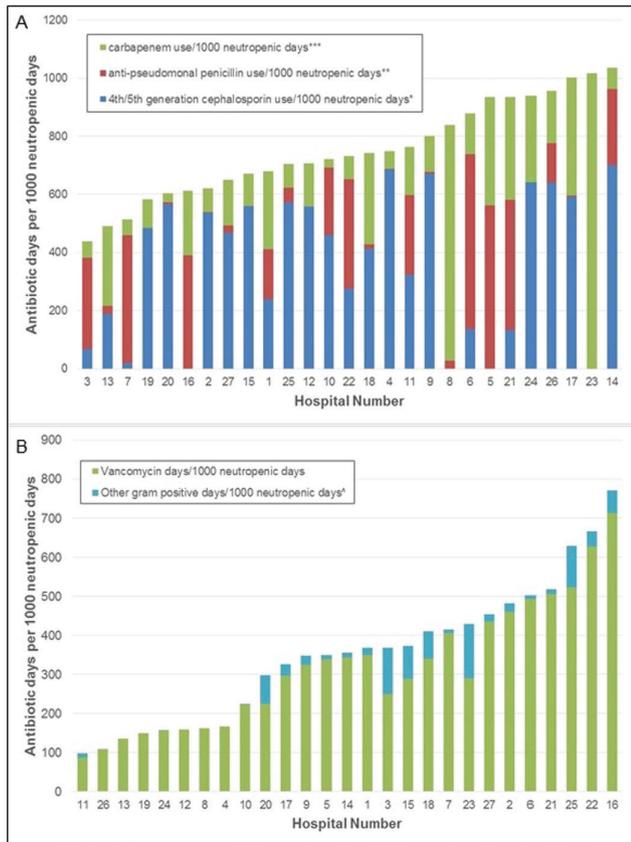
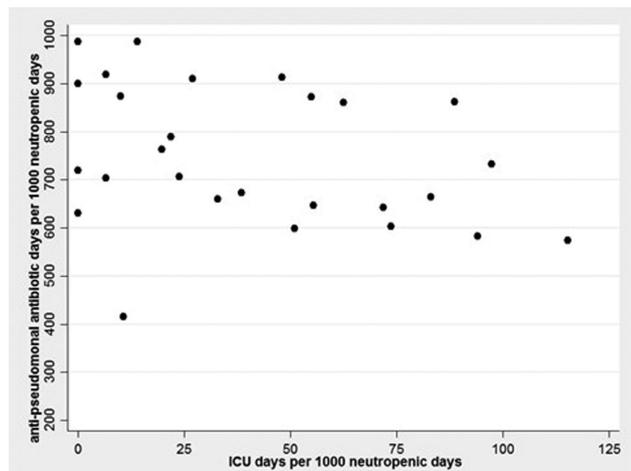


was driven by vancomycin. Gram-positive antibiotic use was moderately associated with days of ICU-level of care (spearman correlation coefficient = .55) but anti-pseudomonal antibiotic use was not (Figure 2). There was no association between days of antibiotic exposure and 30-day mortality.

**Conclusion.** Among a homogenous population of children undergoing transplantation for acute leukemia, both the volume and spectrum of antibiotic exposure in the immediate post-transplant period varied widely. These data present an opportunity for hospitals to benchmark their antibiotic utilization practices and can be further leveraged to assess the clinical impact of differential antibiotic exposure.



**Figure 1:** Antibiotic use among children undergoing HCT for acute leukemia at 27 pediatric hospitals, adjusted for age, gender, race, graft source and days of ICU-level care. 1A: Anti-pseudomonal antibiotics 1B: Gram positive antibiotics  
\*cefepime, ceftazidime \*\*piperacillin-tazobactam, ticarcillin-clavulanate \*\*\*meropenem, imipenem-cilastatin, ertapenem ^daptomycin, linezolid



**Figure 2:** Scatter plot highlighting the lack of correlation between hospitals' days of anti-pseudomonal antibiotic therapy and days of ICU level care

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**770. Nurse Prompting for Prescriber-Led Review of Antimicrobial Use in the Critical Care Unit: A Quality Improvement Intervention with Controlled Interrupted Time Series Analysis.**

Sumit Raybardhan, ACPR BSc.PhM MPH; Bonnie Chung, ACPR BSc. Phm; Danielle Ferreira, RN BHSc MN; Marina Bitton, RN MN CNCC; Phil Shin, MD; Tiffany Kan, PharmD and Pavani Das, MD; North York General Hospital, Toronto, ON, Canada

**Session:** 75. Stewardship: Program Implementation  
*Thursday, October 5, 2017: 12:30 PM*

**Background.** Audit-and-feedback (A&F) is a core strategy for antimicrobial stewardship programs (ASPs). However, it is resource-intensive, and may not be practical in every setting. Recent guidelines support the non-ASP-led review of antimicrobials by prescribers (AM-REV) on a routine basis. A sustainable strategy for AM-REV in a critical care unit (CrCU) may improve antimicrobial utilization without additional ASP resources.

**Methods.** Using a quality improvement framework, a prompt for AM-REV strategy was created. The primary outcome was antimicrobial utilization defined by days of therapy/1000 patient-days (AM-DOT). A secondary process outcome was the proportion of relevant cases for which an antimicrobial prompt was provided to the prescriber (AM-PRT). Balancing measures included CrCU mortality rates, length of stay, and 48-hours re-admission rates. Utilization data of a control class of medications (proton-pump inhibitors) was also collected. AM-DOT was collected for 34 months pre- and 14 months post-intervention. AM-PRT was collected for 3 months pre- and 12 months post-intervention. Segmented regression analysis was used for the primary outcome, with a descriptive analysis of secondary outcomes.

**Results.** CrCU nurses were recruited to prompt AM-REV during CrCU rounds. A standardized script was developed to insert day of antimicrobial therapy into rounds; prescribers were primed to respond with affirmation, rationale, and clinical decisions. Plan-Do-Study-Act (PDSA) cycles further refined the intervention to include nursing reminders from CrCU pharmacists and increased engagement of nurses during formal A&F rounds. Prior to the intervention, monthly AM-DOT was 804 with a positive trend (7.3 DOT/1000PD,  $P < 0.05$ ). Post-intervention resulted in an immediate reduction of 217 DOT/1000 PD ( $P < 0.05$ ) with a non-significant negative AM-DOT trend, representing a 20% (95% CI -15%, -25%) reduction in AM-DOT per month. There was no significant change in utilization of the control class of medications. The ABX-PRT increased from 17% to 50% during the intervention period. Balancing measures were comparable pre and post-intervention.

**Conclusion.** Nurse prompting of AM-REV can lead to significant reductions in antimicrobial utilization, providing a non-ASP mechanism of sustaining antimicrobial awareness.

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**771. Implementation of a Centralized Telehealth-based Antimicrobial Stewardship Program (ASP) for 16 Small Community Hospitals (SCHs)**

John J. Veillette, PharmD, BCPS<sup>1</sup>; Todd Vento, MD, MPH<sup>2</sup>; Stephanie Gelman, MD<sup>1</sup>; Whitney R. Buckel, PharmD, BCPS<sup>3</sup>; Peter S. Jones, MSLS<sup>4</sup>; Valoree Stanfield, MPH<sup>1</sup>; Mary Adams, RN, BSN<sup>1</sup>; Katherine Repko, RN, MSN<sup>1</sup> and Edward Stenehjem, MD, MSC<sup>5</sup>; <sup>1</sup>Intermountain Medical Center, Murray, UT, <sup>2</sup>Clinical Epidemiology/ Infectious Diseases, Intermountain Medical Center, Murray, UT, <sup>3</sup>Infectious Diseases/ Antimicrobial Stewardship, Intermountain Medical Center, Murray, UT, <sup>4</sup>Clinical Epidemiology and Infectious Diseases, Intermountain Medical Center, Murray, UT, <sup>5</sup>Division of Infectious Disease, Intermountain Medical Center, Murray, UT

**Session:** 75. Stewardship: Program Implementation  
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**Background.** Innovative strategies are needed for ASP implementation in SCHs (<200 beds). Most SCHs lack ASPs that meet Joint Commission (JC) requirements and CDC core elements. Telehealth can help extend infectious diseases expertise and stewardship resources to such facilities.

**Methods.** The Infectious Diseases Telehealth (IDt) program provides consultation and ASP support to 16 Intermountain SCHs (18-150 beds). Key stakeholders were identified at each site to establish formal ASPs. An IDt physician and pharmacist attended local meetings as ASP members to provide guidance. Centrally tracked antibiotic usage and resistance data were reviewed with each program to identify opportunities for improvement. Daily stewardship responsibilities were shared: front-line pharmacists were trained to review charts for appropriateness using automated electronic alerts, while the IDt pharmacist reviewed high priority alerts (e.g., positive blood cultures). Recommendations were made to local staff, or to the IDt physician in cases needing telehealth consultation.

**Results.** ASPs were formed at 15/16 hospitals (1/16 had an existing ASP). Members included: local physician (15/16), local pharmacist (15/16), infection preventionist (16/16), quality representative (15/16), nursing (5/16), and administration (5/16). Collaborative data review led to 16 planned projects to improve antimicrobial prescribing. Eleven targeted specific drugs [carbapenems ( $n = 6$ ), piperacillin-tazobactam ( $n = 1$ ), fluoroquinolones ( $n = 2$ ), vancomycin ( $n = 2$ )], and five aimed to improve