence to support laboratory testing on formed stool or asymptomatic individuals.
- Consider testing as soon as possible after the onset of diarrhoea.
- If CDI is suspected based on symptoms and risk factors, a single negative test by enzyme immunoassay (EIA) does not rule out *C. difficile*. A second specimen should be tested.
- Testing by polymerase chain reaction (PCR) is more sensitive and if the first test is negative, a second test is not necessary.
- Re-testing after treatment as a test of cure is not indicated. Toxin may persist in stool for weeks, therefore is not helpful in determining duration of treatment or the discontinuation of Additional Precautions.
- Testing for *C. difficile* toxin may be repeated if symptoms do not resolve despite treatment or to diagnose a relapse of CDI following a period of absence of symptoms.

Outbreaks

- CDI outbreaks are reportable to public health by long-term care homes as institutional outbreaks of gastroenteritis.
- Any cluster of cases should trigger an investigation. Notify Public Health for early identification of an outbreak and early implementation of outbreak control measures.
- Individual CDI case management and control measures that need to be implemented can affect the home's daily routines.
- Have an outbreak contingency plan in place.

Infection Control

- *C. difficile* is passed out in the feces of people who are infected. *C. difficile* is able to form spores that can survive for a long time in the surroundings, on any surfaces, mainly washrooms, bed sheets or other contaminated items, including medical equipment.
- **Contact Precautions in addition to Routine Practices** must be implemented as soon as possible at the onset of diarrhoea.



Definition of *Clostridium difficile* Infection (CDI)

A CDI Case is defined as:

A person with a laboratory confirmation of a positive toxin assay for *C. difficile* together with diarrhoea; Diarrhoea is defined as the new onset of three or more watery stools in 24 hours that is not attributable to other causes

Or

Diagnosis of pseudo-membranous colitis by colonoscopy or biopsy

Or

Diagnosis of toxic megacolon

Risk Factors

Most common risk factors associated with CDI include:

- Antibiotic usage
- Immunosuppressive therapy and chemotherapy
- Proton pump inhibitors
- Bowel disease and bowel surgery
- Prolonged hospitalization

Patient Considerations

- Single bed room accommodation with dedicated bathroom or individual commode chair if possible. This may require limiting a shared bathroom to one resident.
- In a multi-bed room:
 - Visible signage indicating the precautions to be used within the CDI bed space.
 - Maintain physical separation and draw privacy curtain between residents to promote separation of items.
 - Provide an easily accessible supply cart for gloves, gowns, and hand hygiene supply.
 - Place a laundry hamper as close to the resident's bed space as possible.
 - Dedicate a commode chair and other personal care items for the resident's use.
- Meticulous hand hygiene to be observed and instructed. Residents who are unable to perform hand hygiene independently should be assisted with their hand washing by the health care provider.
- Transfer of a resident with CDI to another health care facility needs notification of transportation services and the receiving hospital or department for timely implementation of additional contact precautions.

Discontinuation of Additional Precautions

- Discontinue additional contact precautions after consultation with the Infection Control staff, when the resident has been 48 hours symptoms free.
- Contact Precautions should not be discontinued until the room/bed space has received terminal CDI cleaning.

Visitor Considerations

- *C. difficile* does not usually cause illness in healthy people.
- Those who are taking antibiotics for any reason, have abdominal surgery, are on chemotherapy, or have debilitating underlying illness, are at increased risk for developing CDI.
- Advise visitors about contact precautions and show how to wear gown and gloves if they are providing direct care or touching contaminated surfaces.
- Hand hygiene is similar with that for the health care provider.
- Advise visitors about not touching potentially contaminated surfaces - bedrails, linen, and about not using the patient's washroom facility or hand washing sink, not eating or drinking within the resident bed space, and not going into other residents room or bed space.

Health Care Provider Considerations

Routine Practices AND Additional Contact Precautions

- In addition to routine practices, use Gloves and Gowns.
- Put on gown and gloves before entering the isolation room and discard appropriately – gloves and gown upon leaving the room.
- Mask and eye protection may be necessary based on risk assessment when splashing of body fluids is anticipated as part of routine practices.
- Health care workers must not consume food or drinks in an isolation room or bed space area.
- Health care worker providing care need to be trained and receive information on control measures to be implemented.

Tips on Meticulous Hand Hygiene

- Washing hands with soap and water is considered more effective in removing spores than alcohol-based hand rub.
- Hand hygiene should not be performed at the patient-resident sink, as this practice may re-contaminate the health care provider's hands.
- When a hand washing sink is immediately available outside the isolation room, hands should be washed for 15 to 30 seconds with soap and water after glove removal.
- When a hand washing sink is not immediately available, hands should be cleaned using an alcohol-based hand rub before putting on and after removing gloves as per routine practices.

Environment and Equipment Consideration in CDI Isolation Room

- **Twice Daily Cleaning** of frequently touched areas such as bed side rails, commode, toilet, mattress, call bells, light switches, door handles, faucets.
- Clean surfaces prior to disinfection to remove all debris and organic materials, and apply a sporocidal hydrogen peroxide product or 1:10 household bleach solution for the appropriate contact time.
- De-clutter and remove superfluous or un-cleanable equipment or furniture.
- Thorough cleaning of washrooms or commode is very important.
- Do not spray cleaning or disinfectant solutions. Apply them abundantly on cleaning cloths (micro-fibre cloth may be more effective in removing spores).
- Do not re-contaminate the cleaning cloth or the cleaned area.
- Use each cleaning cloth only once, and either discard or