

RML Specialty Hospital – Hinsdale, Illinois

Reducing Hospital-Acquired Clostridium difficile Transmission Rates

Overview: RML Specialty Hospital is an 87-bed, long-term acute-care hospital that faces the same challenges many organizations face in controlling the transmission of healthcare acquired infections (HAIs), specifically, Clostridium difficile (C. difficile). RML has gone beyond the Centers for Disease Control and Prevention (CDC) and APIC recommendations to reduce the spread of HAIs. Additionally, RML remains conservative in its approach to isolating patients due to the severity of illness and the unusually high risk level of the patient population we serve. Consequently, on average, 70 percent of RML patients are in Contact Precautions (gown and glove upon entering room) at any given time.

In November 2008, an increase of healthcare acquired C. difficile transmission was noted. Initial interventions focused on reinforcing with staff the infection control strategies that were already in place. Despite this re-education and awareness training, the C. difficile rate continued to remain above RML's target levels. By the end of February 2009, the Infection Control Department determined there was a need to move beyond traditional infection control strategies to stop the transmission of C. difficile, and recommended that a two-tier approach be implemented in accordance with the CDC's recommendations. The CDC's "Tier 2 guidelines" served as the basic framework. RML implemented the guidelines and then created an additional layer of defense by implementing a patient risk assessment and a new category of isolation. Patients over 65 who have had surgery, have been hospitalized greater than one week, are receiving chemotherapy or have a history of C. difficile are considered high-risk. Isolation policies were revised to incorporate these new interventions.

Additionally, a new approach to cleaning all rooms of patients in the new category of "brown dot" isolation (uncontrolled diarrhea and C. difficile isolation) was implemented. These rooms receive a second cleaning using a quaternary cleaner followed by a bleach solution to the high-touch areas around the patient (bed rails, bedside table, over-the-bed table, pillow speakers, and phones) on the second shift. The purpose of the double cleaning is to decrease the bioload of C. difficile within the patient room, thereby minimizing the risk of intra-hospital spread.

Impact: RML has taken a very aggressive approach to combating the spread of this dangerous organism. As a result of these interventions, a dramatic decrease was seen in the healthcare acquired transmission of C. difficile. RML's healthcare acquired C. difficile year-end rate dropped from 2.9 per 1,000 patient days in 2009 to 2.0 in 2010. As of November 2010, the healthcare acquired C. difficile rate for the hospital is 1.64.

Challenges/success factors: A primary challenge was reinforcing to nurses that in addition to relying on toxin tests for *C. difficile*, they need to be on the lookout for signs and symptoms of the bacterium. Toxin tests are not always accurate; therefore, nurses need to ensure that patients exhibiting the symptoms are isolated immediately. All clinical and environmental services staff were provided with extensive education on the revised policies and the changes to the cleaning practices. Quality measures were put in place to monitor environmental services' compliance with the newly established cleaning practices. To provide ongoing feedback and continued awareness, patient-specific infection information is provided to nursing leadership on a weekly basis. Aggregate real-time rates are posted for staff to see on the hospital's intranet page and are updated bi-weekly.

Future direction/sustainability: RML will continue using Tier-2 practices and their new policies. Infection-control leaders are looking at implementing more on-the-spot cues, for example, when to use soap and water washing versus hand sanitizer, to reinforce best practices. They will also continue to reinforce the importance of—and compliance with—the newly revised policies.

Advice to others: Preventing the spread of infection involves the whole organization. In particular, it is crucial to gain buy-in from environmental services staff. By building relationships and mutual respect, all involved staff feel like a part of the health care team. To increase compliance, education for staff is very important and must include the *reasons* for new policies and procedures. Staff need to know that they have the power to stop the spread of *C. difficile* and must be well versed in the signs and symptoms as well as their responsibilities. Finally, find innovative ways of sharing results with staff.

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