

Project Overview

Hospital-Associated *Clostridium difficile* Infections: Prevention & Policy Implications in an Acute Hospital Setting

Ali Al-Rajhi

MPH Advisor

Dr. Rada Dagher, Ph.D., MPH

Preceptors

Loretta Litz-Fauerback, MS, CIC
Lennox K. Archibald, MD, Ph.D., FRCP
(Lond), FRCP (Glasg), DTM&H

Background/Rational:

The Joint Commission's 2009 National Patient Safety Goals (NPSG) #7.03.01 mandates that hospitals identify and implement systems (i.e., policies, interventions) that reduce rates of MDROs and *C. difficile* by January 1, 2010. *C. difficile* infections (CDI) are hospital-associated and have been on the rise, causing severe intestinal ailments. Therefore, it is the hospital's responsibility to report hospital-associated infections rates and comply with national guidelines for prevention and control.

Scope:

I used Hospital A's *C. difficile* database to calculate CDI-rates among hospital units. The results will aid Hospital A to focus efforts on the most susceptible units in efforts to comply with NPSG #7.03.01.

Approach:

Study Design: Descriptive study of infection rates in 21 hospital units.

Population: 752 CDI patient cases

Variables: Incidence Rates (per 1,000 patient days) and Hospital Units

Results:

Overall, Hospital A's CDI infection rates have decreased (average: 0.88 cases per 1,000 patient days). However, nine of Hospital A's units were identified as having increasing rates of CDI. Six of these units were categorized as "Medical/Surgical" units, two were "Intensive Care" units, and one was the "Pediatric" unit.

Conclusion:

Increasing rates may be due to a combination of lack of hand hygiene, improper environmental cleaning, and/or changes in antibiotic usage. Due to study limitations, I was not able to determine causality of CDI, but only identify infection rates by unit.

Evidence-based data are the foundation on which health policies are formulated. The study results provide a starting point for Hospital A to reemphasize CDI prevention strategies, practices and policies to comply with NPSG #7.03.01.

*ALL identifiable information was removed prior to project start.

