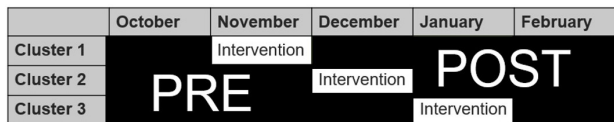


chart review. An antibiotic prescribing report card was provided to PC providers, then an educational session was delivered at each PC clinic. Patient education materials were distributed to PC clinics. Interventions were made in a step-wise (figure 1) fashion. The primary outcome was percentage of overall antibiotic prescriptions as a composite of prescriptions for ASB, acute bronchitis, upper-respiratory infection otherwise unspecified, uncomplicated sinusitis, and uncomplicated pharyngitis. Secondary outcomes included individual components of the primary outcome, a composite safety endpoint of related hospital, emergency department or primary care visit within 4 weeks, antibiotic appropriateness, and patient satisfaction surveys.

Figure 1



Results: There were 887 patients included for analysis (405 pre-intervention, 482 post-intervention). Baseline characteristics are summarized in table 1. After controlling for type 1 error using a Bonferroni correction the primary outcome was not significantly different between groups (56% vs 49%). There was a statistically significant decrease in prescriptions for bronchitis (20.99% vs 12.66%; $p=0.0003$). Appropriateness of prescriptions for sinusitis (OR 4.96; CI 1.79–13.75; $p=0.0021$) and pharyngitis (OR 5.36; CI 1.93 – 14.90; $p=0.0013$) was improved in the post-intervention group. The composite safety outcome and patient satisfaction survey ratings did not differ between groups.

Table 1

Characteristic	Result (n=887)
Pre, n (%)	405 (46%)
Post, n (%)	482 (54%)
Cluster 1, n (%)	404 (45.55%)
Cluster 2, n (%)	268 (30.21%)
Cluster 3, n (%)	215 (24.24%)
Age in years, mean (SD)	59 (17)
Male, n (%)	751 (85%)
Caucasian, n (%)	745 (84%)
Charlson Comorbidity Index, mean (SD)	2 (2)
BMI in kg/m ² , mean (SD)	31 (7)
CrCl in ml/min, mean (SD)	95 (35)

Conclusion: Multifaceted educational interventions targeting providers can improve antibiotic prescribing for indications rarely requiring antimicrobials without increasing re-visit or patient satisfaction surveys.

Disclosures: All Authors: No reported disclosures

142. Implementing an Antimicrobial Stewardship Program in the Outpatient Setting

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Session: P-5. Antimicrobial Stewardship: Non-Inpatient Settings

Background: Antimicrobial-resistant infections lead to increased morbidity, mortality, and healthcare costs. Among the most facile modifiable risk factors for developing resistance is inappropriate prescribing. The CDC estimates that 47 million (or ≥30% of) outpatient antibiotic prescriptions in the United States are unnecessary. This has provided impetus for expanding our antimicrobial stewardship program (ASP) into the outpatient setting. Initial goals included the following: continuous evaluation and reporting of antibiotic prescribing compliance; minimize underuse of antibiotics from delayed diagnoses and misdiagnoses; ensure proper drug, dose, and duration; improve the percentage of appropriate prescriptions.

Methods: To achieve these goals, we first sent a baseline survey to outpatient prescribers, assessing their understanding of stewardship and antimicrobial resistance. Questions were modeled from the Illinois Department of Public Health (IDPH) Precious Drugs & Scary Bugs Campaign. The survey was sent to prescribers at 19 primary care and three immediate/urgent care clinics. Compliance rates for prescribing habits were subsequently tracked via electronic health records and reported to prescribers in accordance with IRB approval.

Results: Prescribers were highly knowledgeable about what constitutes appropriate prescribing, with verified compliance rates highly concordant with self-reported rates. However, 74% of respondents reported intense pressure from patients to inappropriately prescribe antimicrobials. Compliance rates have been tracked since December 2018 and comparing pre- with post-intervention rates shows improvement in primary care since reporting rates to prescribers in August 2019.

Conclusion: Reporting compliance rates has been helpful in avoiding inappropriate antimicrobial therapy. However, the survey data reinforce the importance of behavioral interventions to bolster ASP efficacy in the outpatient setting. Going forward, posters modeled off of the IDPH template will be conspicuously exhibited in exam

rooms, indicating institutional commitment to the enumerated ASP guidelines. Future studies will allow for comparison of pre- and post-intervention knowledge and prescriber compliance.

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143. Initial Impact of COVID-19 on Ambulatory Antibiotic Prescribing for Respiratory Viral Infections

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Session: P-5. Antimicrobial Stewardship: Non-Inpatient Settings

Background: Between 15–50% of patients seen in ambulatory settings are prescribed an antibiotic. At least one third of this usage is considered unnecessary. In 2019, our institution implemented the MITIGATE Toolkit, endorsed by the Centers for Disease Control and Prevention to reduce inappropriate antibiotic prescribing for viral respiratory infections in emergency and urgent care settings. In February 2020 we identified our first hospitalized patient with SARS-CoV(2). In March, efforts to limit person-to-person contact led to shelter in place orders and substantial reorganization of our healthcare system. During this time we continued to track rates of unnecessary antibiotic prescribing.

Methods: This was a single center observational study. Electronic medical record data were accessed to determine antibiotic prescribing and diagnosis codes. We provided monthly individual feedback to urgent care prescribers, (Sep 2019-Mar 2020), primary care, and ED providers (Jan 2020 – Mar 2020) notifying them of their specific rate of unnecessary antibiotic prescribing and labeling them as a top performer or not a top performer compared to their peers. The primary outcome was rate of inappropriate antibiotic prescribing.

Results: Pre toolkit intervention, 14,398 patient visits met MITIGATE inclusion criteria and 12% received an antibiotic unnecessarily in Jan-April 2019. Post-toolkit intervention, 12,328 patient visits met inclusion criteria and 7% received an antibiotic unnecessarily in Jan-April 2020. In April 2020, patient visits dropped to 10–50% of what they were in March 2020 and April 2019. During this time the unnecessary antibiotic prescribing rate doubled in urgent care to 7.8% from 3.6% the previous month and stayed stable in primary care and the ED at 3.2% and 11.8% respectively in April compared to 4.6% and 10.4% in the previous month.

Conclusion: Rates of inappropriate antibiotic prescribing were reduced nearly in half from 2019 to 2020 across 3 ambulatory care settings. The increase in prescribing in April seen in urgent care and after providers stopped receiving their monthly feedback is concerning. Many factors may have contributed to this increase, but it raises concerns for increased inappropriate antibacterial usage as a side effect of the SARS-CoV(2) pandemic.

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144. Little evidence of same-day, oral antibiotic prescribing at ambulatory surgery centers

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Session: P-5. Antimicrobial Stewardship: Non-Inpatient Settings

Background: The objective of our study was to describe oral antibiotic prescriptions associated with procedures in ambulatory surgery centers (ASC) to evaluate if there are major national opportunities to improve antibiotic use in this setting.

Methods: We identified surgical procedures in ASCs and oral antibiotic prescriptions in the IBM[®] MarketScan[®] Commercial 2018 database, a large convenience sample of privately-insured individuals aged < 65 years. We excluded visits with same-day hospitalizations and those with infectious diagnoses that may warrant antibiotic treatment. We included only antibiotic prescriptions dispensed on the same day as an ASC visit. We calculated the number of visits and oral antibiotic prescriptions and the percent of visits with oral antibiotic prescriptions overall, and by patient age group (< 18 and 18–64 years), antibiotic class, and procedure type. We also calculated median antibiotic course length. Across-group comparisons were evaluated using chi-square tests.

Results: In 2018, 918,127 ASC visits with surgical procedure codes were captured, of which 37,032 (4.0%) were associated with same-day oral antibiotic prescriptions. The percent of visits with antibiotic prescriptions was significantly higher among children compared to adults (9.4% vs 3.8%; $p < 0.01$); however, adults accounted for 89% of prescriptions. Respiratory/nasal and urinary tract system procedures were most frequently associated with antibiotic prescriptions (Figure). Median course length was 5 (interquartile range 3–7) days. The most common antibiotic class was cephalosporins (49.6% of prescriptions), followed by penicillins (12.6%) and fluoroquinolones (10.9%).