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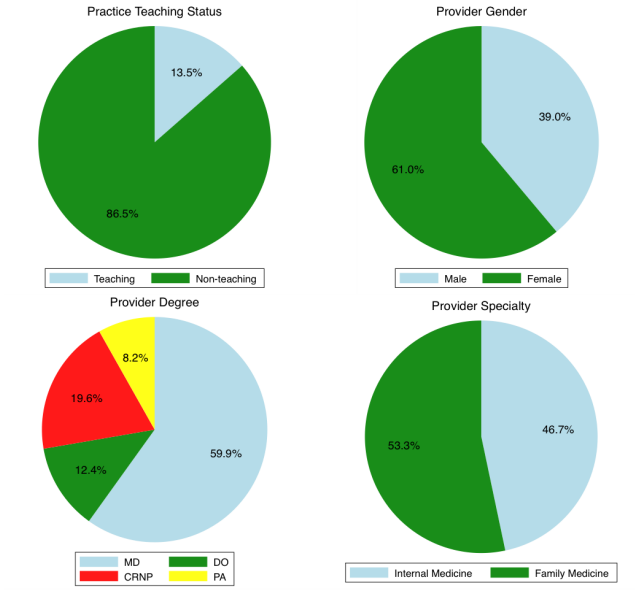
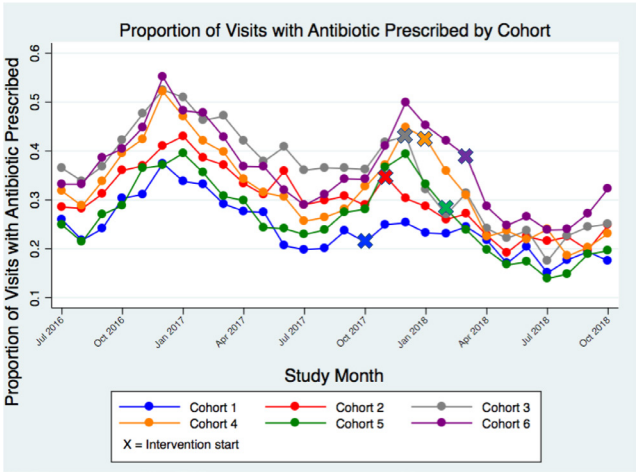
Background. Antimicrobial stewardship often focuses on inpatients, yet inappropriate antimicrobial use is common in the outpatient setting. We performed a prospective, stepped wedge interventional study to assess the impact of an educational and feedback-based intervention on prescribing practices for respiratory tract infections (RTIs) in the adult primary care ambulatory setting.

Methods. Family and internal medicine practices were randomly placed into 6 cohorts, which received the intervention in a stepped wedge fashion at monthly intervals. The study period was July 1, 2016 to October 31, 2018, with the intervention occurring from October 1, 2017 to October 31, 2018. The intervention consisted of a 20-minute in-person educational session on appropriate antimicrobial prescribing for RTIs followed by monthly feedback to individual providers on their proportion of antibiotic prescriptions in comparison to their peers for (1) visits with a primary diagnosis of any RTI and (2) visits with a primary diagnosis of an RTI for which an antibiotic should rarely be prescribed (tier 3 diagnoses). The outcome of interest was whether an antibiotic was prescribed in RTI visits. Chi squared testing and logistic regression were used for analysis.

Results. Thirty-two practices participated, with 197,814 unique visits with a primary RTI diagnosis. Of these, 141,888 (71.7%) were physician visits and 55,926 (28.3%) were advanced practitioner visits (Figure 1). The proportion of visits with antibiotic prescriptions dropped from 37.2% to 24.0% following the intervention ($P < 0.0001$). Antibiotic prescriptions were significantly reduced for all primary RTI visits, OR 0.53 (95% CI 0.52 to 0.54), as well as for visits with tier 3 RTI diagnoses, OR 0.64 (95% CI 0.60 to 0.68). The proportion of visits with antibiotic prescriptions also exhibited a marked seasonal variation, another finding of the study (Figure 2).

Conclusion. An educational intervention with provider feedback successfully reduced antibiotic prescribing for RTIs in the ambulatory setting. Additional study is necessary to assess the sustainability of response over time after discontinuation of the monthly feedback.





Disclosures. **All authors:** No reported disclosures.

2068. Outpatient Antimicrobial Stewardship: Optimizing Patient Care Via Pharmacist Led Culture Review

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Background. Antimicrobial stewardship programs are well established in the inpatient setting; however, progress has lagged in the outpatient setting. With a growing need for outpatient stewardship, data are needed to guide the development of new services to improve patient care. Many times, cultures are taken in the outpatient setting but results are not acted upon, leading to unnecessary re-presentations to the healthcare setting.

Methods. This study was a prospective chart review via the computerized patient record system with interventions made as needed between January 1, 2018 and January 1, 2019. Infectious Diseases received alerts when oral antibiotics for outpatient use were ordered. Cultures were reviewed daily to ensure drug-bug match and timely interventions. The primary objective of this study was to compare outcomes in patients with accepted interventions vs. rejected interventions: 30-day re-presentation rates, 30-day admission rates, and 30-day treatment failure. Descriptive statistics were used to summarize data.

Results. A total of 7,360 antibiotic orders were reviewed in real time by Infectious Diseases. Of which, 965 encounters with cultures were included in the culture review service. Pharmacists intervened on 20.1% ($n = 194$) of patient encounters. The majority of antibiotic prescriptions that required intervention were from the emergency department (42%) and primary care (39%), with the remaining 19% being from various outpatient specialty clinics. The most common antibiotics prescribed for patients requiring intervention were ciprofloxacin (26%), third-generation cephalosporins (22%), and sulfamethoxazole/trimethoprim (18%). The most common indication for use was urinary tract infection. The intervention acceptance rate was 76%. Intervention significantly decreased rates of 30-day treatment failure (5% vs. 28%, $P < 0.0001$) and 30-day admission (0.7% vs. 11%, $P = 0.0005$) when interventions were accepted rather than rejected.

Conclusion. Culture review service positively impacted outcomes for patients in the outpatient setting. For those antibiotic orders that required intervention, the intervention significantly decreased rates of 30-day treatment failure and 30-day admission when interventions were accepted.

Disclosures. **All authors:** No reported disclosures.

2069. A Unique Approach to Outpatient Antibiotic Stewardship in Rural Southern Ohio

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Background. A five county rural community in southern Ohio was identified as having significantly higher than average rates of antibiotic use. The hospital system serving this area, Southern Ohio Medical Center (SOMC), began initial efforts in antimicrobial stewardship focusing on inpatient prescribing. However, most antimicrobial consumption occurs in the outpatient setting. Early attempts to improve antibiotic prescribing focused on only provider education and resulted in little change. Providers felt they were performing well, or their patients were more complex and prescribing the antibiotics was warranted. SOMC partnered with the state Quality Improvement Organization, HSAG, to design an intervention to address these challenges.

Methods. All outpatient and emergency room encounters with acute bronchitis and upper respiratory infection (URI) (ICD-10 codes [J00, J06.9, and J20.X]) were included in the analysis. Using criteria from a National Quality Forum measure, concomitant diagnoses were excluded to identify encounters where an associated condition may indicate the case is more complex. A 6-month baseline and two additional 6-month remeasurement periods were analyzed. Providers were given letters, peer-to-peer antimicrobial data comparison, and in-person feedback with guideline-driven recommendations for these conditions.

Results. Baseline analysis indicated 50% of all encounters without a coded concomitant diagnosis resulted in antibiotic prescriptions. There was a reduction in the overall rate at each remeasurement period, to 34% and then 12%. This resulted in a 76% relative improvement rate (RIR) overall at the final remeasurement period. At baseline, the highest volume setting, urgent care, had a prescribing rate of 71%. Urgent-care prescriptions reduced each remeasurement to 45% and 13%, resulting in an 81% RIR.

Conclusion. Implementing a robust outpatient stewardship program in a rural nonacademic setting is not without unique challenges. By using peer comparison of provider performance data on prescribing habits in uncomplicated patients with URI and acute bronchitis in addition to education, the rate of appropriate antibiotic use improved.