

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

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 enrolled 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 (χ^2 , $p < 0.05$). Barriers to communication between professionals 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.

Disclosures. Mario Augusto Melgar Toledo, MD, Merck (Grant/Research Support) Pfizer (Grant/Research Support)

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

Tho H. Pham, PharmD¹; Angela Huang, PharmD²; Scott T. Hall, PharmD, BCPS³; Vanthida Huang, PharmD, BSPHM, FCCP⁴; ¹Midwestern University College of Pharmacy-Glendale Campus, Glendale, Arizona; ²HonorHealth John C Lincoln, Phoenix, Arizona; ³Mayo Clinic Health System-Franciscan Healthcare, La Crosse, Wisconsin; ⁴Midwestern 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 *Clostridioides 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 de-escalation from broad spectrum antibiotics (fluoroquinolones, piperacillin/tazobactam, and carbapenems) to cephalosporins.

Results. We identified 40 patients each in the baseline (pre-AMS group) and post-AMS group via electronic medical record. Baseline characteristics were well-matched between groups. The majority of patients were diagnosed with community-acquired IAIs such as appendicitis, diverticulitis, and cholecystitis. Fluoroquinolone use as empiric therapy was significantly lower in the post-AMS group vs. pre-AMS group (2.5% vs. 25%, $p < 0.001$), while non-*Pseudomonas* cephalosporin use was increased (25% post-AMS vs. 0% pre-AMS, $p < 0.001$). Oral fluoroquinolone use at discharge was significantly decreased in the post-AMS group ($p < 0.001$). Antibiotic treatment days remained unchanged. There was no statistical difference between the two groups in 30-day mortality, 30-day readmission, relapse, and *C. difficile* colitis.

Conclusion. A multifaceted antimicrobial therapy intervention successfully reduced the use of fluoroquinolones in patients with community-acquired IAI during hospitalization and discharge. No differences in mortality, readmission, or relapse rates were observed.

Disclosures. All Authors: No reported disclosures

122. Optimization of Antibiotic Time-Outs Within a Health System

Ashley Long, PharmD¹; Sara Revolinski, PharmD, BCPS²; Anne R. Daniels, PharmD, BCPS, AAHIVP³; ¹Memorial Hermann Southeast Hospital, Houston, Texas; ²Medical College of Wisconsin, Milwaukee, WI; ³Froedtert and Medical College of Wisconsin, Milwaukee, Wisconsin

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

Background. The Infectious Diseases Society of America estimates that up to 50% of antibiotic use in hospitals is inappropriate. In order to assist with reducing

inappropriate antibiotic use, the Centers for Disease Control and Prevention has recommended systemic evaluation of ongoing antibiotic therapy need, such as antibiotic time-outs (ATOs), be implemented. This has further been supported by the Joint Commission in their antimicrobial stewardship medication management standard. Our system implemented a prescriber-led ATO process in 2018, but documented completion of the ATO remained low. Due to this, pharmacists were integrated into the ATO process with the goal of increasing completion rates.

Methods. This pre-post interventional study analyzed the impact of an antibiotic time out process implemented for patients receiving piperacillin/tazobactam (P/T) or cefepime (CEF) for a minimum of 48 hours. The pre-group (Jan-April 2018) had ATOs completed by the primary medical team, while pharmacists completed the ATO in the post group (Jan-April 2020). For each group, a computerized alert prompted completion of the ATO in the electronic health record (EHR). The alert included systematic questions to assess the need for continued P/T and CEF use. The primary outcome was percentage of ATO documentation completed. Secondary outcomes included inappropriate 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.

Disclosures. All Authors: No reported disclosures

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, PharmD¹; Shannon Andrews, MD¹; ¹Albany 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 3/1/2020-5/31/2021. We grouped patients into floor (including patients with surgical, hematologic, 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

