

## Abstract

**Background:** According to the current literature, risk factors for development of a Hospital Onset Clostridium Difficile Infection (HO-CDI) include patients having any type of gastric tube as well as receiving enteral feedings. Nursing practice with manipulation of enteral tubes or feedings has been demonstrated to be a potential mechanism for accidental inoculation of c. diff spores from the environment. Handwashing has been demonstrated to be the number one prevention technique to avoid HO-CDI's.

**Objective:** This quality improvement project sought to measure the effect of an educational intervention on nurse's knowledge and attitudes towards preventing HO-CDI's, and what effect this had on HO-CDI rates in adult neurological intensive care patients.

**Methods:** This project utilized a single cohort, pre- and post-intervention design that compared nursing knowledge and attitude scores before and after the intervention as well as trending HO-CDI rates during the intervention period and comparing them to the same time block a year prior. The intervention was an evidence based educational pamphlet based on the current literature. It included risk factors, environmental hazards, as well as potential lapses in practice with enteral tubes/enteral feedings that may allow a patient to be exposed to c. diff spores.

**Results:** There were a total of 16 participants with all taking the pretest and 8 taking the posttest. Knowledge and attitude scores were summed and compared from pre to posttest. Nursing knowledge scores increased from pre to post with a paired participant knowledge score mean of 6.125 pre, and 8.0 post, demonstrating statistical significance ( $p=0.016$ ). There was no statistical significance noted in attitude score ( $p=0.068$ ), or in HO-CDI rates on the unit (pre intervention mean of 2, post intervention mean of 5).

Conclusions: This project showed that an educational intervention for intensive care nurses can be an effective method of increasing nursing knowledge on evidence-based practice HO-CDI prevention. Further assessment of longitudinal data is needed. This method should be evaluated for efficacy in other care settings.