consistent ASP. We sought to develop a tool that would better identify hospitals in need of aggressive AURGs.

Methods. A scoring tool was developed to assess ASP implementation and metric achievement at individual hospitals to determine AURGs. Tool components were developed from ASP best practices and consensus among a multi-disciplinary team. The tool yields a maximal score of 41.9 points, with higher scores corresponding to more established ASPs who require less aggressive AURGs. An additional 6 points could be earned for tracked intervention data.

Figure 1. Scoring Tool Components

The tool was applied and a score calculated for each of 27 hospitals. Achieved score placed each hospital into one of 4 AURG ranges: maintain, 1–2.5%, 2.5–5%, and 5–7.5% of DOT/1000 PD. Goals were determined in relation to the median and 75th percentile scores. A minimum score of 39.5, representing full implementation of ASP score components, was required for a maintenance goal.

Results. Scores ranged from 3 to 34.5 points across facilities (median 27.5, 75th percentile 31). Twelve facilities scored below 27.5 points, 10 hospitals between 27.5 and 31 points, and 5 facilities between 31 and 39.5 points corresponding to 5–7.5%, 2.5–5% and 1–2.5% AURGs, respectively.

Figure 2. Facility Scores and AURGs

Conclusion. Scores and corresponding AURGs were generally well accepted by stakeholders at facilities within the AH network. Next steps include examining the feasibility of achieving AURGs and obtaining feedback from facilities to refine the tool. The tool will also be applied to other healthcare networks to assess external validity.

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1632. Non-Visit-Based and Non-Infection-Related Ambulatory Antibiotic Prescribing

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Background. Antibiotic prescribing in the ED and urgent care center (UCC) visits for antibiotic inappropriate or presumed viral acute respiratory infection (ARI). Unnecessary antibiotic use increases adverse events, antibiotic resistance, and healthcare costs. Antibiotic stewardship in the ED and UCC requires specific implementation tailored to these unique settings.

Objective. To evaluate the comparative effectiveness of patient and provider education adapted for the acute care setting (adaptation intervention) to an intervention with behavioral nudges and individual peer comparisons (enhanced intervention), on reducing inappropriate antibiotic use for ARI in EDs and UCCs.

Methods. Pragmatic, cluster randomized clinical trial conducted in 3 academic health systems (1 pediatric-only, 2 serving adults and children) that included adult and pediatric EDs and 4 UCCs. Sites were block randomized by health system, and providers at each site assigned to receive the adapted or enhanced intervention. Implementation science strategies were employed to tailor interventions at each site. The main outcome was the proportion of antibiotic inappropriate ARI diagnosis visits that received an antibiotic. We estimated a hierarchical mixed effects logistic regression model for visits that occurred between November and February for 2016–2017 (baseline) and 2017–2018 (intervention), controlling for organization and provider fixed effects.

Results. Across all sites, there were 45,160 ARI visits among 534 providers, with overall antibiotic prescribing at 2.6%; the pediatric-only system had a lower baseline rate (1.6%) compared with the other 2 systems (5.0% and 7.1%), P < 0.001. Despite the unusually low rate, we found a significant reduction in inappropriate prescribing after adjusting for health-system and provider-level effects from 2.6% to 1.4% (odds ratio 0.52; 95% CI 0.38–0.72). Reductions in prescribing between the 2 interventions were in the expected direction, but not significantly different (P = 0.062).

Conclusion. Implementation of antimicrobial stewardship for ARI is feasible and effective in the ED and UCC settings. The enhanced behavioral nudging methods were not more effective in high-performance settings.

Disclosures. All authors: No reported disclosures.

1634. A 9-Point Risk Assessment for Patients Who Inject Drugs Requiring Intravenous Antibiotics May Allow Health Systems to Focus Inpatient Resources on Those at Greatest Risk of Ongoing Drug Use

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Background. Inpatients with active intravenous drug use (IDU) are at high risk of inappropriate antibiotic therapy. We developed a 9-point risk assessment tool that can help identify IDU patients at higher risk of inappropriate antibiotic therapy.

Methods. We measured the prevalence of non-visit-based and non-infection-related oral, antibacterial–antibiotic prescribing between November 2015 and October 2017 using the EHR of an integrated health delivery system. We examined the visit type (in-person vs. other) and classified prescriptions into 3 mutually exclusive groups based on same-day diagnosis codes: (1) infection-related for prescriptions associated with at least one of 21,730 ICD-10 codes that may signify infection; (2) non-infection-related for prescriptions only associated with the 72,519 ICD-10 codes that do not signify infections; and (3) associated with no diagnosis.

Results. There were 599,534 antibiotic prescriptions made to 279,169 unique patients by 2,413 clinicians in 514 clinics. Patients had a mean age of 43 years old, were 60% women, and 75% white. Clinicians were 54% women; were 63% attending physicians, 18% residents/fellows, 10% nurse practitioners, and 7% physician assistants; and were 41 medical specialists, 21% primary care clinicians, and 7% surgical specialists. The most common antibiotic classes were penicillins (30%), macrolides (23%), cephalosporins (14%), fluoroquinolones (11%), tetracyclines (10%), and sulfonamides (6%). Clinicians prescribed 20% of antibiotics outside of an in-person visit; prescription encounters were in-person (80%), telephone (10%), order-only (4%), refill (4%), and online portal (1%). Clinicians prescribed 46% of antibiotics without an infection-related diagnosis: 54% of antibiotic prescriptions were infection-related, 29% were non-infection-related, and 17% were associated with no diagnosis. Various look-back and look-forward durations for diagnosis codes changed the results only slightly.

Conclusion. Clinicians prescribed 20% of antibiotics outside of in-person visits and 46% of antibiotics without an infection-related diagnosis. Interventions that target visit-based, diagnosis-specific prescriptions miss a large share of antibiotic prescribing.

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**Background.** We implemented an Intravenous Antibiotics and Addiction Team (IVAT) intervention to identify hospitalized persons with a history of injection drug use (IDU) that are safe for discharge with IV antibiotics based on a 9-point risk assessment. IVAT has been shown to reduce average length of stay (ALOS) without increasing readmissions. We analyzed the cost savings of the IVAT to the health system.

**Methods.** PWID at the University of Alabama at Birmingham (UAB) hospital with indications for prolonged IV antibiotics received IVAT to determine risk of continued IDU. ‘Low-risk’ patients were discharged for outpatient antibiotics and addiction care; others continued inpatient antibiotics, group therapy, opioid agonist therapy (if applicable), and weekly assessment for discharge readiness. Cost of care was defined by direct costs and was obtained by querying financial accounts.

**Results.** A total of 37 pre-IVAT and 111 post-IVAT admissions (including 23 ‘low risk’) met study criteria. IVAT reduced ALOS by 20 days. Total direct costs per admission in the post-IVAT period were 33% lower: $2,081 vs $3,516 (Table 1). Because ALOS at UAB for all patients is 6.58 days, a 20-day ALOS reduction following IVAT creates capacity for an additional 333 patients ($\text{ALOS} = 6.58 \times 111$).

**Conclusion.** IVAT for PWID allows health systems to focus onpatient resources on those at greatest risk of ongoing IDU, creates additional inpatient capacity, and may cut hospital direct costs by one-third.

**Table 1:** Hospital Utilization Before and After IVAT Implementation

| Inpatient Costs | Pre-Intervention January 2015-February 2016 | Post-Intervention October 2016-January 2018 |
|-----------------|-------------------------------------------|-------------------------------------------|
| Number of admissions | N = 37 | N = 111 |
| Risk group | Low (N/A) | 25 (27%) |
| | Medium (56%) | 56 (61%) |
| | High (12%) | 11 (12%) |
| Total direct costs | $1,432,497 | $2,882,515 |
| Average LOS | 42 | 22 |
| Uninsured patients | 20 (%54) | 53 (%48) |
| Medicaid beneficiaries | 13 (35%) | 31 (28%) |
| Medicare beneficiaries | 3 (8%) | 9 (8%) |
| Commercially insured patients | 1 (3%) | 18 (16%) |
| Inpatient costs per admission | $38,716 | $26,014 |
| Direct costs/day | $922 | $1,182 |
| Inpatient costs per admission categorized by service | Nursing costs | $16,305 |
| | Pharmacy costs | $8,829 |
| | Surgery costs | $4,986 |
| | ICU costs | $2,568 |

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1635. Do Persons With Opioid Use Disorder and Injection-Related Infections Really Need Prolonged Hospitalizations to Complete Intravenous Antibiotic Therapy?

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**Session:** 166. Changing Clinical Practice for Changing Times

**Friday, October 5, 2018: 2:00 PM**

**Background.** Persons with opioid use disorder (OUD) hospitalized with severe, injection-related infections (e.g., endocarditis) often remain inpatient to complete intravenous (IV) antibiotics due to assumptions that, if outpatient, patients will inject drugs into the IV catheter and will fail to complete prescribed antibiotic regimen. No evidence supports these assumptions, and unfortunately, the inpatient stay infrequently includes OUD pharmacotherapy. The aim is to determine whether inpatients with OUD and injection-related infections can be safely discharged to complete antibiotic treatment in the clinic.

**Methods.** Pilot proof-of-concept, randomized study enrolling hospitalized adults with OUD and severe injection-related infections. Participants are provided inpatient buprenorphine treatment with counseling and randomized (1:1) to usual care (UC) [completing IV antibiotics inpatient] or to early discharge (ED) [completing IV antibiotics outpatient]. Both groups receive 12 weeks of comprehensive OUD treatment with buprenorphine after discharge.

**Results.** Seventy-six patients screened, 20 met eligibility criteria, provided informed consent, and randomized; 10 to UC and 10 to ED. Similar baseline characteristics; 90% in UC with endocarditis and 100% in ED. Length of stay, UC: 45.9 days (SD ±7.8), ED 22.7 (SD ±7.5) (P = 0.001). Ten in UC and 9 in ED completed recommended IV antibiotic, one in ED group is still receiving antibiotics; ED finished 19.8 days earlier (∆11.7) IV antibiotics outpatient. Self-reported illicit opioid use 30 days before hospitalization compared with 12-week outpatient phase decreased in both groups (P = 0.009); no significant difference between groups (P = 0.141) (Figure 1).

**Conclusion.** Early results suggest patients with OUD and complex injection-related infections may be safely discharged to complete IV antibiotics via indwelling catheters if comprehensive OUD treatment with buprenorphine is started while inpatient and continued after discharge. Importantly, while prolonged inpatient care is common practice, viewed as protective but extremely costly, these data suggest that comprehensive outpatient care is feasible and may be cost-effective.

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1636. Variation in Clinical Practice Patterns Among Infectious Diseases Faculty at a Large Academic Institution

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**Background.** Clinical practice patterns vary between providers, but few studies have examined this variation among infectious disease (ID) physicians. Characterizing these differences in practice can help identify areas where targeted educational interventions or further research are needed to improve clinical decision-making. We describe a faculty survey conducted at our institution designed to identify clinical practice variation within a large academic ID division.

**Methods.** In January 2017, an electronic survey was distributed to all clinical ID faculty at our institution. The survey collected baseline demographic information as well as responses to 28 common clinical dilemmas encountered in routine practice. Descriptive statistics were performed.

**Results.** Twenty-four (44%) of 54 active clinical ID faculty (12 assistant professors, 6 associate professors, and 6 professors) completed the survey. Examples of clinical dilemmas with >80% agreement among faculty included: (1) S. aureus bacteremia should be a mandatory ID consult (88%) and (2) lumbar puncture should be performed for all patients with suspected ocular syphilis (88%). The majority of clinical dilemmas had less than 80% agreement, and these spanned the range of routine ID practice. Examples included: (1) use of ceftriaxone for outpatient antibiotic therapy for nonbacterial invasive methicillin-susceptible S. aureus infections (58% agree), (2) length of treatment for guideline-defined uncomplicated S. aureus bacteremia (50% 2 weeks, 50% 4 weeks), (3) use of fixed-dose dolgutegravir/abacavir/lamivudine as a single-drug regimen for an HIV-infected patient with an M184V mutation (42% agree), and (4) benefit of routine anal Pap smears among HIV-infected men who have sex with men (50% agree).

**Conclusion.** Practice patterns vary between ID physicians within our institution, particularly for clinical dilemmas for which there is insufficient or conflicting published data. Further studies to examine practice pattern variation among ID physicians across institutions and geographic regions could identify areas where further research or educational interventions are needed to enhance clinical care.

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1637. Improving Transitions of Care in the Division of Infectious Diseases

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**Session:** 166. Changing Clinical Practice for Changing Times

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**Background.** Patients dismissed from the hospital on oral or intravenous antibiotics frequently need follow-up appointments with the Division of Infectious Diseases (ID). Follow-up appointments may be inappropriately scheduled with respect to timing and indication. Suboptimal transitions of care may lead to increased no-shows and ultimately poor patient outcomes.

**Methods.** The baseline sample included 102 patients seen by the inpatient ID service at Mayo Clinic's Rochester Methodist and Saint Mary's Hospitals between January 1, 2017 and June 30, 2017. Defects in transitions of care were categorized as errors or educational interventions are needed to enhance clinical care.

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