

Clostridium Difficile Infection (CDI)

Clostridium difficile (*C. difficile*) is a gram positive, spore-forming, anaerobic bacillus. It is widely distributed in the environment and colonizes up to 3 to 5 percent of adults without causing symptoms.

Symptoms

Symptoms range from mild diarrhea to high fever, severe cramps, explosive diarrhea, and dehydration. Severe complications include bowel perforation, septic shock, and death.

How is *C. difficile* spread?

Some strains of *C. difficile* produce spores that are able to survive for long periods on environmental surfaces and are very hard to destroy. The spread of *C. difficile* occurs when there is inadequate hand hygiene and environmental cleaning.

Prevention of transmission

In addition to routine practices, contact precautions should be initiated for any person who is considered to be at risk for CDI **at the onset of symptoms and prior to** the receipt of *C. difficile* testing results. Meticulous hand hygiene practices with either soap and water or an alcohol-based hand rub can reduce the risk of transmission.

Treatment

If the patient is on antibiotic therapy (except for CDI treatment), it should be discontinued if the patient's condition permits.

Metronidazole is the recommended first line therapy for mild to moderate CDI. Vancomycin is recommended for severe cases or if metronidazole is ineffective. Recurrent episodes of CDI may be treated with the same antibiotics used initially.

Recurrence of CDI is common and occurs in about 30 percent of cases.

Cure

Contact precautions can be discontinued when the client has had at least 48 hours without symptoms of diarrhea (e.g., formed or normal stool for the individual).

Retesting for *C. difficile* toxin is not necessary to confirm treatment success and should not be done. Toxin may be detectable long after clinical symptoms have resolved.

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Collection of specimens for laboratory testing

- Specimens should be collected as soon as possible after the onset of symptoms and **MUST** be loose or watery (conforms to shape of container).
- If the sample does not go directly to the laboratory, refrigerate and transport within 48 hours.
- A single negative test should not be relied on to rule out *C. difficile* diarrhea. If a single test is negative, a second specimen should be sent.
- Testing for *C. difficile* should not be done in children under the age of one year, as it is normal bacteria in this age group.

Terminal cleaning recommendation

- Before starting to clean the room, remove privacy curtains, window curtains, and all equipment (i.e. suction container, wheelchair, medical supplies) from room and send for reprocessing.
- Wash walls and floor with hospital grade disinfectant.
- Clean and disinfect all beds, bedside tables, over-bed tables, mattresses, telephones, call bells, light switches, TV remote controls and door knobs.
- Bathrooms must be cleaned and disinfected (consider using a sporicidal cleaning agent in the bathroom on appropriate surfaces), including taps, toilet, and sturdy-grip poles.
- Discard glove box, patient bar soap, toilet paper, toilet brush, paper towels, and sharps container.