care providers (PCPs) have shown promise in reducing inappropriate antibiotic prescribing for RTIs. While one perceived barrier to such interventions is the concern that these adversely impact patient satisfaction, few data exist in this area. Here, we examine whether a recent PCP-targeted intervention that significantly reduced antibiotic prescribing for RTIs was associated with a change in patient satisfaction.

Methods. The PCP-targeted intervention involved monthly education sessions and peer benchmarking reports delivered to 31 clinics within an academic health system, and was previously shown to reduce antibiotic prescribing. Here, we performed a retrospective, secondary analysis of Press Ganey (PG) surveys associated with the outpatient encounters in the pre- and post-intervention periods. We evaluated the impact on patient perceptions of PCPs based on provider exposure to the intervention using a mixed effects logistic regression model.

Results. There were 17,416 out of 197,744 encounters (8.8%) with associated PG surveys for the study time period (July 2016 to September 2018). In the multivariate model, patient satisfaction with PCPs was most strongly associated with patient-level characteristics (age, race, health status, education status) and survey-level characteristics (survey response time, patient’s usual provider) (Figure 1). Satisfaction with PCPs did not change following delivery of the provider-based intervention even after adjusting for patient- and survey-level characteristics (adjusted odds ratio (95% CI): 1.146 (1.06, 1.244)). However, a small increase in satisfaction associated with receiving antibiotics during the entire study period was seen (adjusted odds ratio (95% CI): 1.146 (1.06, 1.244)).

Figure 1: Association of a provider-targeted intervention as well as patient, provider, and practice characteristics with patient satisfaction in a multivariable mixed effects logistic regression model.

Conclusion. Regional variability in outpatient antibiotic prescribing for Tier 2 and 3 ARTIs remained even after controlling for patient age, comorbidities, and setting of care. It is likely that this variability is in part due to non-clinical factors such as regional differences in clinicians’ prescribing habits and patient expectations. Targeted and enhanced public health stewardship interventions are needed to address cultural factors that affect antibiotic prescribing in outpatient settings.

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24. Antibiotic Use in Hospital Emergency Departments and Observation Settings from 2012–2018 in a Large Cohort of U.S. Hospitals
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Background. While discharge antibiotic prescriptions from emergency department (ED) visits have been reported, systemic antibiotic use during ED and hospital observation (OBS) visits have not been well assessed. We conducted a descriptive analysis of antibiotic use in these settings.

Methods. We identified ED and OBS visits not resulting in hospitalization, and systemic antibiotics administration charges during these visits from January 2012–December 2018 using the Premier Healthcare Database, representing at least 600 hospitals annually. Antibiotics prescribed after discharge were excluded. We reported the proportion of visits with antibiotic use, and described antibiotic use by class, agent and route stratified by location. We also examined trends in antibiotic use over time using a multivariable logistic model.

Results. We assessed 161,291,011 ED visits and 15,660,062 OBS visits from 2012–2018. Systemic antibiotics were identified in 9.0% of ED visits and 25.2% of OBS visits. Parenteral (IV) antibiotics were received in a high proportion of ED and OBS visits in which a systemic antibiotic was received (52.6% and 87.6% respectively). In the ED, 1st/2nd generation cephalosporins were the most commonly identified (32.7%) while in the OBS, 1st/2nd generation cephalosporins were most commonly identified (38.9%). Fig. 1. The most common agents in the ED were ceftriaxone, azithromycin, and cephalexin while the most common agents in the OBS were cefazolin, ceftriaxone, and levofloxacin. Any systemic antibiotic use in EDs decreased slightly from 2012–2018 (9.2%–8.9%, p < 0.0001) while use in OBS settings saw the largest increase from 2017–2018 (25.4%–30.4%, p < 0.0001). Fig. 2. Fluoroquinolone use decreased in both ED (41.3%) and OBS (31.2%) (both p < 0.0001) beginning in years 2012 and 2016 respectively.

Figure 1: Antibiotic use in emergency departments and observation settings by antibiotic class, Premier Healthcare Database Hospitals, 2012–2018.