



Disclosures. All authors: No reported disclosures.

1614. Characteristics of Prospective Audit and Feedback in a Pediatric Cardiovascular Intensive Care Unit

Laura Bio, PharmD¹; Jenna Kruger, MPH²; Betty Lee, PharmD³ and Hayden Schwenk, MD³; ¹Pharmacy, Lucile Packard Children's Hospital Stanford, Palo Alto, California, ²Lucile Packard Children's Hospital Stanford, Palo Alto, California, ³Lucile Packard Children's Hospital, Palo Alto, California, ⁴Pediatric Infectious Diseases, Stanford University School of Medicine, Stanford, California

Session: 169. Stewardship: Pediatric Antimicrobial Stewardship
Friday, October 6, 2017: 12:30 PM

Background. Prospective audit and feedback (PAF) in the pediatric cardiovascular intensive care unit (CVICU) has not been elaborated. A formal program was implemented in our institution's pediatric CVICU on 12/07/15. The purpose of this study was to describe characteristics of PAF recommendations in a pediatric CVICU after implementation with a comparison of antimicrobial utilization before and after.

Methods. Antimicrobial audits for patients admitted to the Lucile Packard Children's Hospital Stanford CVICU between December 7, 2015 and November 30, 2016 were reviewed. Audits were performed by the Antimicrobial Stewardship Program (ASP) Pharmacist and reviewed with the ASP Medical Director, before being communicated to the CVICU Pharmacist. The CVICU Pharmacist communicated recommendations to the medical team, and adherence was assessed within 48 hours. The days of therapy (DOT) per 1,000 patient-days from June 1, 2015 to November 30, 2016 were collected to evaluate the impact of PAF on antimicrobial utilization.

Results. During the study period, there were 475 antimicrobial audits and 156 recommendations; the majority of which were accepted (77%). The most common recommendation was to stop the antimicrobial (53%) and vancomycin and piperacillin-tazobactam were the antimicrobials with the greatest number of recommendations (37% and 21%, respectively). Half of the recommendations were for antimicrobials prescribed for sepsis, either rule-out or culture negative. The average DOT/1000 patient-days for aggregate antimicrobial use in the CVICU decreased from 1,172 in the 6 months preceding PAF implementation to 995 over the subsequent 12 months, representing a 15% reduction in utilization. Broad spectrum Gram-negative antibiotic utilization decreased by 8.7% (288 vs. 263 DOT/1000 patient-days) while broad spectrum Gram-positive antibiotic utilization fell by 27% (240 vs. 174 DOT/1000 patient-days) over the same time period.

Conclusion. One-third of antimicrobials audited in the pediatric CVICU resulted in a PAF recommendation. Recommendations were typically made on broad spectrum antibiotics and for patients without microbiologically-confirmed infection. Implementation of a formal PAF program in the pediatric CVICU resulted in reduced antimicrobial utilization.

Disclosures. All authors: No reported disclosures.

1615. Improving Institutional Management of MSSA Infections in Children: A Quality Improvement Initiative

Amol Purandare, MD¹; Madan Kumar, D.O.¹ and Rana F. Hamdy, MD, MPH, MSCE²; ¹Infectious Diseases, Children's National Medical Center, Washington, DC, ²2701 Calvert St., 2701 Calvert St., Washington, DC

Session: 169. Stewardship: Pediatric Antimicrobial Stewardship
Friday, October 6, 2017: 12:30 PM

Background. *S. aureus* is a common cause of skin/soft tissue, musculoskeletal, and bloodstream infections in children, with methicillin susceptible *S. aureus* (MSSA) accounting for most cases in the U.S. Antibiotic treatment of MSSA with anti-staphylococcal penicillins, or first-generation cephalosporins is associated with improved outcomes compared with treatment with broader spectrum antibiotics. The objective of our study was to analyze current treatment of MSSA infections in our institution, and to implement and assess the effect of interventions to improve appropriate prescribing.

Methods. Retrospective analysis of all children with MSSA positive skin, wound, and blood cultures obtained from the Emergency Department and the inpatient setting between January 1, 2015 to June 30, 2017. Patients undergoing therapy for additional infections and poly-microbial cultures were excluded. A spaced multifaceted quality improvement intervention included medical staff education, modification of notation to MSSA culture results with therapeutic suggestions, and an institutional pathway for skin/soft-tissue infections (SSTIs). Outcomes measured included proportion of patients prescribed appropriate antibiotic therapy both with and without infectious diseases consultation.

Results. A total of 464 episodes of MSSA infection met our case criterion. Overall during the study period, 33% of patients were switched to appropriate therapy, 62% remained on clindamycin, and 5% were kept on other nonspecific therapy. Prior to intervention, appropriate therapy over the 7 pre-intervention quarters measured ranged between 18 and 43%. Post-intervention, appropriate therapy was 45–50% over the next 2 quarters. For inpatient episodes, 92% of cases with ID consultation were switched appropriately, whereas 18% of cases without ID consultation were switched appropriately.

Conclusion. Under current practice habits, a majority of MSSA isolates are treated inappropriately in the absence of ID consultation. Medical staff education can be a beneficial quality improvement focus to improve antimicrobial prescribing for MSSA infections. Antimicrobial suggestions built into laboratory culture reporting and clinical pathways may also be beneficial to improve prescribing.

Disclosures. All authors: No reported disclosures.

1616. Antimicrobial Prescribing Rates Comparing On-Site Visits with Two Types of Virtual Care Visits Across a Large Integrated Healthcare System

Monica Schmidt, MPH, PhD¹; Melanie D. Spencer, PhD, MBA² and Lisa E. Davidson, MD³; ¹Center for Outcomes Research and Evaluation, Carolinas Healthcare System, Charlotte, North Carolina, ²Research, Dickson Advanced Analytics, Carolinas Healthcare System, Charlotte, North Carolina, ³Division of Infectious Diseases, Carolinas HealthCare System, Charlotte, North Carolina

Session: 170. Stewardship: Targets for Intervention
Friday, October 6, 2017: 12:30 PM

Background. In 2014, Carolinas Healthcare System (CHS) implemented virtual visits and Electronic visits (eVisits) as an alternative to on-site visits to provide novel and convenient ways for patients to access care for non-emergent conditions. With virtual visits, patients have a face-to-face consultation with a provider by logging onto any device equipped with a camera. eVisits offer a lower tech alternative that allow patients to email their health concerns through a series of health-related questions. Providers respond via email with recommendations. No face-to-face interaction is included with eVisits. This study aimed to compare prescribing rates across these care delivery options.

Methods. We identified 2,478 virtual visits, 269 eVisits and 655,329 on-site visits between Jan 2014 to Feb 2017 where there was any diagnosis of bronchitis, sinusitis, non-suppurative otitis media and upper respiratory infection. Antimicrobial prescribing rates were standardized to per 100 visits (reported as a %) for each indication. Prescribing rates are reported for each visit type and indication. Chi square tests were used to compare rates across the visit types.

Results. Across all visit types and indications, on-site visits had the highest rate of antimicrobial prescribing and eVisits the lowest (onsite: 55.0; virtual: 51.3; eVisit 33.8; $P < 0.001$). Sinusitis was the most frequent indication for which an antimicrobial was prescribed, with on-site visits (86.6%), virtual (72.9%) and eVisits (57.8%) showing significantly different rates ($P < 0.001$). For upper respiratory infections, where an antimicrobial is not indicated, 34.5% of on-site, 11.0% of virtual and 2.0% of eVisits received an antimicrobial prescription ($P < 0.001$).

Conclusion. The mechanism of care delivery significantly impacts whether or not an antimicrobial is prescribed for specific diagnoses where a prescription may not be indicated. eVisits had the lowest rates of inappropriate prescribing for URI while