

Figure 2: Example of Nursing-Driven A3

**Form: Antimicrobial Stewardship** | Owner: Nurse Residency Program | Date: 06/28/2019 | Date Approved: 04/04/2019

**A3 Title:** Department Director Signatures | KT Scheduler | QIC:

**Clarify the Problem:**  
 Background: Antimicrobial Stewardship is a strategy for best possible clinical outcome for patients by using optimal antibiotic, dosage, and duration of each patient. The effectiveness of each antibiotic should be based on appropriate evidence and an evidence-based antibiotic (Owen, 2015).  
 Current Practice: There has been a significant increase in antibiotic use in the hospital since 2010. This practice will be based on current evidence through different systems like computerized decision support, antibiotic stewardship, and antibiotic stewardship. Antimicrobial stewardship is a coordinated strategy that optimizes antibiotic therapy to improve patient outcomes, reduce antibiotic resistance, and decrease the cost of care.  
 Problem: The current use of antibiotics in the hospital is not evidence-based. The current use of antibiotics is not evidence-based. The current use of antibiotics is not evidence-based.  
 Current Issue: 44.1% of cases in the 41 departments were able to correctly identify that antimicrobial stewardship was not a patient's best interest.  
 Goal: To improve the current antimicrobial stewardship practice in the hospital. To that extent, we will ensure that every patient is receiving the most appropriate antibiotic for their specific illness to improve outcomes. There will be a study about the role of nurse participation in antimicrobial stewardship and how to improve antibiotic stewardship in the hospital. To improve the role of nurses in antimicrobial stewardship and how to improve antibiotic stewardship in the hospital.

**Develop and Implement Countermeasures:**  
 The intervention our group will be working on the health board announcements, applying Vidura stickers to the computers that nurses use to reference when checking, collecting items and send alerts for nurses to complete things and updates, and updating the nurse's role in antimicrobial stewardship on the Scope page.

**Check Results and Process:**  
 • Use the data from the 41 departments to identify the current use of antibiotics.  
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**Standardize and Follow Up:**  
 • Antimicrobial Stewardship team will continue to work with nursing to promote quality outcomes for patients in the hospital.  
 • The practice on the Scope page will continue to be a resource for nurses to refer back to in order to understand their role in Antimicrobial Stewardship.  
 • Our group will continue on the front lines of care pathways to continue to encourage collaboration with the health care team regarding antimicrobial stewardship.

**Conclusion:** Conclusions: Commitment by unit-leaders is crucial to mitigate challenges during the development of nurse-driven projects. NRPs serve as a central location to reach a large subset of nurses and shows potential for facilitating nursing-based AS interventions. Elements were integrated, through challenges remain with maintaining a standard data collection process and analysis within and across NLN cohorts.

**Disclosures:** All Authors: No reported disclosures

**180. Leveraging the Electronic Medical Record as a Method of Antibiotic Stewardship**

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**Sesson:** P-6. Antimicrobial Stewardship: Program Development and Implementation

**Background:** Overutilization of antibiotics remains an issue in the inpatient setting. What is more, many protocols geared toward curbing improper antibiotic use rely heavily on resource- and personnel-intensive interventions. Thus, the potential for using the EMR to facilitate antibiotic stewardship remains largely unexplored.

**Methods:** We implemented a novel change for ordering certain antibiotics in our EMR: ceftriaxone, daptomycin, ertapenem, imipenem, meropenem, and piperacillin-tazobactam. When ordering one of these antibiotics, providers had to note a usage indication, which assigned a usage duration as per our Antibiotic Stewardship Committee guidelines. Pre-intervention, manual discontinuation was required if a provider did not enter a duration. The intervention was enacted August 2019 in 13 hospitals. Data was collected from January 2018 to February 2020. Antibiotic usage was reported monthly as rate per 1000-patient days. Monthly pre- and post-intervention rates were averaged, respectively. Paired samples t-tests were used to compare pre- and post-intervention rates per unit type per hospital. A p-value of less than 0.05 was considered significant. Units with minimal usage, as defined by a pre- or post-intervention mean of 0, were excluded from analysis.

Example of Ordering an Antibiotic Prior to Intervention

Figure 1: Steps of Ordering Ceftriaxone Prior to Intervention

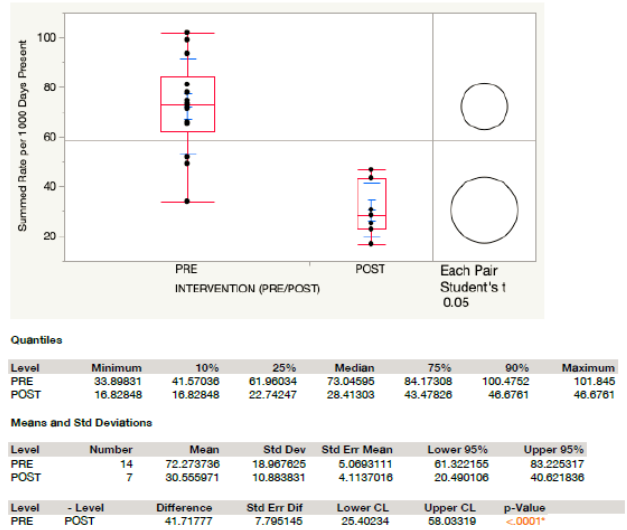
Example of Ordering an Antibiotic After Intervention

Figure 2: Steps of Ordering Ceftriaxone After Intervention

**Results:** Ertapenem was noted to have a statistically significant decrease in utilization in seven units at three hospitals. Piperacillin-tazobactam was found to have a decrease in utilization in 19 units at eight hospitals. Daptomycin was found to have a decrease in utilization in one unit. Significant decreases in the utilization of ceftriaxone, imipenem, and meropenem were not noted.

Example of Statistically Significant Decreased Utilization in Piperacillin-Tazobactam on a Medical-Surgical Unit

Figure 3: Example of Decreased Utilization of Piperacillin-Tazobactam on a Medical/Surgical Ward



**Conclusion:** Our study showed a statistically significant decrease in use of ertapenem, piperacillin-tazobactam and daptomycin using a simple built-in EMR prompt that curtails provider error. This should allow for an increased ease of integration, as the protocol does not require a host of resources for maintenance. Of note is decreased utilization of piperacillin-tazobactam and ertapenem across multiple hospitals, most notably on the medical and surgical wards. Thus, usage of the EMR without personnel-intensive protocols is a viable method for augmenting antibiotic stewardship in health systems.

**Disclosures:** All Authors: No reported disclosures

**181. Limited Effectiveness of an EMR Alert-Based Antibiotic Timeout Procedure in Solid Tumor Cancer Patients**

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