

**Results.** A total of 2,170 adult encounters for the treatment of SSTIs were included; 1,588 with cellulitis, 413 with local infection and 169 with cutaneous abscess. The overall compliance rate for appropriate therapy, including drug selection and duration, was 64.9% (see Figure 1). Unnecessarily long duration of therapy resulted in an extra 1,637 days of antibiotic therapy. Compliance with drug selection occurred more frequently with physicians (40.3%) compared with residents (33.9%) and Advanced Practice Providers (APP) (25.1%).

**Conclusion.** Compliance with an institutional SSTI guideline for antibiotic selection and duration of therapy is suboptimal in outpatient clinics. Stewardship interventions for SSTIs should target both drug selection and duration, and APPs as an important provider group in outpatient settings.

**Figure 1.** Compliance Stratified by Infection Type

Infection type	Overall Compliance	Compliance with Drug Selection	Compliance with Duration of Therapy
Cutaneous abscess	29%	55%	57%
Cellulitis	78%	82%	60%
Local infection of skin/soft tissue	16%	85%	60%

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#### 1849. Identification of Antimicrobial Stewardship Targets in the Outpatient Setting

Kari Mergenhagen, PharmD, BCPS AQ-ID<sup>1</sup>; John Sellick, DO, MS, FIDSA, FSHEA<sup>2</sup>; Alexis White, PharmD<sup>3</sup>; Collin Clark, PharmD<sup>3</sup> and Michael Ott, PharmD, BCPS<sup>4</sup>; <sup>1</sup>Department of Infectious Diseases, VA Western New York Healthcare System, Buffalo, New York, <sup>2</sup>Department of Medicine, VA Western New York Healthcare System, Buffalo, New York, <sup>3</sup>Pharmacy, VA WNY Healthcare System, Buffalo, New York, <sup>4</sup>Pharmacy, Erie County Medical Center, Buffalo, New York

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**Background.** Outpatient prescriptions consist of 60% of all antibiotic use. Prior studies have shown antibiotic overuse in the outpatient setting which contributes to rising rates of resistance and unnecessary adverse drug events. This study aimed to prospectively identify antibiotic stewardship targets in outpatient settings including drug selection, dose, duration, and if guideline criteria was met to necessitate an antibiotic.

**Methods.** The patient population consisted of outpatients seen at the Veterans Affairs Western New York Healthcare System and its affiliated community-based outreach clinics. Patients were prospectively identified via on a real-time alert received by the infectious disease pharmacist at the time when an oral antibiotic was prescribed from June to September 2017. Data were then collected via chart review and all infections were evaluated based on guidelines. Descriptive statistics and a multivariable logistic regression was used to identify stewardship targets.

**Results.** Of the 1,063 patients included, the most common infections treated included skin and skin structure infection (26.3%), urinary tract infection (18.1%), and sinusitis (11.9%). Azithromycin was the most commonly used antibiotic (27%), followed by cephalexin (13%) and ciprofloxacin (12%). Overall, 40% of antibiotics prescribed were not indicated for use. The incorrect drug was chosen for indication in 40%, the improper dose was ordered in 22%, and the incorrect duration was used in 30%. ICD-10 codes were unreliable in capturing oral antibiotic use, as only 41% antibiotic use was associated with an ICD-10 code relating to an infection. Per the multivariable logistic regression, when the antibiotic was indicated, patients were 2.9 times more likely to receive the correct drug (95% CI, 2.2–3.8) and two times more likely to receive the correct duration for the antibiotic (95% CI, 1.5–2.7). Emergency room patients were twice as likely to receive an antibiotic when indicated based on guidelines (95% CI, 1.5–2.7) compared with those seen in clinics.

**Conclusion.** Poor antibiotic prescribing practices was found throughout the outpatient setting. This study provides a guide to focus efforts during implementation an outpatient stewardship program.

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#### 1850. Impact of Targeted Feedback on Ciprofloxacin Prescribing in Outpatient Clinic Areas

Leona Ebara, MD<sup>1</sup>; Daniela Pellegrini, MD<sup>2</sup>; Natasha N. Pettit, PharmD<sup>3</sup> and Jennifer M. Pisano, MD<sup>3</sup>; <sup>1</sup>Department of Infectious Disease and Global Health, University of Chicago Medicine, Chicago, Illinois, <sup>2</sup>Infectious Disease, Infectious Diseases and Global Health, The University of Chicago Medicine, Chicago, Illinois, <sup>3</sup>The University of Chicago Medicine, Chicago, Illinois, <sup>4</sup>Infectious Diseases and Global Health, The University of Chicago Medicine, Chicago, Illinois

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**Background.** Fluoroquinolones (FQ) have the potential for serious side effects such as tendonitis and tendon rupture, QTc prolongation, severe neuropathies, *Clostridium difficile* infection, dysglycemia, and AKI in patients on ACE inhibitors or ARBs. Beginning in 2016, the University of Chicago Medicine (UCM) Antibiotics Stewardship Program began to give targeted feedback and education to outpatient clinic areas regarding their FQ use to reduce the number of prescriptions.

**Methods.** Outpatient FQ prescribing data from July 2015 to June 2016 (pre-intervention) and December 2016 to December 2017 (post-intervention) was reviewed retrospectively to evaluate indications, durations and alternatives for FQ prescriptions. Education and targeted feedback specific to the clinical area on current FQ usage was given by peer-comparison or aggregate data with recommendations for improved prescribing practices. The number of ciprofloxacin prescriptions/1,000 clinic visits was evaluated in two outpatient clinics and number of ciprofloxacin prescriptions/1,000 patient discharges was evaluated in the emergency department pre and post intervention. FQ use in the two time periods was compared using the unpaired T-test.

**Results.** Ciprofloxacin use in the primary care group (PCG) (12.9%), student care (SC) (7.1%), and emergency department (ED) (8.6%) accounted for 28.6% of overall Ciprofloxacin use in the pre-intervention time period. A significant decrease in ciprofloxacin prescribing was seen in the PCG, 8.78Rx/1,000 patient visits (PRE) vs. 5.24Rx/1,000 patient visits (POST),  $P < 0.001$ ; in SC, 16.25 Rx/1,000 patient visits (PRE) vs. 6.76Rx/1,000 patient visits (POST),  $P < 0.001$ ; and the ED, 13.37RX/1,000 patient discharges (PRE) vs. 9.84/1,000 patient discharges (POST) ( $P = 0.035$ ). Peer comparison data were well received by PCG faculty. Decreases have been sustained in each clinical area 4 (ED) to 12 months (PCG and student care) following the intervention.

**Conclusion.** Feedback on both aggregate clinic and individual use of ciprofloxacin resulted in decrease use in three outpatient clinical areas at UCM and was well received by providers. Further work is up needed to assess the most effective methods to optimize antibiotic prescribing in the ambulatory clinics.

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#### 1851. Impact of an Antimicrobial Stewardship Initiative on Fluoroquinolone Utilization in the Outpatient Setting at an Academic Medical Center

Yousef Lafi, PharmD<sup>1</sup>; Eris Cani, BS, PharmD<sup>2</sup>; Kyoung-Sil Kang, PharmD, BCPS<sup>3</sup>; Aiyi Zhang, MS<sup>4</sup> and Cosmina Zeana, MD<sup>5</sup>; <sup>1</sup>Pharmacy, BronxCare Health System, Bronx, New York, <sup>2</sup>Pharmacy, SUNY Downstate Medical Center, Brooklyn, New York, <sup>3</sup>Pharmacy, Bronx Lebonon Hospital center, Bronx, New York, <sup>4</sup>BronxCare Health System, Bronx, New York, <sup>5</sup>Infectious Disease, Bronx-Lebanon Hospital Center, Bronx, New York

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**Background.** Fluoroquinolone (FQ) use is associated with the development of *C. difficile* colitis, emergence of multidrug-resistant pathogens and occurrence of multiple adverse effects. In light of these risks, the Food and Drug Administration (FDA) warns against the overuse of systemic FQs for certain infections. Utilization of clinical decision support systems or alert tools integrated within the computerized physician order entry (CPOE) have been implemented in the inpatient setting to reduce antibiotic use. However, there is limited data on the effectiveness of such strategies in the outpatient setting. The purpose of this study was to evaluate the impact of an antimicrobial stewardship initiative on FQ utilization in the outpatient setting.

**Methods.** This was a retrospective chart review of patients  $\geq 18$  years old who received a FQ upon discharge from the inpatient setting, emergency department or outpatient clinics at a large academic medical center. The intervention consisted of an automatic electronic alert that would appear upon prescribing of a FQ, suggesting use of an alternative antibiotic and requiring a diagnosis to be entered. The pre and post intervention periods spanned from November 16, 2016 to April 16, 2017 and from November 16, 2017 to April 16, 2018, respectively. The primary endpoint was the number of FQ prescriptions over the total number of visits in the pre- and post-intervention time periods. A secondary endpoint was days of therapy (DOT) on an FQ.

**Results.** 1,668 patients received FQs upon discharge in the pre-intervention arm and 1,494 in the post-intervention arm. Compared with the pre-intervention group, fewer FQs were prescribed in the post intervention group ( $P = 0.002$ ). Fewer patients were discharged on an FQ from the outpatient clinics in the post-intervention arm compared with the pre-intervention arm (31 vs. 39%). However, this did not hold true when evaluating the number of FQ prescriptions written from the inpatient setting (52% in the post and 42% in the pre-intervention). DOT was lower in the post-intervention arm (10,751.5) compared with the pre-intervention period (11,961).

**Conclusion.** Implementation of a mandatory electronic alert tool in CPOE showed a statistically significant reduction in the overall number of FQ prescriptions between the pre and post intervention groups in the outpatient setting.

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#### 1852. Rethinking Empirical Treatment for Urinary Tract Infections in the Outpatient Setting

Christopher Wisnik, MS<sup>1</sup>; Gabriela M. Andujar Vazquez, MD<sup>2</sup>; Kirithana R. Beaulac, PharmD<sup>3</sup> and Shira Doron, MD, MS, FIDSA<sup>2</sup>; <sup>1</sup>Public Health and Community Medicine, Tufts University School of Medicine, Boston, Massachusetts, <sup>2</sup>Division of Geographic Medicine and Infectious Diseases, Tufts Medical Center, Boston, Massachusetts, <sup>3</sup>Department of Pharmacy, Tufts Med. Ctr., Boston, Massachusetts

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**Background.** Antibiograms can be useful for guiding empirical treatment. The Tufts Medical Center microbiology laboratory generates an antibiogram for the adult primary care (PC) clinic consisting of urinary isolates of *E. coli* to guide empirical treatment for UTI. Standard antibiograms arranged by organism are of limited utility for infections like UTI which are caused by a wide array of bacteria. Furthermore, some