viral testing data for days 0–14. We used generalized estimating equations to test for associations of baseline factors with a ≥1 antibiotic prescription for URI while accounting for correlation among patients seen by the same provider.

Results. Of the 341 charts reviewed, 251 (74%) patients, seen by 99 providers were eligible for analysis. A total of 162/251 (65%) had an underlying hematologic malignancy or disorder; of those, 51% had a prior hematopoietic cell transplant. Eighty-four (33%) received ≥1 antibiotic prescription for URI with 63% ordered on day 0. Azithromycin (47%) and fluoroquinolones (25%) were most often prescribed. One hundred thirteen (45%) patients had respiratory viral testing performed; 85 (75%) tested positive (Figure 1). Both antibiotic prescribing ($P = 0.005$) and viral testing ($P < 0.001$) varied by clinical service (Figure 2). Viral testing on day 0 was associated with lower risk of antibiotic prescribing while sputum production or chest congestion was associated with higher risk of antibiotic prescribing (Figure 3).

Conclusion. Antibiotics were prescribed in one in three oncology outpatients with URI, although viral etiologies were identified in most who were tested. Respiratory viral testing was associated with reduced antibiotic prescribing though collinearity between clinical service and viral testing limited our ability to separate these effects on antibiotic prescribing. It is important to further explore the role of viral testing in antibiotic prescribing for URI in outpatient oncology settings.

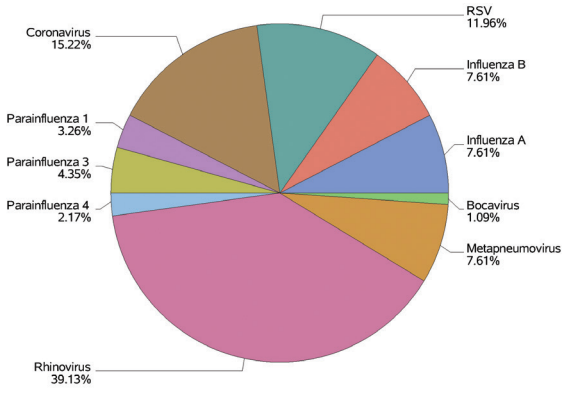

Figure 1. Respiratory virus detected among positive tests, using the first test per patient.

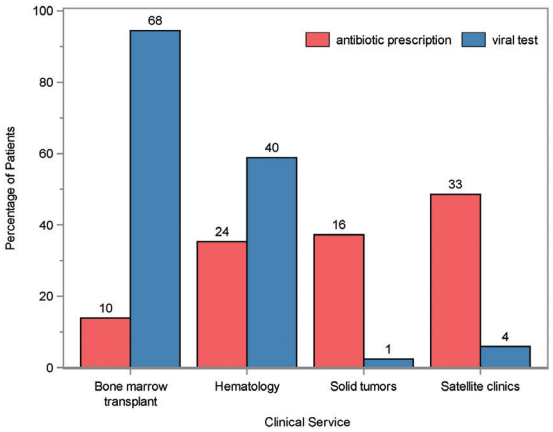

Figure 2. Frequency of antibiotic prescriptions and respiratory viral tests for URI in days 0-14 by clinical service. Numbers atop the bars show the number of patients in each category.

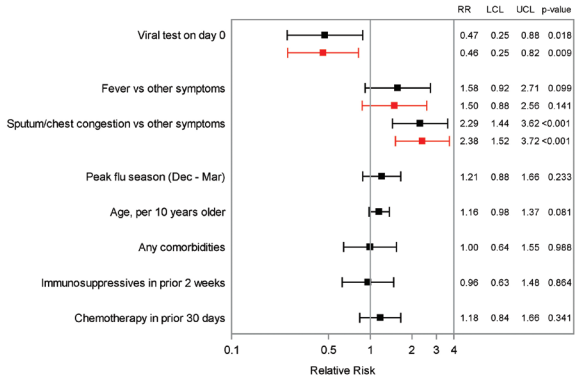

Figure 3. Associations of baseline factors with antibiotic prescription for URI in 14 days after first clinical encounter for the URI. Black estimates are from univariable models, red estimates are from multivariable model including viral testing and symptoms. RR=relative risk, LCL=lower limit of 95% CI, UCL=upper limit of 95% CI.

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

207. Impact of Educational Interventions on Antibiotic Prescribing for Acute Upper Respiratory Tract Infections in the Ambulatory Care Setting

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Background. Acute upper respiratory tract infections (URI) result in significant outpatient antimicrobial prescriptions and are targets for antimicrobial stewardship efforts given they are often of viral origin. Our objective was to evaluate the impact of educational antimicrobial stewardship initiatives on the proportion of URI treated with antibiotics in a large, ambulatory setting that included Internal Medicine and Family Medicine clinics.

Methods. This quasi-experimental pre–post intervention study evaluated antibiotic prescribing for URI from January 1, 2016 to December 31, 2017. The calendar year 2016 was considered the preintervention time period. The stewardship interventions were implemented in December 2016 and included practitioner education on URI treatment guidelines (education) and commitment to safe antibiotic use posters displayed in patient rooms and clinic waiting areas (poster). Education was provided in both clinics whereas posters were displayed only in the family medicine clinic. ICD-10 codes were used to identify cases, excluding patients with COPD. The primary endpoint was the proportion of patient visits for URI where antibiotics were prescribed for the treatment of acute bronchitis, influenza, and unspecified viral infection collectively.

Results. There were 1,533 encounters preintervention and 1,479 postintervention. In the internal medicine clinic (education only), the rate of antibiotics prescribed for all URI diagnoses preintervention was 24.5% vs. 19.0% post ($P = 0.022$). In the family medicine clinic (education + poster), the antibiotic prescribing rate for all URI diagnoses preintervention was 11.0% vs. 9.4% post ($P = 0.242$). The overall rate of antibiotics prescribed for all clinics was 16.6% preintervention vs. 13.0% postintervention ($P = 0.009$).

Conclusion. The educational and antimicrobial stewardship initiatives implemented in these outpatient clinics may have contributed to a significantly reduced rate of inappropriately prescribed antibiotics for URI in the internal medicine clinic and both clinics overall. The addition of the poster was not associated with a significant change in practice. However, these results demonstrate the potential utility of the educational initiative, and that stewardship strategies may have a different impact by clinic setting.

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

208. Trends in Antibiotic Prescribing for Acute Respiratory Tract Infections and Implementation of a Provider-Directed Intervention Within the Veterans Affairs Healthcare System (VA)

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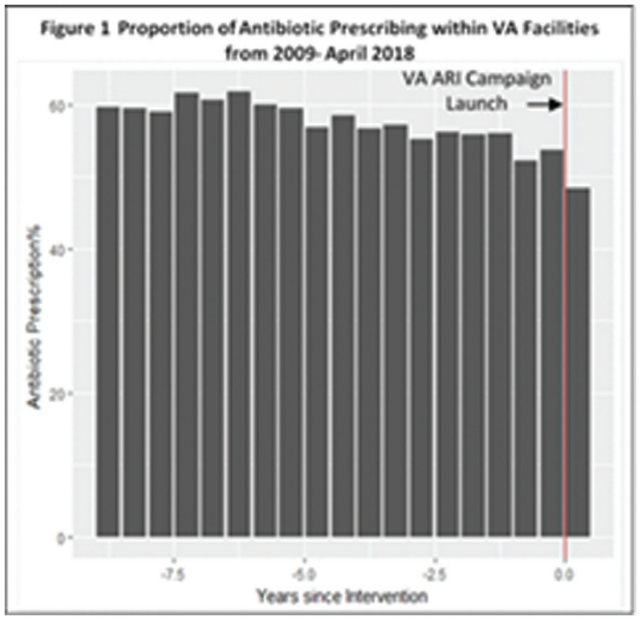
Background. We report VA-wide trends over time in acute respiratory infection (ARI) antibiotic prescribing, and early assessment of an intervention to improve ARI management.

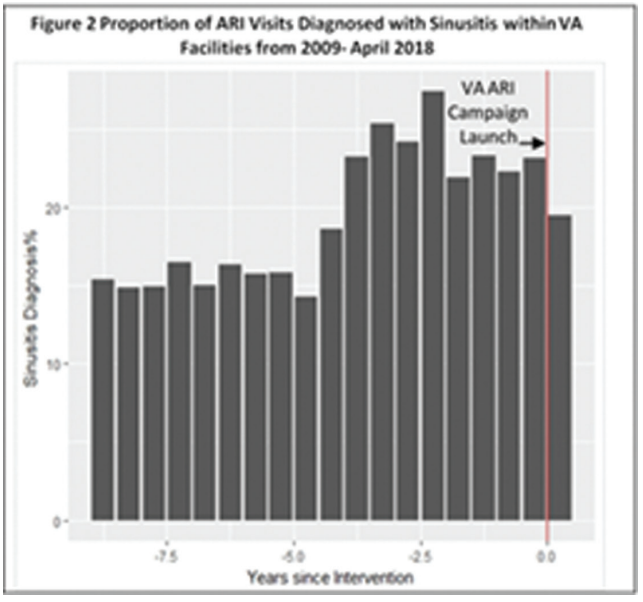
Methods. We created a retrospective cohort of ARI (sinusitis, pharyngitis, bronchitis, and URI-NOS) visits between 2009 and April 2018. Patients with complicating conditions were excluded. Antibiotic prescribing rates were calculated. A provider-directed VA-wide ARI campaign was initiated in October 2017. The Campaign was implemented locally by antibiotic stewards or regional personnel trained in academic detailing (AD). Campaign components: dashboards for tracking provider and facility prescribing metrics, printable feedback reports, and AD educational materials. Metrics include: ARI antibiotic prescribing rates, bronchitis/URI-NOS antibiotic prescribing rates, guideline-concordant antibiotic selection for sinusitis or pharyngitis, and proportion of ARI visits with a sinusitis diagnosis. A Logistic generalized estimating equation model assessed metrics over time pre-/postintervention and χ^2 tests compared guideline concordant antibiotic proportions pre-/postintervention.

Results. There were 1,580,612 and 137,421 ARI visits pre-/postintervention, respectively. Antibiotic prescribing decreased from 2009, annual odds ratio (OR) 0.94 [95% CI 0.93, 0.96; $P < 0.001$]. An additional effect was observed postintervention

[OR 0.88, (0.84, 0.88), $P < 0.001$]. Bronchitis/URI-NOS prescribing rates decreased from 2009 [annual OR 0.94 (CI 0.93, 0.95), $P < 0.001$]. Additional effect was observed postintervention [OR 0.86, (0.81, 0.91), $P < 0.001$]. Overall, the proportion of ARI visits diagnosed with sinusitis increased [annual OR 1.09 (1.08, 1.10), $P < 0.01$], but the proportion of sinusitis diagnoses decreased [OR 0.72 (0.69, 0.75), $P < 0.001$] postintervention. Guideline-concordant antibiotic selection was 61.5% vs. 71.2% for sinusitis and 63.3% vs. 67.8% for pharyngitis pre-/postintervention, respectively (both $P < 0.001$).

Conclusion. Antibiotic prescribing rates for ARIs within the VA have steadily declined since 2010. Additional decline in antibiotic prescribing was associated with the launch of a national campaign to improve ARI management.





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

209. Impact of a Risk-based CAP Prescribing Guideline Paired with Antimicrobial Stewardship to Improve Antibiotic Prescribing for Patients at Low Risk for Drug-Resistant Pathogens

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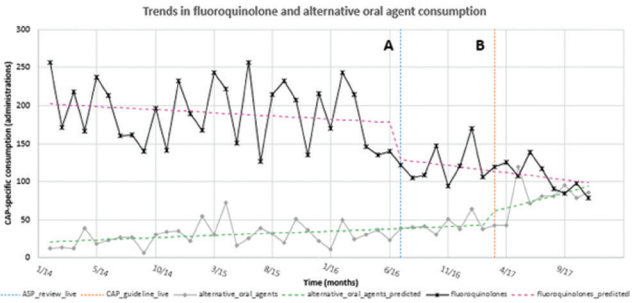
Background. Antimicrobial stewardship programs (ASPs) reduce the burden of multidrug-resistant organisms and improve antibiotic prescribing. Concerns about drug-resistant pathogens (DRPs) in community-acquired pneumonia (CAP) lead to over-prescribing of broad-spectrum antibiotics, and ASP interventions to improve CAP prescribing are not well defined. In 2017, our hospital implemented a CAP guideline for patients at low risk for DRPs along with ASP support. The purpose of this study was to evaluate the impact of the guideline with ASP support on CAP-specific antibiotic prescribing.

Methods. This was a pragmatic two-phase quasi-experimental analysis of CAP-specific antibiotic consumption before and after implementation of a CAP guideline evaluated according to each phase of implementation. The guideline provided Gram-positive and Gram-negative risk factors and guidance on oral fluoroquinolone (FQs) alternatives. ASP interventions were implemented in two phases: (A) prospective audit and feedback in July 2016 and (B) publication of guideline with education in March 2017. Impact of each intervention was evaluated by interrupted time series segmented-regression analysis. Univariate statistics were calculated using EpiInfo 7. Least-squares segmented regressions were completed in Microsoft Excel.

Results. CAP-specific antibiotic administrations were 782 over the entire study period, with 764, 771, and 928 administrations observed before phase A, after A, and after B, respectively. Macrolide consumption increased after the guideline ($P = 0.029$). We observed a significant step change decrease in FQ consumption was observed after phase A) ($P = 0.039$) and a positive upward trend in oral alternatives agents after phase B ($P = 0.090$), as shown in the figure. Consumption of broad Gram-negative agents and vancomycin/linezolid were not significantly different after the guideline.

Conclusion. Implementation of a CAP guideline with patient-specific and DRP risk factors was associated with significant changes in CAP-specific prescribing. Changes in prescribing were temporally associated with ASP interventions. Additional studies into the impact of this guideline on correct classification of Gram-negative resistance and clinical outcomes are needed.



Disclosures. **D. Martin**, GlaxoSmithKline: Independent Contractor, Salary
Syneos Health: Employee, Salary. **R. G. Wunderink**, Achaogen: Consultant, Consulting fee. Arsanis: Consultant, Consulting fee. Bayer: Consultant, Consulting fee. GlaxoSmithKline: Consultant, Consulting fee. KBP Biosciences: Consultant, Consulting fee. Meiji-Seiko: Consultant, Consulting fee. Merck: Consultant, Consulting fee. Nabriva: Consultant, Consulting fee. Polyphor: Consultant, Consulting fee. Roche/Genetech: Consultant, Consulting fee. Shionogi: Consultant, Consulting fee. The Medicines Company: Consultant, Consulting fee. Accelerate Diagnostics: Consultant, Consulting fee. Curetis: Consultant, Consulting fee. bioMerieux: Consultant, Consulting fee. **M. H. Scheetz**, Merck & Co., Inc.: Grant Investigator, Grant recipient. Bayer: Consultant, Consulting fee.

210. Improved Antimicrobial Utilization in the Emergency Department: Impact of a Point of Care Polymerase Chain Reaction Test for The Rapid Detection Influenza

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Background. Due to poor sensitivity, the FDA mandated that rapid influenza antigen (IAT) must be phased out by 2018. At our institution an on-site rapid influenza PCR (PCR) was implemented in emergency departments (ED) at the start of the 2016–2017 influenza season. The purpose of this study was to examine the impact of influenza PCR testing on antimicrobial utilization in the ED.

Methods. This multicenter quasiexperimental study included adults over the age of 50 who were tested for influenza, and discharged from the ED. Subjects were matched 2:1 by age, sex, month of testing, and ED site. The pre-implementation group had IAT (January–April 2016) and the post-implementation had PCR testing (January–April 2017). The primary outcome was antiviral utilization. Other outcomes included diagnostic yield, test turnaround time (TAT), receipt of antibiotics, and 30-day revisit.