119. Performance of Infectious Diseases Specialists, Hospitalists, and Generalists in Case-Based Scenarios Illustrating Antimicrobial Stewardship Principles at 16 VA Medical Centers
Christopher J. Graber, MD, MPH1; Alissa Simon, MA2; Yue Zhang, PhD3; Matthew B. Goetz, MD1; Matthew B. Goetz, MD1; Makoto M. Jones, MD MS3; Jorie M. Butler, PhD2; Ann F. Chao, PhD4; Peter A. Glassman, MBBS5; VA Greater Los Angeles Healthcare System/UCLA, Los Angeles, California; 6VA Greater Los Angeles Healthcare System, Los Angeles, California; 7University of Utah, Salt Lake City, UT; 8VA Greater Los Angeles Healthcare System and David Geffen School of Medicine at UCLA, VA-CDC Practice-Based Research Network, Los Angeles, California; 9Salt Lake City VA/University of Utah, Salt Lake City, Utah; 10Oklahoma University Health Sciences Center, Oklahoma City, Oklahoma

Session: P-07. Antimicrobial Stewardship: Program Development and Implementation
Background. As part of a project to implement and evaluate antimicrobial dashboards at selected VA facilities nationwide, we assessed provider attitudes and knowledge related to antibiotic prescribing among physicians working in inpatient settings at 16 VA facilities.

Methods. The online survey explored attitudes toward antimicrobial use and assessed respondents’ management of four clinical scenarios: cellulitis, community-acquired pneumonia (CAP), non-catheter-associated asymptomatic bacteriuria (NC-ASB), and catheter-associated asymptomatic bacteriuria (C-ASB). Responses were scored by assigning +1 for an answer most consistent with guidelines, 0 for a less-guideline-concordant but acceptable answer and -1 for an incorrect answer. Scores were normalized to 100% correct to 100% incorrect across all questions within a scenario, and mean scores were calculated across respondents by specialty; differences in mean score per scenario were tested using ANOVA.

Results. One-hundred-thirty-nine physicians completed the survey (n=19 ID physicians, 62 hospitalists, 58 generalists). Attitudes were similar across the three specialties. There was a significant difference in cellulitis scenario scores (correct responses: ID=67.4%, hospitalists=51.2%, generalists=41.8% correct, p=0.0087). Scores were not significantly different across specialties for CAP (correct responses: ID 76.2%, hospitalists 63%, generalists 56.5%, p=0.0914) and NC-ASB (correct responses: ID 63%, hospitalists 55%, generalists 36.2%, p=0.322), though ID trended higher. Lowest scores were observed for C-ASB (ID 39.5% correct, hospitalists 8% incorrect, generalists 8.5% incorrect, p=0.12).

Conclusion. Significant differences in performance on management of cellulitis and low overall scores on C-ASB management point to these conditions as being potentially high-yield targets for antimicrobial stewardship interventions.

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Background. Communication among health care professionals during antimicrobial prescribing is critical to ensure appropriate use. This is of concern in Guatemala where physicians seldom consider guidance from other professionals during antimicrobial prescribing activities.

Methods. We carried out a cross sectional questionnaire and open ended interviews with physicians from five hospitals in Guatemala to describe perceptions of communication between health care providers, and acceptance of antimicrobial guidance during prescribing.

Results. From January to April 2021 an electronic questionnaire was sent to enrol all physicians of which 74% completed participation (n=107/145). Fifty-five percent participated in open ended interviews (n=79/145). Respondents perceived high levels of communication between physicians and ID specialists (94% of respondents); 52%, and 54% perceived high levels of physician-pharmacist, and physician-nurse communication respectively. Significant differences in the perception of physician-pharmacist communication were detected when comparing responses between hospitals, and between respondent sex (chi² p< 0.05). Barriers to communication between physicians included lack of local guidelines or protocols, patient overload, COVID-19 pandemic, lack of mentorship, and little room to discuss antimicrobial therapy with higher-ranking physicians. Eighty percent and 45% of physicians were open to receiving antibiotic optimization recommendations from other physicians, and pharmacists respectively. Notable barriers to accepting recommendations from pharmacists included lack of regular communication, lack of clinical experience, and concern about evidence based recommendations.

Conclusion. Effective communication is perceived between physicians during antimicrobial prescribing activities. Marginal levels of communication and acceptance of prescribing recommendations have been detected between physicians and pharmacists. In this milieu, there is an opportunity to strengthen multidisciplinary teams to optimize antimicrobial use.

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121. Evaluation of Multifaceted Antimicrobial Stewardship in Optimizing Antimicrobial Usage in Intraabdominal Infections at a Community Hospital

Tho H. Pham, PharmD1; Angela Huang, PharmD2; Scott T. Hall, PharmD, BCPS3; Vanthida Huang, PharmD, BSpHM, FCCP4; Midwestern University College of Pharmacy-Glenade Campus, Glendale, Arizona; 1HonorHealth John C Lincoln, Phoenix, Arizona; 2Mayo Clinic Health System-Franciscan Healthcare, La Crosse, Wisconsin; 3Midwestern University College of Pharmacy - Glendale, Glendale, Arizona

Session: P-07. Antimicrobial Stewardship: Program Development and Implementation

Background. Treatment of intraabdominal infections (IAI) commonly involves broad spectrum antimicrobials based on the severity and etiology of infections as well as the underlying medical conditions. However, the overuse of broad-spectrum agents has driven selection for Gram-negative and positive resistance, as well as collateral consequences such as Clostridiasis difficile colitis. We sought to evaluate the utilization of a pharmacy-driven multifaceted antimicrobial stewardship (AMS) intervention to optimize empiric antimicrobial therapy by risk stratification among IAI patients and reduce the number of antibiotic treatment days.

Methods. This is a single-center case observation study in hospitalized adult IAI patients on antimicrobial therapy from Dec 2019-Feb 2020 compared to patients from Dec 2020-Feb 2021 after initiation of AMS with daily prospective audit and feedback. The composite primary outcome is reduction of antibiotic treatment days and antibiotic therapy days which was percentage of ATO documentation completed. Secondary outcomes included appropriate continuation of P/T and Cef and de-escalation within 24 hours after ATO completion.

Results. A total of 248 and 234 patients in the pre- and post-groups were included, respectively. Significantly more ATOs were documented in the post-group compared to the pre-group (65.5% vs 48.5%, p<0.001). Similarly, inappropriate continuation of P/T and Cef after the ATO process was significantly lower in the post-group compared to the pre-group (11.6% vs 64.0%, p<0.001). While not statistically significant, there was a trend toward increased de-escalation in the post-group within 24 hours of ATO completion (58.9% vs 47.9%, p=0.105).

Conclusion. A pharmacist-led ATO process reduced inappropriate use of P/T and Cef compared to a prescriber-led process. Incorporating pharmacists into an ATO process may optimize antimicrobial stewardship outcomes.

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123. Formal Pediatric Antimicrobial Stewardship Program at a Children's Hospital Within a Larger Academic Medical Center Decreases Antimicrobial Prescribing

Paul Feustel, PhD1; Mark Botti, PharmD2; Shannon Andrews, MD3; Albany Medical Center, Albany, New York

Session: P-07. Antimicrobial Stewardship: Program Development and Implementation

Background. Antimicrobial stewardship is a coordinated approach to antimicrobial overprescribing, an avoidable contributor to adverse events in children. Implementation of a formal pediatric antimicrobial stewardship program (pASP) in a children's hospital within a hospital poses unique challenges due to staffing, funding, and institutional priorities. We hypothesized that a formalized pASP would decrease antimicrobial prescribing in a children's hospital within a large academic medical center.

Methods. We extracted pharmacy administration data for all patients receiving systemic antimicrobials in a tertiary care, academic children's hospital in Upstate NY from 3/1/2020-3/31/2021. We grouped patients into floor (including patients with surgical, hematology, and oncologic processes), pediatric intensive care unit (PICU), and neonatal intensive care unit (NICU). We calculated antimicrobial days of therapy per 1000 patient days (DOT/1000PD) for 6 months before, 3 months during, and 6 months after institution of pASP. The formalized pASP involved physician and pharmacy leadership of prospective audit and feedback. We developed run charts and used two-way analysis of variance (ANOVA) with an effect of location, an effect of the intervention, and an interaction effect. Significant effects were then tested using Tukey's test for multiple comparisons.

Results. Run charts are displayed in figures 1-3. Overall, the pediatric floor (DOT/1000PD=1181) had significantly higher prescribing than the PICU (847), which was significantly higher than the NICU (327) (p<0.001, ANOVA). Antimicrobial prescribing after pASP dropped by 80 DOT/1000PD (98% CI: 23 to 137) (p<0.008; Tukey's test) after including the effect of location. The interaction effect was not significant (p=0.77; ANOVA) suggesting that the intervention did not have a significantly different effect in the three locations.

Variation in Antimicrobial Prescribing on the Pediatric Floors