

Improving Antibiotic Prescribing Patterns on a Long-Term Care Unit

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On my honor, I pledge that I have neither given nor received unauthorized assistance on this paper. – Christine Rooke 4/24/2020

## IMPROVING ANTIBIOTIC PRESCRIBING

### Abstract

Antibiotic misuse leads to resistant organisms, adverse effects, increased mortality and increased economic expense. Long-term care has a high rate of antibiotic misuse. This quality improvement project sought to evaluate the effects of educational sessions and a toolkit on antibiotic prescribing patterns on a long-term care unit over a 12-week time period. This project utilized a pretest-posttest design comparing number of antibiotics prescribed, beta-lactam use, and meeting guideline criteria. Data was collected retrospectively 12-weeks pre-implementation and for 12-weeks post-implementation. The intervention was educational sessions with nurses and providers overseeing the care of residents on a long-term care unit. During these sessions, a toolkit comprised of educational materials describing antibiotic use, talking points when discussing antibiotics with residents and their family, treatment guidelines, and a communication tool were discussed and given to the learners. Results of this intervention revealed a decrease in antibiotic use from 38 to 23 prescriptions. Beta-lactam antibiotics were selected the majority of time pre-implementation (55.3%) and post-implementation (39.1%). Meeting guideline criteria for antibiotic use decreased from pre-implementation (63.3%) to post-implementation (43.5%). This project discovered the use of educational sessions and a toolkit improves the overall number of antibiotics prescribed on a long-term care unit, but did not improve guideline adherence for antibiotic use. This project's limitations included continued stakeholder buy-in, data collection time frames, participant attrition and turnover, data collection methods. Limitations should be addressed to improve future outcomes and sustainability. Expanding this project's intervention to include audit and feedback, educational sessions directed towards residents and their family, and infectious disease consultation via telemedicine.

*Keywords: long-term care, antibiotic prescribing, nursing home, skilled nursing facility*