



The steady hum of the florescent lights did nothing to dim the chirps and beeps of the array of equipment surrounding the seemingly immense bed. A small, fragile figure appears to sleep peacefully despite the battle being waged inside her 84 year old body. The doctor asks Samantha to step out into the hall for a moment, a concerned look on her face. "I'm afraid your mother has contracted C. diff," the doctor says with as much empathy as she can muster after another horrendous shift. Samantha's face quickly reflects a state of puzzlement, "What in the world is C. diff, my mom is just here because of a broken hip." The doctor quickly explains that C. diff is a type of bacteria that is attacking her mom from the inside. "We are doing everything we can, but I am sorry to tell you that your mother doesn't have much time."

The previous scene is getting played out more and more frequently. C. diff, *Clostridium difficile*, was typically confined to older patients in hospitals and residents in nursing homes; associated with diarrhea that responded well to conventional treatments. Unfortunately, C. diff has evolved into a form that is highly resistant to even today's most powerful antibiotics. The newer, more virulent strain of C. diff is referred to as NAP1 which produces roughly 20 times the toxins as the normal strain, overwhelming the body's immune system. This strain can cause illnesses which range from simple diarrhea to colitis to sepsis (blood poisoning) and even death.

### **Toxic strain probably in your state already**

According to the Centers for Disease Control, the most toxic strain of C. diff is becoming more widespread. 38 states have confirmed cases of C. difficile-associated disease (CDAD) with the mutant NAP1 strain:

