



Educational Bulletin

C. difficile



WHAT IS C. difficile?

C. difficile (Clostridium difficile) is a spore forming bacteria that can cause diarrhea and other gastrointestinal illness. C. difficile causes approximately 10% of cases of hospital-acquired diarrhea. It can also be part of the normal flora of the large intestine and not cause any symptoms. When a confirmed outbreak of C. difficile associated diarrhea (CDAD) occurs in a Healthcare setting, interest in finding a disinfectant that is effective against C. difficile is greatly increased.

WHAT IS THE DIFFERENCE BETWEEN C. DIFFICILE COLONIZATION AND C. DIFFICILE-ASSOCIATED DISEASE?

C. difficile colonization

- Resident/Patient exhibits NO clinical symptoms
- Resident/Patient tests positive for C. difficile and/or its toxin
- More common than C. difficile-associated disease

C. difficile-associated disease

- Resident/Patient exhibits clinical symptoms
- Resident/Patient tests positive for the C. difficile and/or its toxin

HOW IS C. DIFFICILE TRANSMITTED?

C. difficile is shed in feces. Any surface, device, or material (e.g. commodes, bathing tubs and electronic rectal thermometers) that becomes contaminated with feces may serve as a reservoir for the C. difficile spores. C. difficile spores are transferred to patients mainly via hands of healthcare personnel, patients and visitors who have touched a contaminated surface or item.

HOW CAN C. DIFFICILE-ASSOCIATED DISEASE BE PREVENTED IN HEALTHCARE SETTINGS?

1. Use antibiotics judiciously
2. Use contact precautions for patients with known or suspected C. difficile-associated disease
 - a. If possible isolate patient/resident and implement isolation precautions
 - b. Report when required to appropriate Health Care Agency
 - c. Post signage for PPE's (Personal Protection Equipment), and hand washing protocol at entrance to room
 - d. Institute strict hand washing protocols for staff, patients and visitors.
 - e. Use disposable gloves when entering patients' rooms and during patient care
 - f. Use gowns if soiling of clothes is likely
 - g. Dedicate equipment whenever possible
 - h. CONTINUE THESE PRECAUTIONS UNTIL DIARRHEA CEASES.



Educational Bulletin



IMPLEMENT AN ENVIRONMENTAL CLEANING AND DISINFECTION STRATEGY

- Ensure adequate cleaning and disinfection of environmental surfaces and reusable devices, especially items likely to be contaminated with feces and surfaces that are touched frequently
- Use an approved disinfectant COMPLETE 6000 and COMPLETE GEL according to label directions
- Follow the manufacturer's instructions for disinfection of endoscopes and other devices
- Review cleaning protocols with all employees and initiate a quality control program to ensure that they are being strictly followed.

If the source of the gastrointestinal illness is confirmed to be *C. difficile* it must be remembered that this organism is very difficult to kill. Enhanced cleaning efforts and procedures are needed to prevent the spread of *C. difficile* via environmental surfaces.

Steps to manage an outbreak

1 PATIENT/RESIDENT ROOM DAILY CLEANING PROCEDURES (WITH KNOWN OR SUSPECTED *C. DIFFICILE*-ASSOCIATED DISEASE).

Contact Precautions Isolation Cleaning Protocol is to be followed.

- 1.1 Prepare to enter room. Ensure you have all supplies on cart, pull cart to door entrance to prevent having to leave room for additional supplies. Ensure proper signage is posted indicating this is a contact isolation resident/patient and "Contact Precautions" must be followed by all who enter room.
- 1.2 Wash hands and put-on protective clothing and gloves.
- 1.3 Do not leave room with gown or gloves on.
- 1.4 Proceed to washroom and presoak all fixtures with approved disinfectant COMPLETE 6000 to allow maximum contact time.
- 1.5 Get cloth and disinfectant bottle to begin contact point cleaning. Remember goal is to remove spores. Frequent change of cloth sides and cloths will prevent potential redeposit and migration of spores from one area to another.
- 1.6 Contact points include door handles, light switches, call bell, bedside table and drawer handles, telephones, light cords, bed rails, grab bars, arms on chairs, bed table.
- 1.7 Proceed to wipe and clean with disinfectant all contact points and all horizontal surfaces with cloth using an organized pattern, either clockwise/or counter clockwise procedure.
- 1.8 Inspect bedside curtains and window coverings for soil. Replace as necessary.
- 1.9 Spot clean soil areas on vertical surfaces such as walls, doors and clean where necessary.
- 1.10 Empty waste. Remember to double bag. Place garbage from the room into a clean uncontaminated garbage bag.
- 1.11 Gather tools to clean washroom. Proceed to washroom. Wipe down surfaces with cloth saturated with disinfectant. Ensure to follow principles of clean to dirty. Change cloth frequently. Clean toilet bowl last with COMPLETE GEL.
- 1.12 Remove all soiled hand cloths and place into a non-contaminated laundry or garbage bag. Bag should be sealed.
- 1.13 Change gloves. Remove gloves, sanitize hands, and put new gloves on.
- 1.14 Replenish supplies in washroom and room. Toilet paper, towels and hand soap.
- 1.15 Dust mop the floor. Remove dust mop and place in clean non-contaminated garbage bag and place immediately on cart. Make sure bag is sealed.
- 1.16 Proceed to mop the floor with dedicated equipment using approved floor cleaner.
- 1.17 Remove mop head and place in a clean uncontaminated bag and place onto cart.
- 1.18 Any tools that are leaving room must be wiped down with approved disinfectant and clean rag. This includes dust handle and frame, wet mop handle, spray bottles and mopping equipment.
- 1.19 At the doorway, remove PPE in order of most contaminated to least, gloves first, gown second. Gown goes into laundry in a clean non contaminated bag or if disposable put in trash. Discard gloves in trash.
- 1.20 Once gloves are removed, wash/sanitize hands and put on fresh gloves.

Educational Bulletin



2 PATIENT/RESIDENT ROOM TERMINAL CLEANING PROCEDURES (WITH KNOWN OR SUSPECTED C. DIFFICILE-ASSOCIATED DISEASE).

Contact Precautions Isolation Cleaning Protocol is to be followed.

- Terminal cleaning is required when the patient is discharged or transferred and when Contact Precautions are discontinued.
 - The nurse will:
 - Remove or discard medical supplies
 - Empty suction bottles, discard IV bags and tubing, discard urinary catheter collection bags, empty bedpans and urinals etc
 - Remove the oxygen therapy equipment
 - Dispose of any personal articles left by the patient
 - Promptly notify the housekeeping supervisor of any problems or concerns related to the cleanliness of the isolation rooms.
- 2.1 Prepare to enter room. Ensure you have all supplies on cart, pull cart to door entrance to prevent having to leave room for additional supplies. Many of the supplies may already be in room.
 - 2.2 Wash hands and put-on protective clothing and gloves.
 - 2.3 Do not leave room with gown or gloves on.
 - 2.4 Proceed to washroom and presoak all fixtures with approved disinfectant COMPLETE 6000 to allow maximum contact time.
 - 2.5 Replace bedside curtains and inspect window coverings for soil. Replace window coverings as necessary. Soiled bedside curtains are to be placed in soiled linen bag.
 - 2.6 Get cloth and disinfectant bottle to begin contact point cleaning. Remember goal is to remove spores and surfaces must be cleaned with friction and allowed to air dry. Frequent change of cloth sides and cloths will prevent potential redeposit and migration of spores from one area to another.
 - 2.7 Contact points include door handles, light switches, call bell, bedside table and drawer handles, telephones, light cords, bed rails, grab bars, arms on chairs, bed tables.
 - 2.8 Proceed to wipe and clean with disinfectant all contact points, all horizontal surfaces and walls and doors that are head high, paying particular attention to areas in contact with hands. Clean

the windowsill. Clean the inside and outside of the patient cupboard. Wipe down blood pressure cuff, clean bedside table, telephone, over bed table, complete bed and railing, wipe call bell, clean chain from light above the bed, and remove string or tape if present.

- 2.9 Empty waste. Place garbage from the room into a clean uncontaminated garbage bag. Seal bag and place by the door.
- 2.10 Gather tools to clean washroom. Proceed to washroom. Wipe down surfaces with cloth saturated with disinfectant. Ensure to follow principles of clean to dirty. Change cloth frequently. Clean toilet bowl last using a toilet bowl brush and COMPLETE GEL. Discard toilet brush in garbage bag.
- 2.11 Remove all soiled hand cloths and place into a non-contaminated laundry or clear garbage bag. Bag should be sealed.
- 2.12 Change gloves. Remove gloves, sanitize hands, and put new gloves on.
- 2.13 Replenish supplies in washroom and room. Toilet paper, towels and hand soap must be replaced. Unused supplies are to be discarded.
- 2.14 Dust mop the floor. Remove dust mop and place in clean non-contaminated garbage bag and place immediately on cart. Make sure bag is sealed.
- 2.15 Proceed to mop the floor with dedicated equipment using approved floor cleaner.
- 2.16 Remove mop head and place in a clean uncontaminated bag and place onto cart.
- 2.17 Any tools that are leaving room must be wiped down with approved disinfectant and clean rag. This includes dust handle and frame, wet mop handle, spray bottles and mopping equipment.
- 2.18 At the doorway, remove PPE in order of most contaminated to least, gloves first, gown second. Gown goes into laundry in a clean uncontaminated bag or if disposable put in trash. Discard gloves in trash.
- 2.19 Once gloves are removed, wash/sanitize hands and put on fresh gloves.
- 2.20 Discard garbage bags. Bring linen bags to the soiled linen room or soiled compartment.
- 2.21 Rags, mopheads, cleaning equipment are to be returned to housekeeping for laundering and storage. Any equipment such as buckets/wringers/carts should be cleaned before storage with a disinfectant cleaning solution.

References :

Institut national de santé public du Québec - <http://www.inspq.qc.ca/english/>



Educational Bulletin

DISINFECTANTS FOR USE ABOVE THE FLOORS

- COMPLETE 6000
- COMPLETE 6000 WIPES
- Other approved Disinfectants (please verify with Infection Control before using any new disinfectant)

If using a pre-saturated disinfectant cloth/towelette, please verify with Infection Control prior to start of use.

CDC and Health Canada recommend the use of bleach to clean frequently touched contact points when *C. difficile* is present. Hypochlorites should be used at 5,000 ppm concentration or more.

DISINFECTANT FOR USE ON TOILETS

- COMPLETE GEL



Summary

	In Case of a <i>C. difficile</i> Crisis	
	Daily Cleaning	Terminal
Floor Cleaning	VERT-2-GO Oxy Neutral Cleaner* or VERT-2-GO All Purpose Cleaner*	VERT-2-GO Oxy Neutral Cleaner* or VERT-2-GO All Purpose Cleaner*
Bed Sanitation	COMPLETE 6000	COMPLETE 6000
Bed Accessory Sanitation	COMPLETE 6000	COMPLETE 6000
Washroom Cleaning	COMPLETE 6000	COMPLETE 6000
Toilet Cleaning	COMPLETE GEL	COMPLETE GEL

* Floor surfaces soiled with feces and organic materials need to be cleaned and then disinfected with COMPLETE 6000 before general floor cleaning.