Introduction and Background

Urinary tract infections (UTIs) are the most commonly diagnosed infection in long-term care (LTC) settings, affecting residents and subsequent hospitalizations. The National Healthcare Safety Network (NHSN) tracks the number of LTC facility-acquired UTIs in patients without an indwelling catheter. The Loeb Minimum Criteria (LMC) for UTI Diagnostic is the minimum criteria for urine culture and sensitivity testing in patients without an indwelling catheter. The LMC helps reduce antibiotic use by identifying patients who likely do not have UTIs and guides the diagnostic process.

Purpose

The aim of this study was to facilitate more accurate diagnosis and treatment of UTIs in LTC residents through improved nursing assessment and communication with providers.

Results

A 45% decrease was observed in antibiotic prescriptions for UTI between the pre- and post-intervention periods, suggesting a decline in the number of antibiotics prescribed (Figure 1). Comparison of the two groups using the Wilcoxon Rank Sum Test yielded a p-value of 0.135, indicating that the difference observed between the two groups was not statistically significant. As depicted in Figure 2, most of the SUP checklists were submitted during the first week of the post-intervention period, and the decrease in the number of completed SUP checklists was accompanied by a concomitant decrease in antibiotic prescribing for UTI. Because there are few new observations and the distributions of the data are skewed, a Spearman Rho coefficient was used (Spearman Rho=0.64818; p=0.2368) rather than a Pearson Correlation to determine the strength of this association. The alpha level was set at 0.05, and the null hypothesis (correlation coefficient=0) is accepted, indicating that although there is a moderate association between the completion of SUP checklists and antibiotic prescribing, the association was not statistically significant.

Literature Cited


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