

***C. difficile* Disease in Our Health Care Settings**

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As legal nurse consultants we review many cases that involve *Clostridium difficile*-associated disease (CDAD). The incidence of this disease has doubled in the last decade primarily in patients 65 years of age or older and living in a nursing home or long term care facility. Although prevention of acute *C. difficile* infection is considered a multidisciplinary issue, nurses, typically the primary care giver, often shoulder the burden of preventing the spread of *C. difficile*.

Most people are unaware of the potential life-threatening danger that improper treatment of an acute *C. difficile* infection can cause, including severe diarrhea leading to rapid dehydration, kidney failure, bowel perforation, toxic megacolon, and even death.

What is *Clostridium difficile* (*C. difficile*)?

C. difficile, often called "C. diff," is a bacterium that can cause symptoms ranging from diarrhea to life-threatening inflammation of the colon. Illness from *C. difficile* most commonly affects older adults in hospitals or in long term care facilities and typically occurs after the use of antibiotic medications. Physically stressful events, such as surgery (typically involving the stomach or bowels), can likely lead to an imbalance among the type and quantity of bacteria in the intestine or can interfere with the intestine's intrinsic defense mechanisms, which in turn allows *Clostridium difficile* infection as well as colitis to develop.

Risk Factors for *C. difficile*:

The majority of *C. difficile* cases occur in health care settings, where germs spread easily, antibiotic use is common and people are especially vulnerable to infection. In hospitals and nursing homes, *C. difficile* spreads mainly on the hands of caregivers, but also on cart handles, bedrails, bedside tables, toilets, sinks, stethoscopes, thermometers—even telephones and remote controls.

Complications of *C. difficile* can have Fatal Consequences

C. difficile is not always diagnosed correctly. Patients receiving large doses of antibiotics and/or cancer drugs can have large symptoms of acute *C. difficile* infection that are mistaken for adverse reaction to the medicine. Diarrhea occurs in 20% of patients receiving broad-spectrum antibiotics; about 20% of these diarrheas are due to *C. difficile*. Recently, hyper-virulent fluoroquinolone-resistant strains have emerged causing an increase in the incidence and severity of *C. difficile* infections, including fulminant *C. difficile* colitis that can lead to colectomy or even death. Even with the use of all available laboratory techniques, the cause of 20 to 40% of all acute *C. difficile* infections remain undiagnosed! (Cecil Medicine 23rd Edition. Lee Goldman, M.D. and Dennis Ausiello, M.D. copyright 2008, p. 1022)



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"In recent years, *C. difficile* infections have become more frequent, more severe and more difficult to treat. Each year, tens of thousands of people in the United States get sick from *C. difficile* in our nursing homes."

(www.mayoclinic.com/health/c-difficile/DS00736)

"The risk for becoming infected with *C. difficile* is 10 times greater for people age 65 and up and living in a nursing home or long term care facility."

(www.mayoclinic.com/health/c-difficile/DS00736/DSECTION=risk-factors)

C. difficile (cont.)

C. difficile infection can lead to a series of complications that can become life-threatening including:

- **Dehydration.** Severe diarrhea can lead to a significant loss of fluids and electrolytes. This makes it difficult for patients to function normally and can cause blood pressure to drop to dangerously low levels.
- **Kidney Failure.** In some cases, dehydration can occur so quickly that kidney function deteriorates (kidney failure).
- **Bowel Perforation.** This results from extensive damage to the lining of the large intestine. A perforated bowel can spill bacteria from the intestine into the abdominal cavity, leading to *peritonitis*, a life-threatening infection.
- **Toxic Megacolon.** In this condition, the colon becomes grossly distended when it's unable to expel gas and stool. Left untreated, the colon can rupture, causing bacteria from the colon to enter your abdominal cavity. A ruptured colon requires emergency surgery and may be fatal.

Prevention

The two principles of prevention are avoidance of unnecessary use of antibiotics, particularly those that are implicated in this disease, and infection control. Patients with this disease should be in single rooms with bathroom facilities if possible. Careful attention needs to be paid to hand washing with soap and water. The use of alcohol hand gels is not recommended during outbreak conditions. Every facility should have an infection control policy in place for staff caring for infected *C. Diff* patients. This policy will indicate proper technique and precautions required to prevent the spread of this bacteria.

Medical cases can be very complex. Our patients are presenting much sicker than in the past, living longer and with multiple medical conditions. A legal nurse consultant can be a valuable and cost effective team member from the beginning of a new case, to assist in determining merit, identifying missing records, and developing a chronology to depict the actual chain of events and those responsible. This chronology can also be a useful tool to see the bigger picture and reveal a case's strengths and weaknesses.

As legal nurse consultants, we will identify the role that a potentially life threatening bacteria such as *C. difficile* plays in your case. For more information on building a strong case or insights into the multi-faceted Healthcare system, contact Med Law Connection, Inc.



Correct Diagnosis and Treatment of *C. difficile* Infection Saves Lives

***C. difficile* can be treated effectively if it is diagnosed early and involves the discontinuation of the implicated antibiotic, supportive care, and avoidance of antiperistaltic agents.**

When a patient presents with diarrhea it is important for the nurse to note the frequency, and consistency of the patient's stools. It is also pertinent to review their medications (many can cause this symptom) and diet (change in diet or a patient that is on enteral feedings can be prone to diarrhea). Reviewing recent/chronic medical history such as urinary tract infection or upper respiratory infection where a patient is treated with antibiotic therapy is significant as it puts them at risk for another illness such as *C. Diff*. A complete assessment with vital signs and palpation/auscultation of the abdomen is appropriate.

It is typical for nursing home patients to have a standing order for stool softeners and anti-diarrheal medications to be given as needed by the nurse. It is crucial for the nurse to be aware of the patient's overall status and provide these medications with discretion. Upon review of these cases I will see patients with the diagnosis of *C. Diff* continuing to receive their stool softeners and/or receiving an anti-diarrheal medications. This is contraindicated in such patients.

Patients experiencing diarrhea, especially the elderly can become dehydrated quickly. If someone is having frequent loose stools, it is important to report their symptoms and assessment to their physician right away.



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