



***Clostridium difficile* (C.diff)**

What is C.diff and why is it important? *Clostridium difficile* (C.diff) is a gram positive, anaerobic, toxin-producing, spore-forming bacteria and the leading cause of infectious diarrhea in healthcare settings. C.diff infections are associated with increased morbidity, mortality, length of hospitalization, and healthcare costs.

How is C.diff transmitted? C.diff is shed in feces and most commonly acquired through the fecal-oral route. C.diff must be ingested or otherwise introduced to the GI tract (via rectal procedures or thermometers) to cause infection. Because C.diff forms spores, it has an uncanny ability to contaminate the environment. Without proper cleaning and disinfection, C.diff can persist in the environment for months. Accordingly, the environment plays a key role in the transmission of C.diff.

What prevention measures are recommended to prevent the transmission of C.diff in a healthcare facility? Standard precautions are required for all patients in all healthcare facilities. Current guidelines recommend that facilities take additional precautions to control C.diff when logistically feasible. Enhanced prevention measures include:

- Hand hygiene with soap and water – Alcohol-based hand sanitizers are not effective at removing C.diff spores from hands. While caring for a C.diff patient, healthcare workers and visitors should clean their hands with soap and water.
- Contact precautions – To reduce the probability of contamination of hands and clothes, healthcare providers should gown and glove while caring for C.diff patients.
- Room bleach cleaning – As previously discussed, C.diff spores readily contaminate the environment. As such, cleaning the room with a 1:10 dilution of bleach has been shown to greatly reduce the prevalence of C.diff in the environment as compared to standard detergent cleaners.
- Private room – When possible, it is recommended to place C.diff patients in private rooms to prevent spreading C.diff to a roommate.

How long should a patient or an employee with C.diff be restricted from work or group activities? When possible, a person with active diarrhea caused by a C.diff infection should be restricted from work or group activities for 48 hours after diarrhea has resolved. A negative test is NOT required for an individual to be cleared to work or participate in group activities.

Is it required to report cases of C.diff to the health department? Individual cases of C.diff are not reportable in the State of Michigan. In the event of a suspected outbreak, facilities (e.g. hospitals, nursing homes, and schools) should notify their local public health department. A C.diff 'outbreak' is defined as 3 or more epidemiologically-linked, culture-confirmed cases.

Quick Tips:

- Only test for C.diff in patients with watery diarrhea. C.diff tests should not be performed on formed stool.
- A person may carry C.diff asymptomatically. These persons do not need to be in isolation or restricted from work or activities.
- Asymptomatic carriers of C.diff do not need to be treated or decolonized. In fact, antibiotics may disrupt the beneficial gut microbiota and contribute to a symptomatic C.diff infection.
- Repeat testing of patients is also not recommended. A patient does not need to have a negative test to be considered 'cured'. A patient is considered cured 48 hours after resolution of symptoms.

References: http://www.cdc.gov/HAI/organisms/cdiff/Cdiff_faqs_HCP.html
<http://www.cdc.gov/HAI/pdfs/cdiff/Cohen-IDSAs-SHEA-CDI-guidelines-2010.pdf>

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