1.0 **PURPOSE:**

1.1 To prevent and/or minimize the transmission of Clostridium difficile from person to person both within the personal care home/long term care facility and between facilities/sites within the Winnipeg Regional Health Authority (WRHA).

1.2 To ensure consistent Infection Prevention and Control practices are followed for the management of Clostridium difficile Associated Diseases (CDAD) within the WRHA personal care homes/long term care facilities.

2.0 **DEFINITIONS:**

2.1 **Additional Precautions:** Infection control precautions and practices required in addition to Routine Practices. They are determined by the mode of transmission of selected microorganisms or clinical presentation.

2.2 **Cleaning:** The physical removal of foreign material, e.g. dust, soil, organic material such as blood, secretions, excretions and microorganisms. Cleaning physically removes rather than kills microorganisms. It is accomplished with water, detergents and mechanical action.

2.3 **Clostridium difficile (C. difficile):** A gram-positive spore-forming anaerobic bacillus microorganism of the gastrointestinal tract.

2.4 **C.difficile-Associated Diseases (CDAD):** Illnesses include diarrhea, colitis, toxic megacolon, sepsis-like picture and death caused by C. difficile and its toxin expression.
2.5 Clostridium difficile Associated Disease (CDAD) case definition: Acute onset of diarrhea (3 or more loose stool that takes the shape of the container that holds it, within a 24 hour period) without another etiology; and laboratory confirmation (positive Clostridium difficile toxin, culture with evidence of toxin production or histological/pathological diagnosis of CDAD); or diagnosis of typical pseudo-membranes on endoscopy (sigmoidoscopy or colonoscopy); or diagnosis of toxic megacolon supported by diagnostic imaging.

2.6 Clostridium difficile Associated Disease (CDAD) Nosocomial Case (current facility): Resident’s initial symptoms occur greater than 48 hours (2 or more days) after admission; or a resident who has been discharged from the current healthcare facility within the preceding four weeks, who develops an onset of CDAD which requires readmission to the same healthcare facility.

2.7 Clostridium difficile Associated Disease (CDAD) Nosocomial Case (imported from different facility): The resident’s initial signs of diarrhea occur within 48 hours post-admission to a health care facility or attendance in out-patient; and the resident has been discharged from or has been in ambulatory care in a different health care facility in the preceding four weeks.

2.8 Clostridium difficile Associated Disease (CDAD) Community Acquired Case: The resident does not meet either Nosocomial definition.

2.9 Clostridium difficile Associated Disease (CDAD) Recurrent Case: Residents who have a second confirmed episode of CDAD between the end of treatment and eight weeks from the end of treatment of the first episode.

2.9.1 If the second episode is greater than eight weeks from the end of the treatment date, it is no longer considered a recurrence. It is classified as a new case.

2.9.2 If two C-difficile toxin positive specimens are separated by under two weeks, the second specimen is described as an additional test result of the original specimen and not counted as a recurrence.
2.10 **Cohorting**: Two or more residents infected with Clostridium difficile Associated Disease (CDAD) placed/roomed together to minimize their contact with other unaffected residents on the same unit.

2.11 **Contact**: An individual who may be exposed to a Clostridium difficile Associated Disease (CDAD) case in which transmission can occur.

2.12 **Contact Precautions**: Precautions and practices that include single room or at least one meter between beds in multi-bed rooms, with health care workers wearing gown and gloves for interactions that involve contact with the resident or the resident’s equipment and environment.

2.13 **Date of Diagnosis**: Date and time of the first specimen positive for C-difficile toxin.

2.14 **Facility Approved Disinfectant**: A disinfectant cleaner that has been approved by the facility or organization.

2.15 **Hand Hygiene**: A general term that applies to handwashing, antiseptic handwash, antiseptic hand rub, or surgical hand antisepsis.

2.16 **Handwashing**: The process of washing hands with soap (plain or antimicrobial) and water.

2.17 **Health Care Worker (HCW)**: An individual who provides care to patients/clients/residents in the healthcare workplace, e.g. nurses, physicians, allied health workers, and emergency responders.

2.18 **Resident**: An individual who resides in a long-term care facility/interim care.

2.19 **Loose stool**: Stool that takes the shape of the container in which it is held.

2.20 **Routine Practices**: A set of infection control precautions and practices used for all direct care regardless of the presumed infection status or diagnosis.

2.21 **Terminal Cleaning**: Thorough cleaning of all surfaces and equipment within the room with a facility approved disinfectant. This will include spot cleaning of visible soil on walls and removal of privacy curtains.
3.0 OPERATIONAL DIRECTIVES:

3.1 Residents with symptoms of CDAD shall be placed on Contact Precautions in addition to Routine Practices.

3.2 The diagnosis of CDAD does not preclude transferring patients from acute care to personal care homes/long term care facilities (PCH/LTCF) or movement to and from PCHs/LTCFs.
   3.2.1 Patients, in hospital, who are acutely ill with CDAD should have transfer postponed until the condition has stabilized.

3.3 Residents with CDAD shall have their status noted on their health record.

3.4 Individuals who have CDAD and are being transferred must have the CDAD status clearly documented on the Regional Health Authorities of Manitoba Transfer Referral Form (Appendix A). Negative toxin results are not required before transfer.

3.5 The Manitoba Health Communicable Disease Control Unit (CDC) Investigation Form for Clostridium difficile-Associated Diseases (CDAD) (Appendix B) shall be completed for each confirmed case of CDAD infection diagnosed at the facility. Outcomes must be reviewed at 30 days post diagnosis and the investigational form must be returned to the CDC Unit of Manitoba Health.

4.0 PROCEDURE:

4.1 In the event a Resident has diarrhea and CDAD is suspected the registered nurse will:
   4.1.1 Notify the attending physician of the Resident with diarrhea suspected of CDAD.
   4.1.2 Notify the Infection Control Practitioner or designate.
   4.1.3 Send an unpreserved liquid stool specimen for C. difficile toxin testing, to the laboratory, as soon as possible after suspected clinical diagnosis. If transport is more than two hours, sample must be refrigerated.
4.1.3.1 Stool sample must be liquid or loose stool, which takes the shape of the container. The container must be 1/3 full (25 ml) without preservatives. 
Note: A maximum of two stool samples per diarrhea episode (collected on separate days) will be tested.

4.1.3.2 Formed stool is not an appropriate specimen and should not be sent.

4.2 The registered nurse will initiate Contact Precautions in addition to Routine Practices.

4.2.1 Resident Placement, Cohorting & Activities

4.2.1.1 A single room is preferred if the Resident is incontinent (i.e.: feces that cannot be contained) or the resident has poor hygiene that might lead to contamination of the surrounding environment.
- The room door may remain open.
- If the room does not have a toilet and hand washing facilities dedicate an individual commode for that Resident.

4.2.1.2 If a single room is not possible and the room is a shared room maintain spatial separation of at least one meter between infected Resident(s) and other residents and their visitors.
- Roommates should not have serious medical conditions (i.e.: end stage renal disease, cancer or immunodeficiency) that would put them at high risk of CDAD if transmission of C. difficile occurred.
- Roommates and their visitors should have the ability to comply with the precautions. Roommates and all visitors must be made aware of, and should comply with any precautions that are being taken.

An individual commode must be designated to the symptomatic Resident.

4.2.1.3 If cohorting, consult the Infection Control Practitioner regarding this decision. Residents’ known to be infected with the same organisms may be grouped together unless transmission of different strains is a concern.
4.2.1.4 Consult the Infection Control Practitioner regarding the Resident’s activities.

   Participation in activities involving food preparation such as baking groups should be restricted; however, activities do not need to be restricted if feces can be contained and hands washed with soap and water.

4.2.2 Hand Hygiene

4.2.2.1 Use soap and water for hand hygiene. Alcohol based hand rubs are not effective against C.difficile spores.

4.2.2.2 Follow Routine Practices.

4.2.3 Gloves

4.2.3.1 Wear gloves when:

   • Entering the resident’s single room or designated bed space in a shared room.
   • Contact with infected material or any object in the resident’s room.
   • Resident care

4.2.3.2 Remove gloves before leaving the resident's room or bed space when tasks are completed. Wash hands immediately after removing gloves.

4.2.4 Gowns (long sleeved)

4.2.4.1 Wear gowns if:

   • Clothing or forearms will have direct contact with the resident.
   • Clothing or forearms will be in direct contact with frequently touched environmental surfaces, objects or infectious materials.
   • There is increased risk of environmental contamination i.e.: resident is incontinent of feces, diarrhea or drainage from a colostomy or ileostomy that cannot be contained.

4.2.4.2 Remove gown before leaving the resident's room or bed space.

4.2.5 Equipment

4.2.5.1 Dedicate equipment for individual Resident use.

4.2.5.2 Identify and store all equipment/supplies designated for individual Resident use in a manner that prevents use by or for other residents.
4.2.5.3 If equipment cannot be dedicated, it must be cleaned and disinfected with a Facility Approved Disinfectant before use on another Resident.

4.2.6 Linen
4.2.6.1 Follow Routine Practices

4.2.7 Dishes
4.2.7.1 Follow Routine Practices

4.2.8 Needles and Syringes
4.2.8.1 Follow Routine Practices

4.2.9 Waste Disposal
4.2.9.1 Follow Routine Practices

4.2.10 Resident Health Record and Personal Documents e.g. Wills, Voting
4.2.10.1 Follow Routine Practices

4.2.11 Environmental Cleaning/ Housekeeping
4.2.11.1 Clean twice daily and when visibly soiled, all horizontal surfaces in the room and frequently touched surfaces i.e.: side rails, call bells, light cords, door handles, commodes and bathroom areas.

4.2.11.2 Cleaning must be thorough:
- Work from clean items and surfaces to dirty ones.
- Apply Facility Approved Disinfectant directly to all cleaning cloths ensuring full saturation prior to cleaning surfaces. Do not spray or squirt disinfectant onto the surfaces to be cleaned.
- Change cleaning clothes and mop heads frequently. Avoid putting used cloths into the disinfectant solution to reduce contamination of disinfection solution and recontamination of cloths.
- Use disposable toilet brushes for toilet cleaning.
4.2.11.3 Do a thorough Terminal Cleaning when Contact Precautions are discontinued or the Resident is moved or transferred. Change the privacy curtain. Wipe down window coverings including pull cords, if visibly soiled take them down and launder. Clean wipeable light cords and bells. Change cloth or string light cords and bell. Discard disposable items including paper towels and toilet tissue. Discard toilet brushes. Immediately clean soiled equipment or furnishings with a Facility Approved Disinfectant. Launder mop heads before reusing them.

4.3 Duration of Additional Precautions
4.3.1 Consult the Infection Control Practitioners regarding discontinuing Contact Precautions.
4.3.2 Contact Precautions may be discontinued when the resident has had at least 48 hours of normal stools and Terminal Cleaning completed.

4.4 Reporting Requirements
4.4.1 The infection control practitioner/designate shall complete the Manitoba Health CDC Unit Investigational Form for CDAD (Appendix B) for each confirmed case diagnosed including recurrent cases. Review the outcomes at 30 days post diagnosis. Send the investigational form to the Manitoba Health CDC unit fax: (204) 948-2040.

4.5 Transfer Between Facilities
4.5.1 The diagnosis of CDAD does not preclude transferring patients from acute care to personal care homes/long-term care facilities (PCH/LTCF) or movement to and from PCHs/LTCFs.
4.5.2 Patients/residents who are acutely ill with C. difficile should have transfer postponed until the condition has stabilized.
4.5.3 Negative culture/toxin results are not required for transfer.
4.5.4 Document the resident’s status on his/her health record and clearly document the CDAD diagnosis on the Regional Health Authorities of Manitoba Transfer Referral Form (Appendix A).
4.5.5 Notify the receiving facility of the CDAD status prior to the transfer.
4.5.6 If the Resident is considered infectious, inform the transferring service (ambulance, medi van) that Contact precautions should be used during transfer.

4.6 All current antibiotic therapy should be discontinued if possible and antidiarrheal agents such as Imodium, Codeine and Morphine should not be used until CDAD has been excluded. However, the decision to discontinue all current antibiotic therapy and not to use antidiarrheal agents is a medical decision.

5.0 REFERENCES:

5.1 Manitoba Health, Communicable Disease Control Unit (September 2006). Communicable Disease Management Protocol Clostridium difficile Associate Disease (CDAD).

5.2 Health Canada, Laboratory Centre for Disease Control. (July 1999). Routine Practices and additional Precautions for Preventing the Transmission of Infection in Health Care.

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