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 25 "low risk") met study criteria. IVAT reduced ALOS by 20 days. Total direct costs per admission in the post-IVAT period were 33% lower: $26,014 versus $38,716 (Table 1). Because ALOS at UAB for all patients is 6.58 days, a 20-day ALOS reduction following IVAT creates capacity for an additional 333 patients ($n = 20/6.58 \times 111$).

Conclusion. IVAT for PWID allows health systems to focus inpatient resources on those at greatest risk of ongoing IVDU, 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 (61%)
High		11 (12%)
Total direct costs	$1,432,497	$2,887,515
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		
Total direct costs	$38,716	$26,014
Direct costs/day	$922	$1,182
Inpatient costs per admission categorized by service		
Nursing costs	$16,305	$9,139
Pharmacy costs	$8,829	$5,720
Surgery costs	$4,986	$3,474
ICU costs	$2,568	$2,081

Disclosures. **J. M. Rodriguez**, finch: Research Contractor, Research support. seres: Research Contractor, Research support.

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

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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 regimens. 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 antibiotics through a IV catheter in the context of comprehensive outpatient OUD treatment including buprenorphine.

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 antibiotics, one in ED group is still receiving antibiotics; ED finished 19.8 days (SD ±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 equi-effective.

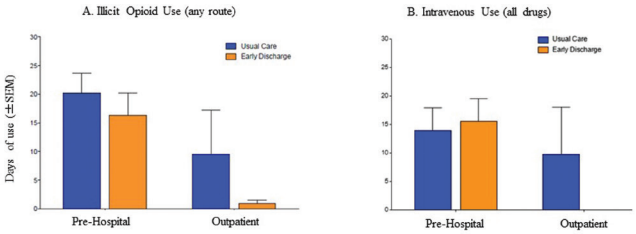

Figure 1. Self-reported days of illicit opioid use (Panel A), and intravenous use of all drugs (Panel B) in the 30-days prior to hospitalization compared to the 12-week outpatient phase in the usual care group (blue bars) compared to the early discharge group (orange bars).

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

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

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Session: 166. Changing Clinical Practice for Changing Times
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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 nonbacteremic 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 dolutegravir/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.

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

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 services 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 those pertaining to sign-off templates, sign-off labels, follow-up priority, and timing. The current transfer of care system from our institution is outlined in Figure 1.

Results. Out of 102 patients, 75 (74%) had at least one defect identified. Root cause analysis revealed multiple factors contributing to this performance gap (Figure 2). Patients often have variable health literacy and social or financial

difficulties. There are often multiple ID providers with inadequate time to properly orchestrate follow-up. There are undefined checkpoints and triaging in the department's scheduling policies. Interventions involved reformatting the ID sign-off template and clarifying the roles of providers in the transitions-of-care process. Analysis after 6 months of implementation revealed improvement of communication among teams, decline in improper sign off by 13% and decrease in antibiotic prescription errors by 2%.

Conclusion. This study demonstrates that well-designed sign-off templates can help with effective communication of the final treatment plan among providers and possibly improve patient outcomes. The target goal is to reduce the number of improper sign-offs by 50% within 1 year.

Figure 1. Current Transfer of Care

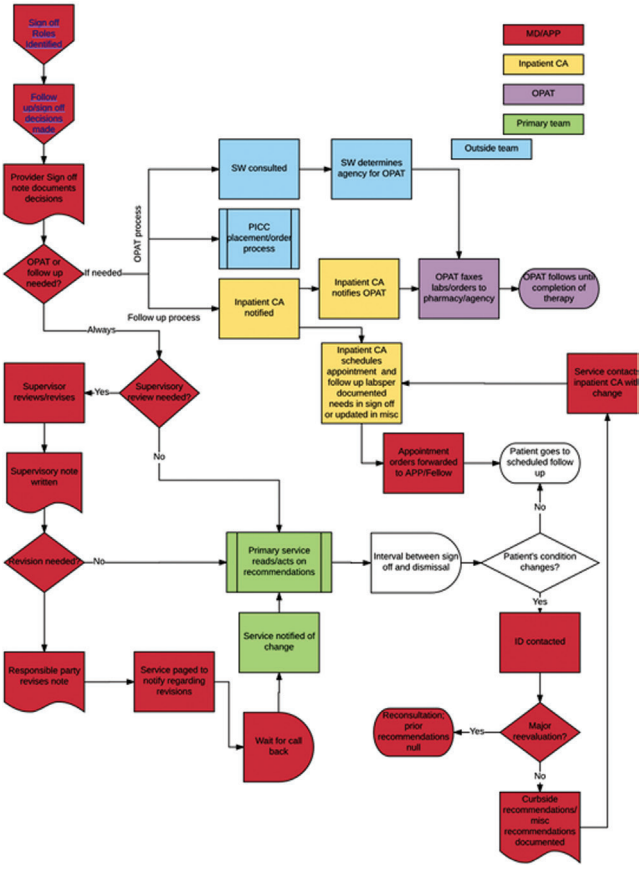
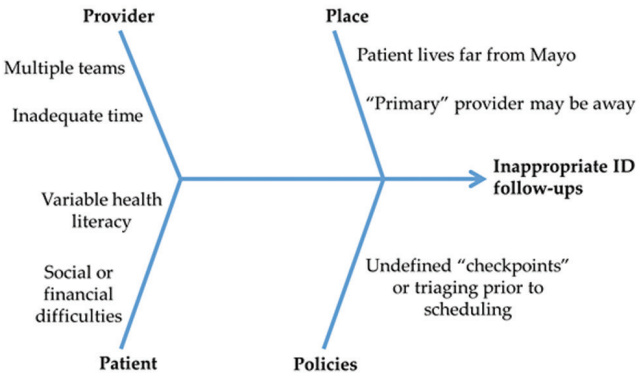


Figure 2. Root Cause Analysis



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

1638. Tele-Infectious Disease Consultation Produces Equivalent Outcomes as In-Person Consultation

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Session: 166. Changing Clinical Practice for Changing Times
Friday, October 5, 2018: 2:00 PM

Background. Technology can extend Infection Disease Consultants (IDCs) into resource limited small community US hospitals. We compared in-person infectious disease (ID) consults with Tele-ID consults to determine whether length of stay, antibiotic usage, drug cost, or readmission rates will remain the same between both groups over a 3-month period.

Methods. University of Maryland Harford Memorial Hospital (UM-HMH) is a 95-bed hospital including a 6-bed ICU. From May to August 2017 (study period) there was no IDC at UM-HMH. During study period, IDCs from a regional UM hospital provided formal Tele-ID consults through an HIPAA compliant secured Skype Business account. Patient history and wound examination were done by the IDC via video monitor while a bedside nurse assisted in performing the physical examination. Laboratory and radiological data were reviewed in real time as both hospitals shared the same electronic medical record and IT infrastructure (Meditech 6.15). A formal consultation was dictated and computer orders were entered by the IDC within 24 hours of the consult request. Daily Tele-ID follow-up rounds were conducted. IDCs had the authority to transfer a patient to the regional hospital for in-person care if deemed necessary. Study period was compared with a baseline period (May–August 2016) when IDCs were providing in-person consults at UM-HMH.

Results. Baseline period had 148 inpatient stays and study period had 148 inpatient stays. Despite similar case mix index in both groups, there was no statistical difference between the clinical outcomes. Results are shown in Table 1.

	Baseline Period	Study Period	*P* value
Patients (*n*)	148	148	–
Average length of stay	6.7	7.1	0.54
Case mix index	1.16	1.23	0.46
Average days on antibiotics	5.9	6.2	0.47
Average drug cost	$484	$496	0.85
Readmission %	22.2	17.8	0.38
Deaths	3	3	1

Conclusion. Tele-ID at our hospitals was noninferior to in-person ID consults. An integrated computer system, nursing support, and daily follow-up are key components of a successful Tele-ID program.

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

1639. Efficacy of Voriconazole Prophylaxis Followed by Therapeutic Liposomal Amphotericin B for the Treatment of Murine Pulmonary Aspergillosis Caused by Azole-Resistant *Aspergillus fumigatus* Strains

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Session: 168. Novel Therapies for Superbugs
Friday, October 5, 2018: 2:00 PM

Background. Antifungal treatment for pulmonary aspergillosis is more difficult if the fungal strain causing the infection is azole resistant. To investigate this problem, we used a murine model of pulmonary aspergillosis caused by azole-resistant *Aspergillus fumigatus* strains V29 and V45, and compared treatment with voriconazole (Vr, oral 40 mg/kg, bid) or liposomal amphotericin B (L-AmB, 5 mg/kg, IV) used alone or in combination.

Methods. Mice (n = 14/gp) were immunosuppressed with 24 mg/kg triamcinolone acetonide, IP, d-3, d-1, and d+1 relative to fungal challenge (d0). For 2 groups, Vr was given prophylactically (proph) d-3, d-2, d-1 followed by L-AmB or buffer, d+1, d+2, and d+3. The other groups were given Vr, L-AmB, Vr+L-AmB, or buffer d+1, d+2, and d+3. On d0, mice were given 1.3 to 1.6 × 10^7 *A. fumigatus* spores intranasally (Vr MIC = 64 µg/mL, V29; Vr MIC = 8 µg/mL, V45). On d+3, lungs were collected from 7 mice/gp and fungal burden determined by plating for colony forming units; 7 mice/gp were then monitored for morbidity to d+21.

Results. Optimum treatment was observed when Vr was given proph, followed by L-AmB post-challenge (Vr/L-AmB), with better survival (100%) for both fungal strains vs. buffer or Vr post-challenge ($P \leq 0.04$); for V29, significantly better survival was also seen with Vr/L-AmB vs. L-AmB or Vr+L-AmB post-challenge ($P \leq 0.01$). For strain V45, lung fungal burden was significantly lower for Vr/L-AmB versus all other treatments ($P \leq 0.04$), while for strain V29, fungal burden was lower for the Vf/L-AmB and L-AmB post-challenge groups versus the other groups, but the differences were not significant. Notably, although the lung fungal burden with Vr proph and Vr postchallenge were both similar to the buffer control, Vr proph yielded significantly better survival than Vr post-challenge ($P \leq 0.001$).

Conclusion. These preclinical observations demonstrate that combining L-AmB with Vr for the postchallenge treatment of pulmonary aspergillosis caused by azole-resistant strains is not an effective therapeutic option. However, the results do show that Vr proph, but not Vr postchallenge, can have some limited antifungal activity, and can significantly enhance the antifungal effects of post-challenge L-AmB. This regimen could be considered in areas where there is a high incidence of azole-resistant *A. fumigatus*.

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