**Purpose**

To prevent the transmission of Clostridium difficile infection (CDI) in healthcare facilities including hospitals, residential care homes and community settings and to minimize the risk of complications associated with CDI.

**Definitions**

*Clostridium difficile (C. difficile)* is a bacterium that causes mild to severe diarrhea and intestinal conditions like pseudomembranous colitis (inflammation of the colon). *C. difficile* is the most frequent cause of healthcare associated infectious diarrhea in hospitals and residential care facilities and is becoming more prevalent in the community.

Most cases of *C. difficile* occur in persons who are taking certain antibiotics which can destroy the person’s normal bacteria found in the gut, causing *C. difficile* bacteria to grow. When this occurs, the *C. difficile* bacteria produce toxins which can damage the bowel and cause diarrhea. Some people can have *C. difficile* bacteria present in their bowel and not show symptoms. There are many different strains of *C. difficile* and one strain known as NAP1 (North American Pulsed Filed type 1) can cause serious illness.

*C. difficile* bacteria are found in feces and produce spores that are resistant many common types of environmental disinfectants. These spores can live in the environment for long periods of time, contaminating toilet areas and commodes. People can get infected if they touch surfaces contaminated with the spores, and then touch their mouth. Healthcare workers can spread the bacteria to their patients if their hands are contaminated.

*C. difficile* poses a particular risk to the elderly, pediatric and oncology patients and pregnant women. Additional risk factors include antibiotic usage, proton pump inhibitor usage, bowel disease and bowel surgery, prolonged hospitalization, and immunosuppressive therapy post-transplant.

Symptoms include watery diarrhea, fever, loss of appetite, nausea and abdominal pain/tenderness. Persons are infectious while diarrhea is present.

**Additional Precautions Twice Daily Clean with a Sporicidal Disinfectant** – the type of clean housekeeping uses for cleaning and disinfecting rooms/cubicles where a patient is on additional precautions for *C. difficile*. Cleaning occurs **twice daily**, the second cleaning and disinfection is **6-8 hours after** the first cleaning and disinfection and focuses on the **high touch areas** in the patient room/area/space and **bathroom** (IH Housekeeping for Healthcare manual pg.87).

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Additional Precautions Discharge Clean – refers to the cleaning and disinfection process of a patient room when additional precautions is discontinued or the patient is discharged and includes changing the privacy curtains (IH Housekeeping for Healthcare manual pg.109).

Best Practice Checklist for Management of CDI – is a tool used to monitor infection control processes during usual CDI activity on a nursing unit and is NOT part of the patient chart. It can be completed by either a nurse leader/educator or Infection Control Practitioners (ICPs).

Internal Alert – when the number of CDI cases in a unit or facility is above the pre-determined threshold (trigger point) or there is suspected transmission. Internal alerts bring increased staff awareness of CDI cases in the unit/facility so actions can be taken to prevent an outbreak. The Infection Prevention and Control epidemiologist monitors the internal alert and informs the ICP when the internal alert level is triggered at their site.

Outbreak Definition – CDI cases are classified as an outbreak when the number of new, time-related, healthcare associated CDI cases in a unit or facility is above the expected threshold for that unit or facility and where there is evidence of ongoing transmission despite appropriate interventions. Declaring an outbreak must be done in conjunction with the facility Outbreak Management Team.

Outbreak Management Team – at a minimum, includes the site Infection Control Practitioner, Infection Prevention and Control (IPAC) director, Medical Microbiologist and epidemiologist, site administrator and medical director, nursing unit manager and housekeeping supervisor.

3.0 PROCEDURE

3.1 Additional Precautions
- Contact Precautions to be initiated at onset of diarrhea

3.2 Hand Hygiene
- Wash hands with soap and water (preferred)
- If no sink is in close proximity clean hands with alcohol-based hand rub (ABHR) and wash with soap and water at first opportunity
- Do not perform hand hygiene at a patient sink, as this may cause contamination of the healthcare provider’s. Use a dedicated staff hand washing sink
- Assist patients with cleaning their hands, especially after toileting and before meals

3.3 Patient Placement and Accommodation
- Place patient in a single room with a dedicated toilet on Contact Precautions
- Door may remain open
- Brown Contact Precautions signage placed at the entrance to the patient room, cubicle or designated bed space (i.e.) Emergency Department
- If patients with C. difficile must be cohorted, each patient must be assigned their own commode and kept at the bedside; cohort according to the stage of illness (i.e.) do not cohort new onset CDI with a patient who is recovering and has no diarrhea

3.4 Patient Flow/Transport
- Transfers and/or bed moves should be avoided unless clinically necessary
- Communication of Contact Precautions is essential when a patient goes to another department for testing, to another unit or to other healthcare settings/facilities including communication with Emergency Medical Services (EMS) and other transport staff.
- PPE should be removed and hand hygiene performed, prior to transporting patients.
- If direct contact with patient is required during transport, then those staff must don PPE.

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3.5 **Personal Protective Equipment**
- PPE to be available directly outside the patient room, cubicle or designated bed space.
- Wear gloves and gown when in direct contact with patient or patient environment.
- Remove gown and gloves and discard before leaving the room or bed space and do hand hygiene.

3.6 **Patient Care Equipment**
- Dedicate equipment to a single patient.
- Do not take extra supplies into patient’s room.
- Promote “decluttering” initiatives to facilitate thorough cleaning of surfaces and separation of clean and dirty items and equipment.
- Do not take patient chart into the room.
- Clean and disinfect equipment used for transport after each use.
- Use the sporicidal wipes for cleaning and disinfecting equipment.

3.7 **Cleaning of Patient Environment**
- Use a sporicidal product (accelerated hydrogen peroxide 4.5%) for cleaning and disinfection.
- Clean occurs twice daily, the second cleaning and disinfection is 6-8 hours after the first cleaning and disinfection and focuses on the high touch areas in the patient room/area/space and bathroom (IH Housekeeping for Healthcare manual pg.87).
- The brown Contact Plus Precautions sign alerts Housekeeping staff of the need for twice daily cleaning with a sporicidal disinfectant, [Contact Plus Precautions Sign](#).

3.8 **Education of Patients, Families and Visitors**
- Educate as per Contact Precautions signage.
- Advise families and visitors not to use patient bathroom.
- Provide the *Clostridium difficile* pamphlet to the patient and family located in the Infection Prevention & Control website. (Not available to non IH facilities).

3.9 **Discontinuation of Contact Precautions**
- Precautions may be discontinued when the patient has had no diarrhea for 72 hours; nursing staff to use Bristol Stool chart - Form #809505 to monitor diarrhea.
- It is not necessary to have a negative specimen prior to discontinuing isolation – no retesting is done within 30 days of previous positive result.
- Housekeeping will do an additional precautions discharge clean of patient room when Contact Precautions are discontinued.
- Patient to shower/bathe and put on clean clothes, then go into cleaned bed space.

![Image](https://example.com/image.png)

*The physical act of friction is necessary to remove C. difficile spores.*
3.10 Relapse of Symptoms
- Relapse refers to the recurrence of the symptoms of CDI within two months of the last infection and symptom-free period – occurs in about 30% of cases
- If diarrhea recurs – place patient on Contact Precautions immediately

3.11 Treatment

3.12 Surveillance
- Surveillance for healthcare associated CDI is carried out as per guidelines under 4.2 of IV0200 Definitions for Healthcare Associated Infections (HAI)
- [Best Practice Checklist for Management of CDI](http://inet.interiorhealth.ca/infoResources/forms/Documents/829517.pdf) available to use when increasing rates of CDI identified in specific units/facilities

3.13 Internal Alert
- When the number of CDI cases in a unit or facility is above the pre-determined threshold (trigger point) or there is suspected transmission, then actions can be taken to prevent an outbreak
- Internal alert levels are determined and monitored by the IPAC epidemiologist and team
- When an ‘internal alert’ has been reached, staff within the facility are alerted to the situation and enhanced control measures implemented
- Facility administration should work with the unit staff and IPAC to put additional control measures and resources in place
- An internal alert is for the operational purposes of that facility and a public announcement is not required

3.14 Outbreak Management Team
- An Outbreak Management Team (OMT) is called together and works collaboratively in the prevention, early detection and management of outbreaks
- Under the Public Health Act, consultation is required with the Medical Health Officer (MHO) or designate for the management of outbreaks by IPAC and the facility Administrator – Medical Microbiologist is point of contact for acute facilities
- Public notification of the outbreak is required and posted on the Interior Health public website
- Implement control measures including outbreak signage, additional ABHR products with instructions on hand hygiene for staff and patients, limit visitors, additional environmental cleaning using a sporicidal disinfectant for all inpatient rooms and bathrooms on affected units that continue to have a high incidence of CDI cases – continue this approach until the incidence decreases
- The OMT advocates for enhanced resources required to implement control measures
- If new cases of CDI continue to be detected, the OMT may consider recommending the closure of the affected units to admissions until the outbreak is controlled
- Outbreak declared over when the number of cases has returned to the endemic level
- Hold a debriefing session to identify lessons learned and how future outbreaks can be prevented – the OMT to summarize outcome and lessons learned to share with local/regional IPAC committees

Note: in this document the term “patient” is inclusive of patient, resident or client.
4.0 REFERENCES

4.1 ANNEX C Testing, Surveillance and Management to *Clostridium difficile* In All Health Care Settings. Provincial Infectious Diseases Advisory Committee (PIDAC), Ontario; 2013.

4.2 Best Practice for Environmental Cleaning for Prevention and Control of Infections in all Healthcare Settings, 2nd Edition. Provincial Infectious Diseases Advisory Committee (PIDAC), Ontario; May 2012.


4.4 Fact Sheet *Clostridium difficile*. Public Health Agency of Canada; 2014.

4.5 A Review of *C. difficile* Control Measures….. Dr. Michael Gardam, Director of Infection Prevention & Control, University Health Network and Women’s College Hospital, Toronto, Ontario; February 2012.

See the **RESIDENTIAL CARE PLAN** – Resident with *Clostridium difficile* Associated Diarrhea

See the **ACUTE CARE PLAN** – Acute care plan for *Clostridium difficile* Associated Diarrhea

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Contact Plus Precautions – Form #807914

**CONTACT PLUS PRECAUTIONS**

**Families and visitors:**

**STOP**

Please report to staff before entering

Clean hands before entering and when leaving room

**Staff:**

**Required:**
- Gown & Gloves

Point-of-Care Risk Assessment
When there is a risk of splash or spray, wear face and eye protection.

Twice daily cleaning of high-touch surfaces

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## Residential Care Plan for *Clostridium difficile* Infection

<table>
<thead>
<tr>
<th>RESIDENT CONCERN</th>
<th>GOAL</th>
<th>INTERVENTION</th>
<th>COMMENTS – Date &amp; Signature</th>
</tr>
</thead>
</table>
| *C. difficile* Infection | Control spread of *C. difficile* | In addition to Routine Practices, use Contact Plus Precautions:  - Dedicate toilet or commode at the **onset of diarrhea**  - Empty contents of commode in Dirty Service Room in waste disposal unit  **Mobility:** If the resident has uncontrolled diarrhea, keep them in their room until the symptoms are resolved or can be easily contained with personal hygiene products.  **Resident and Visitor Teaching:**  - Assist residents with hand hygiene – to be done prior to leaving their room, after using the toilet, prior to eating/handling food and when soiled.  - Remind visitors of hand hygiene and not to use resident's bathroom  
Contact Precautions can be discontinued when resident has no diarrhea for 72 hours. | Add pertinent interventions (i.e.) decisions regarding a designated toilet |
| Ensure Resident Confidentiality | | Signage regarding *C. difficile* infection may be required. **Contact Plus Precautions** sign.  
Housekeeping needs to be informed to ensure twice daily cleaning is performed.  
Upon transfer, notify receiving sites that Contact Precautions are required. | |
| Environmental Cleaning | Reduce transmission of *C. difficile* | Use a sporicidal product (accelerated hydrogen peroxide 4.5%) for cleaning and disinfection of resident room.  
Clean occurs twice daily, the second cleaning and disinfection is 6-8 hours after the first cleaning and disinfection and focuses on the high touch areas in the resident room/area/space and bathroom.  
Housekeeping will do **additional precautions discharge clean** of the room when Contact Precautions are discontinued. | |
| Persistent or recurrent diarrhea | Prevent recurring infection | *Clostridium difficile* preprinted orders available for physician use.  
Observe and report progression or recurrence of symptoms.  
Use **Bristol Stool chart** - Form #809505 to monitor diarrhea. | |

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# Acute Care Plan for Patients with *Clostridium difficile* Infection

<table>
<thead>
<tr>
<th>Patient CONCERN</th>
<th>GOAL</th>
<th>INTERVENTION</th>
<th>COMMENTS</th>
</tr>
</thead>
</table>
| C-difficile associated infection | Control spread of *C-difficile* | In addition to Routine Practice, use **Contact Plus Precautions**  
   - private room with dedicated toilet/commode  
   - empty contents of commode in Dirty Service Room in waste disposal unit |  
   **Mobility:**  
   The patient should remain in his/her own room unless going to the operating room, attending a medical treatment session, or requiring diagnostic tests.  
   **Patient and Visitor Teaching:**  
   - Assist patient with hand hygiene – to be done prior to leaving their room, after using toilet, prior to eating/handling food & when soiled.  
   - Remind visitors of hand hygiene and not to use patient’s bathroom.  
   Contact Plus Precautions can be discontinued when patient has no diarrhea for 72 hours. |
| Ensure Patient Confidentiality | Post the **Contact Plus Precautions** sign on outside the patient’s door.  
   When patient goes to another department, or is transferred to another facility, the receiving department or facility MUST be notified of need for Contact Precautions. |  |  |

**Note:** in this document the term “patient” is inclusive of patient, resident or client.
### Environmental Cleaning

| Reduce transmission of C-*difficile* | Use a sporicidal product (accelerated hydrogen peroxide 4.5%) for cleaning and disinfection of resident room. Clean occurs twice daily, the second cleaning and disinfection is 6-8 hours after the first cleaning and disinfection and focuses on the high touch areas in the patient room/area/space and bathroom. Housekeeping will do additional precautions discharge clean of the room when Contact Precautions are discontinued. |

### Persistent or recurrent diarrhea

| Prevent recurring infection | *Clostridium difficile* pre-printed orders available for physician use. Observe and report progression or recurrence of symptoms. Use [Bristol Stool chart](#) - Form #809505 to monitor diarrhea. |

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**Note:** in this document the term “patient” is inclusive of patient, resident or client.