

FQ usage (Figure 1). First, the FDA warning was added to all oral FQ orders in the electronic medical record and education regarding risk and appropriate use of FQ was given to providers in the primary care clinics and emergency department. Secondly, ciprofloxacin susceptibilities were suppressed by the laboratory when organisms were susceptible to third-generation cephalosporins. To assess the impact of these interventions, FQ utilization was compared across the same time period, each one year apart. Pre-education was assessed from November 2015 to February 2016, post-education from November 2016 to February 2017, and post-education plus susceptibility suppression from November 2017 to February 2018.

Results. Comparative utilization data by site was collected (Figure 2) with all sites demonstrating a decrease in FQ utilization and one site showing an 85% decrease. We observed an overall 19% decrease in outpatient FQ prescribing after education alone and 14% decrease after susceptibility suppression plus continuing education. Compared with pre-intervention baseline, there was a total 30% decrease in FQ utilization after both interventions were implemented, corresponding to approximately 150 fewer prescriptions per month (Figure 3).

Conclusion. Educational efforts alone proved effective in decreasing outpatient FQ usage. Additional improvement was observed when change was implemented at a system level via susceptibility suppression. Further decrease in FQ utilization is expected with ongoing education and additional system changes.

Figure 1. Intervention Implementation Timeline



Figure 2. Comparison of Outpatient Fluoroquinolone Utilization by Sites

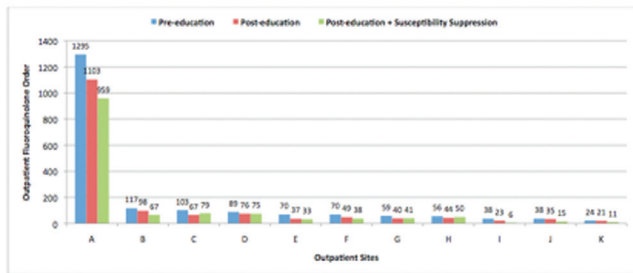
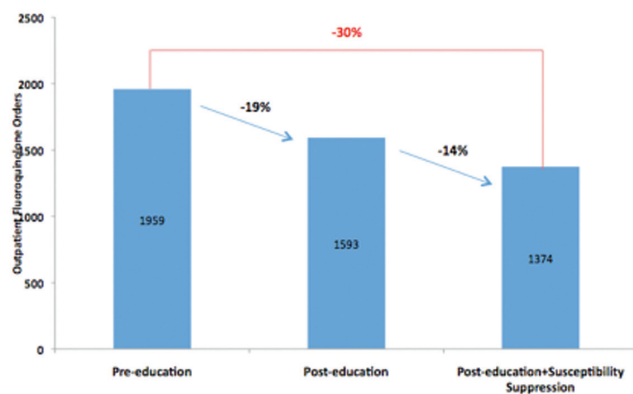


Figure 3. Comparison of Overall Outpatient Fluoroquinolone Utilization



Disclosures. All authors: No reported disclosures.

1843. Prescribers' Characteristics and Unnecessary/Inappropriate Antimicrobial Prescription in the Emergency Department: An Observational Study at a Tertiary Care Center

Yasuaki Tagashira, MD.¹; Naofumi Yamane, MD.¹; Satoshi Miyahara, MD.¹; Azusa Orihara, MD.¹; Yuki Uehara, MD, PhD²; Keichi Hiramatsu, MD, PhD³ and Hitoshi Honda, MD, PhD¹; ¹Infectious Diseases, Tokyo Metropolitan Tama Medical Center, Tokyo, Japan, ²Department of Infection Control Science, Juntendo University Graduate School of Medicine, Tokyo, Japan, ³Department of Infection Control Science, Juntendo University Faculty of Medicine, Tokyo, Japan

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Background. Antimicrobials are commonly prescribed in the emergency department despite the fact that a large proportion of these drugs are misused. However, comprehensive studies of factors leading to the misuse of antimicrobials in the emergency department (ED) are few. Understanding current practice of antimicrobial use in the ED is important for developing an effective antimicrobial stewardship program for this setting.

Methods. We performed a 1-year cohort study of patients discharged from the ED in a tertiary care center with a prescription for oral antimicrobial agents. A retrospective audit of the appropriateness of antimicrobial prescription using prespecified criteria was performed by two infectious disease physicians. Patterns in antimicrobial prescription and the physician-, patient-, and environment-related factors predicting unnecessary/inappropriate antimicrobial prescription were evaluated.

Results. Of the 36,308 annual visits to the ED, 1,555 patients (4.3% of visit) received oral antimicrobial prescriptions upon discharge. Pneumonia (18.2% [283/1,555]) was the most common indication for antimicrobial prescription. Of the 1,555 antimicrobial prescriptions issued, 852 (52.9%) were considered inappropriate. Factors significantly associated with unnecessary/inappropriate antimicrobial prescription included the lack of comorbidities (adjusted odds ratio [aOR]: 1.39; 95% confidence interval [CI]: 1.03–1.87), late-night visit (aOR: 1.48 95%; CI: 1.05–2.09), the spring-summer season (aOR: 1.13 95%; CI: 1.03–1.25), higher postgraduate year (>10 years) (aOR: 1.77 95%; CI: 1.24–2.52), and physicians in surgical subspecialties (aOR: 4.51 95%; CI: 3.34–6.09).

Conclusion. More than half of oral antimicrobial prescriptions in the ED were inappropriate. Unnecessary or inappropriate antimicrobial prescriptions were frequently issued during the late-night shift, and by older physicians and physicians in surgical subspecialties.

Disclosures. All authors: No reported disclosures.

1844. Improving Management of Community Acquired Pneumonia through Collaborative Integrated Care in an Antimicrobial Stewardship Initiative

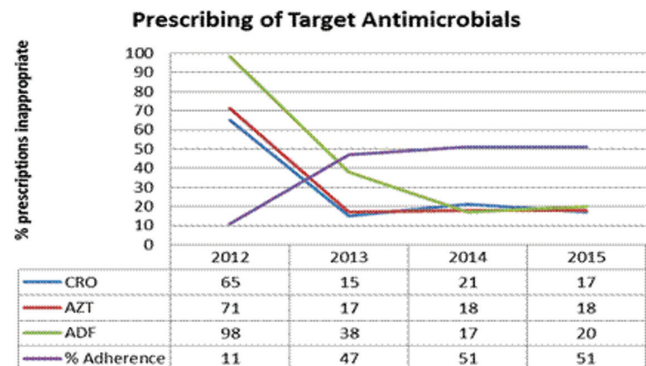
Marjorie Sehu, MBBS¹; Tina Patterson, B Pharm²; Kate Houghton, B Pharm, Grad Dip Clin Pharm³; Paul Firman, B Pharm³; Zack Klyza, B Pharm² and David McDougall, B Pharm, MSc (Biostats)¹; ¹Infection Management Services, Princess Alexandra Hospital, Woolloongabba, QLD, Australia, ²Infection Management Services, Logan Hospital, Meadowbrook QLD, Australia, ³Pharmacy Department, Logan Hospital, Meadowbrook QLD, Australia

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Background. Community acquired pneumonia (CAP) is a common condition with significant morbidity and mortality especially in the elderly. Inappropriate selection of antibiotics has frequently been reported in the literature, including within the Australian setting. Clinical pathways and antimicrobial stewardship (AMS) efforts have been effective tools in the management of CAP, encouraging greater adherence to treatment guidelines and the use of severity assessment tools to guide empiric antibiotic choice.

Methods. A baseline retrospective audit revealed high rates of inappropriate prescribing for CAP outside of established guidelines. This stemmed mainly from the lack of severity assessment to guide empiric therapy. To improve management, a fully integrated CAP clinical pathway for immuno-competent adult patients was designed. The SMART-COP tool was chosen as the severity assessment tool (SAT) as it was well validated in the Australian Community Acquired Pneumonia Study. A random sample of 80 patients with the principal diagnosis of CAP were selected annually from 2013 to 2015 to measure the effect and sustainability of the intervention.

Results. Use of an SAT was integral in guiding the selection of appropriate antibiotics which has risen from 9% in 2012 to 46% in 2015. The inappropriate use of broad-spectrum antibiotics declined since the commencement of the CAP Pathway as seen in the graph below.



The average length of stay (LOS) for patients on the CAP pathway has also declined from 7.14 days in 2012 to 4.31 days in 2015. This is significant reduction in healthcare cost associated with the care of patients with CAP. Pneumonia In-Hospital Mortality Variable Life Adjusted Display indicators for Logan Hospital show no persistent flags, indicating no unexpected treatment outcomes.

Conclusion. The implementation of a CAP Pathway has shown continuing improvement in the choice of empiric therapy for the management of CAP with a