
IC7:0400 MANAGEMENT OF CLOSTRIDIUM DIFFICILE ASSOCIATED DIARRHEA, CDI

1.0 STANDARD

In addition to Routine Practices, Contact Precautions are implemented for residents with suspected or confirmed diarrheal *Clostridium difficile* Infection (CDI). Precautions remain in place until resident has had at least 72 hours without symptoms of loose and/or watery stool.

For residents on precautions and sharing a room, dedicate a commode or toilet for their use while on precautions. A single room is recommended if diarrhea cannot be contained and environmental contamination is likely.

An outbreak is 3 or more cases of healthcare associated transmission of *C. difficile* in a 7 day period.

2.0 DEFINITION

C. difficile is a Gram positive spore-forming anaerobic bacillus. Some strains produce toxins that cause diarrhea, fever, loss of appetite, nausea and abdominal pain.

Risk factors for CDI include:

- A history of antibiotic usage
- Bowel surgery
- Chemotherapy
- Prolonged hospitalization
- Increased age
- Serious underlying illness or debilitation

2.1 A diagnosis of CDI applies to a person with:

- Acute onset of diarrhea (≥ 3 loose stools in a 24 hr period) without another etiology (loose stool is defined as that which takes the shape of the container that holds it, Bristol stool chart # 6 or 7).

And one or more of the following

- Laboratory confirmation (positive toxin or culture with evidence of toxin production)
or
- Diagnosis of typical pseudo-membranes on sigmoidoscopy or colonoscopy or histological/pathological diagnosis of CDI
or

Infection Control Manual – Residential Care

PART 3 – INFECTION CONTROL STANDARDS

IC7: CLOSTRIDIUM DIFFICILE

- Diagnosis of toxic megacolon
- 2.2** Healthcare Associated CDI linked to currently admitted facility: A CDI case (as defined above) with symptom onset at least 72 hours or more after admission to a health care facility.
- 2.5** Community Associated: A CDI case (as defined above) with symptom onset in the community or 72 hours or less after admission to a healthcare facility, provided that symptom onset was more than 8 weeks after the last discharge from a healthcare facility.
- 2.6** Relapse of CDI: A CDI case (as defined above) with recurrence of diarrhea within 2 to 8 weeks of a previous *C. difficile* episode (as determined by the date of a previous lab test, chart note or diagnosis by endoscopy or pathological specimen) provided that CDI symptoms from the earlier episode resolved with or without treatment.

Note: A case with recurrence of diarrhea less than two weeks from the previous episode is considered to be a continuation of the previous episode and not a relapse.

3.0 TRANSMISSION

C. difficile bacteria and spores are found in feces. Infection can happen when hands have contact with surfaces contaminated with feces that then touch the mouth.

Transmission between residents may be from the hands of health care personnel.

Transmission may also happen from contact with the environment or resident care equipment and care supplies.

CDI spores can persist on environmental surfaces for lengthy periods of time. Frequent hand hygiene and meticulous cleaning of surfaces contaminated with feces is important to limit transmission.

Note: It is not uncommon for individuals to experience one or more episodes of symptom relapse in the weeks following initial symptom onset and. If this does occur, restart Contact Precautions until 72 hours after symptom resolution. Notify Physician.

4.0 PROCEDURE (non-outbreak):

4.1 All staff shall:

Infection Control Manual – Residential Care

PART 3 – INFECTION CONTROL STANDARDS

IC7: CLOSTRIDIUM DIFFICILE

- Wear gloves and gowns for direct care
- Keep residents in their room on Contact precautions if stool cannot be contained and there is likelihood of environmental soiling. See IC6:0400
- Discontinue Contact Precautions when there have been no loose stools for 72 hours.
- Residents that have contained stool and not soiling the environment may leave the room after cleaning hands with soap and water, having clean clothing and ensure incontinent device is dry and secure
- Collect a stool sample for *C. difficile* testing if there are ≥ 3 loose stools in a 24 hour period without another etiology.
- Notify other agencies if the resident requires transfer. See IC6:0200
- Routine cleaning practices continue.

4.2 Director of Care/manager or designate:

- Provide staff education regarding infection prevention and control measures as required.

5.0 PROCEDURE FOR CDI OUTBREAKS

5.1 In addition to the above initiate enhanced cleaning

5.2 All staff shall:

- Follow Contact Precautions and maintain Routine Practices.
- Perform hand hygiene with soap and water when caring for residents with diarrhea or their environment. If soap and water is not readily available, use alcohol based hand rub and then wash hands with soap and water as soon as possible.
- Complete daily care and dress the resident in clean clothes. Belted trousers are useful when there is a risk of fecal contamination from manipulating the incontinence device. Other strategies may be developed if fecal contamination remains a problem.
- Instruct or assist resident to wash hands with soap and water before and after eating, and after using the toilet or commode.
- Follow regular practices for laundry and garbage disposal
- Regular trays service to be used
- All shared resident equipment is to be dedicated or cleaned between residents using a hospital grade disinfectant with sporicidal properties.
- Some Accelerated Hydrogen Peroxide 0.5 % products have demonstrated spore reducing capabilities and can be used for equipment cleaning.
- When using bedpans a closed system is to be used, (no emptying of bedpans in toilets or hoppers) A washer disinfectant. Macerator or disposable hygienic bags should be considered

Infection Control Manual – Residential Care

PART 3 – INFECTION CONTROL STANDARDS

IC7: CLOSTRIDIUM DIFFICILE

4.2 Director of Care/manager or designate:

- Provide staff education regarding infection prevention and control measures as required
- Communicate with housekeeping enhanced cleaning requirements
- Environmental cleaning agent to be changed to a **sporicidal agent** and a second clean/disinfect is to be completed 6-8 hours following the initial clean/disinfect (include the document of surfaces that require the second clean/ disinfection.
 - Bleach at 1:10 or 5000 ppm is sporicidal with a contact time of 10 minutes. Cleaning first using a hospital grade detergent is required.
 - Accelerated hydrogen peroxide at 4.5% is sporicidal. Contact time based on manufacturer's instructions must be followed

5.3 Discontinuation of precautions

- Upon discontinuation of precautions a terminal clean using either of the disinfectants listed above, of the room is to be done as well as:
 - Take down privacy curtains and launder
 - Discard disposable items in bathroom, toilet paper and paper towels

6.0 VISITORS

- Visitors should receive information on CDI
- Visitors and families are not required to gown and glove unless providing direct patient care such as prolonged direct intensive contact or procedures and activities that expose the caregiver to mucous membranes or blood and body fluids e.g. assisting with toileting, oral care, pericare, bathing, wound care, catheter care, ostomy care. Activities not considered direct patient care are casual contact such as hugs, holding hands
- Advise visitors not to use the resident's bathroom
- Encourage soap and water hand washing.
- Discourage visiting other residents or areas

7.0 REFERENCES

Provincial Infection Control Network (2013). Residential Infection Prevention and control Manual.

<http://www.picnet.ca/practice-guidelines>

Public Health Agency of Canada, CDI Infection Prevention and Control Guidance for Long Term Care Facilities 2012.

<http://www.phac-aspc.gc.ca/nois-sinp/guide/c-dif-ltc-sld/index-eng.php>