Answers to frequently asked questions about C. difficile at the Jewish General Hospital
1. CLOSTRIDIUM DIFFICILE

What is *Clostridium difficile*?

*C. difficile* is a germ that has been around for a long time and usually lives in harmony with other types of bacteria normally found in the human intestine. In fact, many people carry this bacterium without experiencing health problems or requiring treatment.

What causes *C. difficile* associated diarrhea (CDAD)?

When a patient is treated with antibiotics, many normal bacteria are no longer present. *C. difficile* jumps in to fill this “vacancy” and, while multiplying, creates a toxin that causes diarrhea.

How is *C. difficile* treated?

Special antibiotics are prescribed. However, each case must be evaluated by a doctor who determines the exact method of treatment.

What is the best way to prevent the spread of *C. difficile*?

Conscientious hand-washing is the first and best line of defence. You should wash your hands:

- after going to the toilet
- when hands are visibly dirty
- before and after taking care of a person infected with *C. difficile*
- after any contact with the patient’s environment
- after accidental contamination with blood or other biological fluids
- before preparing, handling, serving or eating food
- after coughing, sneezing or blowing your nose
What is the proper way to wash one’s hands?

Wet hands thoroughly. Lather well for at least 10 seconds, paying special attention to fingertips and the areas between fingers and thumbs. Rinse well. Dry hands thoroughly with a paper towel, which should be used to close the water tap. If using an alcohol waterless hand hygiene product, rub hands until dry. However, if hands are dirty, use soap and water instead.

2. SYMPTOMS AND RISKS

What are the symptoms of CDAD?

In order to develop CDAD, you must have taken antibiotics within the past 30 days. You may develop:

- **Mild infection:** 3 or fewer bowel movements per 24-hour period, no fever.

- **Moderate infection:** 4 to 8 bowel movements per 24-hour period, or fever of 37.5°C to 38.5°C, or marked abdominal pain, or elevated white blood cell count.

- **Severe infection:** 9 or more bowel movements per 24-hour period, or lower gastrointestinal bleeding, or fever of 38.6°C or higher, or extremely elevated white blood cell count, or overwhelming infection due to colitis.

Do hospital employees face a greater risk of acquiring CDAD?

Hospital employees cannot acquire CDAD unless they are taking or have recently taken antibiotics. Any employee who has recently taken antibiotics and has diarrhea should report to Health Services.

Do pregnant women face a higher degree of risk?

Pregnant women are not at higher risk of acquiring CDAD.
3. TRANSMISSION

How does C. difficile spread?
The germ spreads through physical contact with the stool, hands or other body parts of a person who has diarrhea. The germ may also spread indirectly through physical contact with the contaminated environment.

When an employee has been treated for C. difficile, how long is that person obligated to stay off the job?
It is recommended that employees with diarrhea of any type, including CDAD, return to work only after the symptoms have resolved.

When an employee has been treated for C. difficile and returns to work, should staff take precautions before and/or after sharing office equipment such as a computer keyboard?
No special precautions are required. As always, good hand hygiene is recommended for everyone.

When an employee has been treated for C. difficile and returns to work, should staff take precautions before and/or after using the same washroom as that employee?
No special precautions are required. As always, good hand hygiene is recommended for everyone. If the washroom is soiled, Housekeeping should be contacted.

4. ISOLATION

At what point is isolation required for a patient with a C. difficile infection?
At the present time, patients are isolated at the first sign of diarrhea if they have had antibiotics within the past 30 days and there is no other obvious reason for the diarrhea.
At what point is it safe to discontinue isolation for a patient who had been infected with *C. difficile*?

At the present time, isolation of CDAD patients is discontinued 72 hours after their symptoms have resolved, unless they are incontinent and fecal soiling is likely.

What special precautions must staff take in caring for a patient who is isolated with a *C. difficile* infection?

Staff should use “barrier” precautions—i.e., gloves, gowns and good hand hygiene. These precautions apply to staff caring for CDAD patients, as well as for “rule out CDAD” patients (patients being observed in order to rule out the possibility of a CDAD infection).

What precautions, if any, are needed for a patient who is sharing a room with someone who is suspected of having (but not confirmed as having) *C. difficile*?

A priority is to use single rooms to isolate symptomatic patients with diarrhea. However, if this is not possible, patients are isolated/cohorted with similar types of patients—i.e., CDAD patients with other CDAD patients, “rule out CDAD” patients with other “rule out CDAD” patients. Each of these cohorted patients should use his/her own commode, avoid sharing toilet facilities with other patients, and practice good hand hygiene.

5. SUPPLIES AND EQUIPMENT

In a *C. difficile* situation, how often and in what manner are supplies and equipment (e.g., commodes, bedpans, IV poles) cleaned?

Whenever possible, equipment (e.g., IV poles, stethoscopes) should be dedicated to one room for symptomatic patients with diarrhea. This equipment should be cleaned and disinfected whenever removed from that room. Commodes should be cleaned and disinfected after each use. The suggested cleaning product is based on the manufacturers’ recommendations and is usually a quaternary ammonia or alcohol.
How should patients’ personal supplies (e.g., toilet paper) be disposed of or, when appropriate, cleaned?

Whenever possible, equipment (e.g., IV poles, stethoscopes) should be dedicated to one room for symptomatic patients with diarrhea. This equipment should be cleaned and disinfected whenever removed from that room. Commodes should be cleaned and disinfected after each use. Personal supplies should go home with the patient or be thrown out, if disposable.

How should utility rooms be organized after items are brought out of the room of a patient with \textit{C. difficile}?

The concept of “clean” and “dirty” utility rooms remains the same, whether patients have CDAD or any other disease. Only clean items should be in “clean” utility rooms, and only dirty items should be in “dirty” utility rooms.

6. \textsc{housekeeping}

What procedures are followed in cleaning the occupied room of a \textit{C. difficile} patient?

- **General**: The Housekeeping employee, dressed in appropriate protective clothing, leaves the Housekeeping cart safely outside the patient’s room and takes in only the materials needed for cleaning the room.

- **Waste disposal**: General and biomedical waste containers in the patient’s room and washroom are emptied using precautionary procedures.

- **Washrooms**: Each washroom is cleaned twice daily with disposable cloths or with red rags and disinfectant cleaner. In the evenings, a Housekeeping attendant uses a two-step procedure on all \textit{C. difficile} washrooms: First, the entire washroom is cleaned with a disinfectant, and then it is cleaned again with bleach.

- **Furniture and accessories**: Blue rags or disposable cloths and disinfectant cleaner are used on all surfaces, including walls, switches, door knobs and anything else within reach of the patient’s hands.
• **Floor**: A micro-fibre dustmop is used on the entire floor. Any dirt stuck to the floor is loosened with a scraper and is then collected with a dustpan and brush. Once a week all of the furniture is moved so that the entire floor can be washed and all of the baseboards wiped.

• **Inspection**: All rooms containing *C. difficile* patients are inspected three times a week to ensure that cleaning is done properly.

### What procedures are followed in cleaning the room of a *C. difficile* patient who has been discharged?

• **General**: As above.

• **Waste disposal**: As above.

• **Washroom**: Spot-wash walls using a disposable cloth and disinfectant cleaner. Clean all remaining washroom surfaces first with a disposable cloth and disinfectant cleaner, and then with a disposal cloth presoaked with javel.

• **Bedside curtains, inside windows and walls**: Remove any curtains or drapes. Wash venetian blinds, inside window and walls.

• **Bed**: Spray and wipe top, bottom and sides of mattress. Spray and wipe entire pillow. Clean every other surface of the bed.

• **Furniture and accessories**: Clean every surface, including inside surfaces of the closet and beside table.

• **Floor**: A micro-fibre dustmop is used on the entire floor. Furniture is moved as necessary, and the floor is washed thoroughly with disinfectant cleaner, section by section, including the area under the bed.

### When an employee has been treated for *C. difficile* and returns to work, is there any need for the staff washroom which is used by this employee to be cleaned more often or more thoroughly than usual?

Washrooms used by employees are cleaned on a regular basis. If the washroom is soiled, Housekeeping should be informed.
7. GENERAL QUESTIONS

“Should I cancel or postpone elective surgery to avoid possible exposure to *C. difficile*?”

The timing of elective surgery is always a balance between the patient’s needs and the possible complications that could occur during or after surgery. Infections like CDAD are not the only considerations in this decision. The patient’s need for surgery (elective or urgent), the patient’s nutrition status, his/her underlying diseases (e.g., diabetes, lung disease), medications and many other factors affect the patient’s ability to recover. CDAD is but one unfortunate complication. At the present time, 1 in 40 patients develops CDAD due to his/her hospitalization and antibiotic use. The benefits and risks of any surgery should be discussed with the surgeon and/or his/her staff.

“What kinds of people are at greatest risk of developing a *C. difficile* infection?”

The only people at risk of developing CDAD are those who have taken antibiotics. The majority of CDAD occurs in patients who are in the hospital, or who have recently been hospitalized. Anyone who has not taken antibiotics cannot develop CDAD. In addition, elderly people or those with weakened immune systems (from chemotherapy, radiotherapy, some drugs) are at higher risk of getting CDAD with antibiotics.

“Should I be concerned about exposing an otherwise healthy child to someone with a *C. difficile* infection?”

Healthy children, like healthy adults, cannot get CDAD if they have not recently taken antibiotics. As well, even children who take antibiotics are much less likely to get CDAD, when compared with adults or the elderly. Children are also much better at tolerating CDAD and responding to CDAD therapy.

“When I visit someone who has *C. difficile*, can I become a carrier without actually developing symptoms?”

Anyone who spends a considerable amount of time in the hospital may come into contact with *C. difficile* spores and thus become a carrier. However, many people in the community
may also carry this bacterium without ever coming into the hospital. The simple act of carrying this bacterium is not harmful and will not cause any disease, unless the person takes antibiotics.

“If I’m providing home care (cooking, cleaning, etc.) for someone with C. difficile, am I putting myself or others at a greater risk of infection?”

As with anyone who visits the hospital, providing home care for a person with CDAD might put you in contact with C. difficile spores, and thus you may become a carrier. However, many people in the community may also carry this bacterium without ever coming into the hospital. The act of carrying this bacterium is not harmful and will not cause any disease, unless the person takes antibiotics.

“Is there any value in taking yogurt or similar products to prevent or treat C. difficile?”

At the present time, there is no scientific evidence that taking yogurt or “live bacterial culture” capsules prior to or with antibiotics can prevent CDAD. A large study looking at this issue is currently under way at the Jewish General Hospital.

A joint effort of the Infection Prevention Unit, the Department of Nursing and the Housekeeping Department of the Jewish General Hospital. Produced by the Department of Public Affairs and Communications.

This booklet, as well as news updates and resource links related to C. difficile/CDAD, can be found at www.jgh.ca.