Abstract

Clostridium difficile is an opportunistic infection that disproportionately affects patients in the oncology population. It is one of the most common nosocomial infections in the US and costs hospitals millions of dollars every year (Abughanimeh et. al, 2018). *C. diff* is an infection not only found in the inpatient setting, but 20-25% of cases are found in the outpatient setting (Butterfield, 2013). While there are protocols and standards for testing patients in the inpatient setting for *C. diff* at an urban academic medical center in Baltimore MD there is no standardized testing in the outpatient setting and testing is based on individual practitioners' preference.

This quality improvement study sought to change this by creating a toolkit standardizing a method for testing oncology patients in the outpatient setting for *C. diff* infection based on APIC, IDSA & SHAE guidelines. This toolkit was then disseminated to the outpatient oncology nurses using an online learning module. A pre-test and post-test design was used to measure nursing knowledge on the subject before and after the module. The raw number of *C. diff* test sent by the outpatient oncology clinic before and after the module was instituted was also measures. The study concluded with a sample size of six, showing no significant change in nursing knowledge using a Wilcoxon signed rank test, however when looking at the distribution scores the raw data there was an increase in the mean score of the pretest of 81.67% to 93.33% in the post test. For *C. diff* tests sent by the clinic there was a 200% increase in the rate of the number of *C. diff* tests sent by the outpatient oncology center after the learning module was completed by the nurses. In conclusion the online learning module may have increased nursing knowledge through more tests being sent and it would be beneficial to recreate this study with a larger sample size.

References

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Butterfield, S. (2013). C. difficile difficult for outpatient physicians and patients, too. *American College of Physicians Internist*.