

HEALTH ALERT

Office of Developmental Programs

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Office of the Medical Director

Clostridium Difficile or C. diff

Clostridium Difficile or C diff has been in the news recently because of outbreaks in multiple US and Canadian hospitals resulting in significant illness and even death. It is one of the few “hospital acquired infections” or infections that people typically get when they are in the hospital that have increased rather than decreased over time. In addition, there have been outbreaks in people who have not been hospitalized. Many outbreaks are related to increased virulence or the increased ability of the C diff strains to cause disease.

What is Clostridium difficile or C diff?

C diff is a bacterium that causes inflammation of the colon or large bowel. This is called colitis or sometimes, in the case of C diff, pseudomembranous colitis. C diff infections are related to the use of antibiotics to treat other infections. Typically, what happens is the antibiotic not only kills the bacteria causing the infection, but also kills the normal bacteria in the gut. When the normal bacteria die, this disrupts the balance of bacteria in the gut and allows the C diff bacteria to grow causing colitis. People can get C diff in their gut when exposed to it in the hospital. Not everyone who has C diff in their gut will develop symptoms of inflammation. This is referred to as colonization; meaning that they have C diff in their gut, but no symptoms of infection. A small number of people are colonized with C diff outside of the hospital.

What are the symptoms of C diff?

Pseudomembranous colitis related to C diff primarily causes watery diarrhea. This may be associated with nausea, loss of appetite, fever or abdominal pain. Some people have flu-like symptoms related to C diff while others may have symptoms that are similar to inflammatory bowel disease. Others have no symptoms, while some have life-threatening symptoms.

Who is most affected by C diff?

C diff infections are usually associated with the use of antibiotics, especially those that kill a variety of different bacteria rather than those that target specific ones. Most people affected by C diff have either been inpatient in a hospital or had a recent procedure like surgery at a hospital. Another risk is treatment with proton pump inhibitors used to treat GERD (gastroesophageal reflux disease) and ulcers. Generally C diff affects elderly people who are in poorer health more than young healthy people, but anyone can acquire

C diff. Having a chronic health condition puts people at higher risk of more severe disease and higher risk of dying from C diff infection.

How is C diff spread?

C diff bacteria are found in stool. They can live on surfaces like toilets, sinks, etc. for a long time. They even can live in the soil of plants. Usually C diff is passed on the hands of caregivers, including hospital workers, that have come in contact with the spores of the bacteria.

How is C diff treated?

There are two steps to the treatment of C diff infections in addition to supportive care related to diarrhea. The first is to discontinue the antibiotic that lead to the infection if the person is still taking it. The second is to treat with an antibiotic that will target and kill the C diff bacteria.

How can you prevent C diff?

Hand washing is the most effective way to prevent the spread of C diff. In the hospital setting soap and water is more effective than alcohol based hand cleaners. Gloves may also help prevent the spread. Many hospitals do not allow plants with soil in patient rooms since C diff can live in the soil.

What should you do if you think that people you know might have C diff?

If you think that you or someone you know might have C diff, then contact the primary health care provider.

Where can you get more information about C diff?

There are many sources of information about C diff. Below are a few references that you can read for additional information.

1. www.cdc.gov/HAI/organisms/cdiff/Cdiff_infect.html
2. <http://www.health.gov.on.ca/english/public/pub/disease/pdf/cdifficile.pdf>
3. http://en.wikipedia.org/wiki/Clostridium_difficile
4. http://www.medicinenet.com/clostridium_difficile_colitis/article.htm