in-hospital mortality (P = 0.36) between the short and long groups (Table 2). There were 7 adverse drug outcomes, 2 in the short group and 5 in the long group (Table 3).

**Conclusion.** Antibiotic de-escalation in AML patients with neutropenic fever with no identifiable infectious source was associated with a lower rate of recurrent fever without affecting ICU transfer, adverse drug events, and death. Physicians should consider de-escalation prior to ANC recovery in the appropriate setting.

| Variable                        | Cohort 1 early de-escalation N=38 | Cohort 2 until reengagement N=39 | Combined N=77 | P-value |
|---------------------------------|-----------------------------------|-----------------------------------|---------------|---------|
| Initial gram-negative treatment, n (%) | 35 (92%)                           | 35 (92%)                           | 70 (92%)      | 1.0000  |
| Cefepime                        | 3 (8%)                             | 0 (0%)                             | 4 (9%)        | 0.6745  |
| Piperacillin/tazobactam          | 2 (5%)                             | 2 (5%)                             | 4 (9%)        | 0.6745  |
| Aminopenem                      | 0 (0%)                             | 0 (0%)                             | 0 (0%)        | 1.0000  |
| Metronidazole                   | 2 (5%)                             | 2 (5%)                             | 4 (9%)        | 0.6745  |
| Other                            | 0 (0%)                             | 0 (0%)                             | 0 (0%)        | 1.0000  |
| Initial gram-positive treatment, n (%) | 30 (79%)                           | 24 (62%)                           | 64 (83%)      | 0.3150  |
| Vancomycin                      | 6 (16%)                            | 10 (26%)                           | 16 (21%)      | 0.5170  |
| Days of antibiotics for first neutropenic fever | 9 [6-13]                           | 15 [11-20]                         | 12 [11-17]    | 0.0008  |
| Median [IQR]                     | 5.5 [5.5]                          | 5.5 [5.5]                          | 5.5 [5.5]     |         |
| In-hospital mortality            | 1 (3%)                             | 1 (3%)                             | 2 (3%)        | 0.0000  |

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1091. An Ethnographic Approach to Interrogating Antimicrobial Stewardship at US Teaching Hospitals
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**Session:** 134. Antibiotic Stewardship: Stewardship Education
**Friday, October 4, 2019: 12:15 PM**

**Background.** Hospital antimicrobial stewardship programs (ASPs) deploy various evidence-based interventions aimed at improving antimicrobial use and reducing antimicrobial resistance. Little is known about how ASPs are perceived by hospital clinicians or how such data might inform ASP improvement. We conducted an ethnographic study of hospital ASPs and infectious diseases (ID) in Chicago, Illinois.

**Methods.** We conducted semistructured interviews with ID (N = 29), SICU (N = 10), and MICU (N = 19) practitioners at two affiliated teaching hospitals in Chicago, IL, between July 2017 and September 2018, accruing >576 hours of direct observations and 48 hours of semistructured interview data. Data collection and analysis centered on explicating the understandings and interpretations of ASPs present in diverse practice groups.

**Results.** Understandings and interpretations of ASPs varied greatly between the practice groups. ID practitioners commonly focused on “changing prescribing behavior” and “restricting inappropriate usage,” while MICU and SICU practitioners more often emphasized “following guidelines” and maintaining clinical “balance.” Additionally, direct observation data demonstrate that MICU and SICU practitioners are bounded by social and institutional determinants of antimicrobial prescribing (Table 1) that affect the pursuit of “appropriate antimicrobial use.”

**Conclusion.** Ethnographic interrogation found that practice groups understand and integrate ASPs differently according to everyday encounters with the social and institutional determinants of antimicrobial prescribing. ASP effectiveness might be enhanced by adopting a more mindful approach to accounting for and addressing the distinct understandings and interpretations of ASPs among diverse practice groups operating within the same institution.

**Table 1. Key Factors Influencing Antimicrobial Prescribing**

| Key Factors | Examples of Context |
|-------------|---------------------|
| Practitioner role in patient care | Consultant, Intern, Primary service (MICU) |
| Communication | Attending-attending, attending-fellow |
| Face-to-face vs. chart, formal vs. informal |
| Resources | Lab result availability and timeliness |
| Personnel (e.g. resident number) |
| Time Pressures | Professional rank and standing |
| Patient diagnosis | Visibility of pharmacist(s) |
| Interpersonal dynamics | Expert cultures (e.g. iO, surgery, critical care) |
| Understanding recommendations | Interpreting test results |

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1092. Impact of Relieving Infectious Diseases Fellows from Off-Hour/Weekend Antimicrobial Stewardship Coverage
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**Session:** 134. Antibiotic Stewardship: Stewardship Education
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**Background.** Antimicrobial stewardship programs (ASPs) often utilize Infectious Diseases fellows (IDFs) to cover pre-authorization processes during evening and weekend hours. IDFs often provide ASP coverage in addition to their patient consult roles. In response to increasing consult volume, we worked with our fellowship program to relieve IDFs of evening and weekend coverage (a decrease in fellow coverage by 26 hours per week) starting in October 2017. Members of the ASP assumed the majority of these evening and weekend hours. Additional post-prescription activities and a rotation in Infection Control and Antimicrobial Stewardship were implemented in response. We sought to analyze the impact of this intervention.

**Methods.** Intervention and medication data were extracted from the electronic medical record during 1 July 2017 through 30 September 2017 (IDF Coverage) and the same 3 months of 2018 (ASP Coverage). Comparisons between the two periods were performed using descriptive statistics of the number of interventions, number of weekend interventions, types of interventions, and days of therapy (DOT; per 1000 patient-days).

**Results.** Comparing July-September of 2017 and 2018, total ASP interventions increased 16% (1192 to 1391); weekend ASP interventions increased 75% (159 to 243). The most common interventions were “Choice of Therapy” (41% in both years), “De-Escalation” (17% in 2017, 16% in 2018), and “Dose/Interval Optimization” (10% in both years). The most intervened agents were piperacillin–tazobactam, cefepime, vancomycin, meropenem, and cefazidime.

**Comparing the same time periods, total antibiotic DOT decreased 4% (714.1 to 684.9).** There was a 28% decrease in piperacillin–tazobactam (41.47 to 29.85), 19% decrease in meropenem (28.08 to 22.61), and 7% decrease in vancomycin (125.09 to 116.17) use. Cefazidime was unchanged (18.13 to 18.08). Cefepime increased by 9% (56.78 to 61.97).

**Conclusion.** Relieving IDFs of evening and weekend ASP coverage during busy inpatient consult rotations may help decrease burnout. The assumption of these hours by dedicated members of ASP led to an increase in documented total and weekend antibiotic use. In addition, the change was associated with a relative decrease in piperacillin–tazobactam, meropenem, and vancomycin use.

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1093. Evaluation of an Antimicrobial Stewardship Elective Rotation for Medicine Residents
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**Session:** 134. Antibiotic Stewardship: Stewardship Education
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**Background.** In 2017, an Antibiotic Stewardship (ASP) elective was established for the medicine residents to engage directly in stewardship practice, learn how to
communicate recommendations effectively to their peers, and gain further understanding of the rationale for antimicrobial stewardship. Recommendations are co-formulated with the ID Pharmacist and ID Attending Physician, and documented as an ASP Note in the electronic health record. Additionally, the residents disseminate recommendations via page and verbal communication to their peers. The purpose of this study was to evaluate the effectiveness and response of the primary care teams to guidance formulated and communicated by the residents while on this clinical elective.

Methods. Recommendations by the medicine residents participating on the ASP elective from January 2018 to July 2018 were reviewed. Response to the recommendations were categorized as accepted, not accepted, or partially accepted with alternative change. Recommendations were considered as accepted if changes were made by the primary team within 24 hours from time of the ASP note. Responses were further reviewed based on the following medical services: medicine (including hematology/oncology), surgery, and intensive care (ICU).

Results. A total of 124 recommendations were reviewed for response. 11 of the patients were excluded as changes either occurred prior to the documentation of the ASP note, or proposed changes did not pertain to antibiotic management. Ninety-four of the included recommendations were accepted. Medicine, surgery, and ICU services accepted 84%, 82.4%, and 83.3% of recommendations, respectively. The services did not accept 5%, 11.8%, and 11.1% of recommendations, and full partial acceptance with alternative changes was 11%, 5.6%, and 5.6%, respectively.

Conclusion. Recommendations formulated and communicated by residents participating in the ASP Elective rotation resulted in a high degree of acceptance. The acceptance rates did not differ significantly between the medical services. The addition of the ASP Elective has demonstrated a benefit to the ASP program at Olive View–UCLA Medical Center, and other medical residency training programs should consider implementation of such an elective rotation to enhance stewardship efforts and medical resident education.

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1094. Safety of Administering Cefazolin vs. Other Antibiotics in Penicillin Allergic Patients with Anaphylaxis for Surgical Prophylaxis

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Background. Approximately 10% of patients report a history of penicillin allergy. Recent literature suggests cross-reactivity between cephalosporins and penicillins are due to side-chain similarities. Since cefazolin has a unique side-chain from other β-lactams, it can be safely administered in penicillin-allergic patients for surgical prophylaxis. Since October 2018, our hospital updated all surgical prophylaxis preprinted orders to use cefazolin in penicillin-allergic patients, except in those with histories of cefazolin-specific allergy or delayed skin reactions (e.g., Stevens-Johnson syndrome). This study aims to retrospectively determine outcomes and safety of cefazolin as compared with other antibiotics for surgical prophylaxis in penicillin-allergic patients with histories of anaphylaxis prior to implementation of cefazolin preprinted orders.

Methods. All patients with reported anaphylactic reactions to penicillins prescribed surgical prophylaxis between September 9, 2017 to October 9, 2018 were included. Patients were stratified based on antibiotic received (i.e., cefazolin, clindamycin, vancomycin, other antibiotic) and a retrospective chart review was performed to assess for outcomes and safety.

Results. One-thousand-seventy-three prescriptions for prophylactic antibiotics were identified. Of these, 95% met inclusion with histories of anaphylaxis to penicillins: 72 (32%) cefazolin, 70 (31%) clindamycin, 34 (15%) vancomycin, and 47 (21%) other antibiotics. General and orthotrauma surgeries used the most cefazolin in penicillin-allergic patients, while gynecology clindamycin and thoracoscopy vancomycin. Amongst those receiving cefazolin, no critical incidents of allergic reactions were reported and the rates of adverse events, such as pruritus, hives and rash, did not differ between any antibiotic group.

Conclusion. Cefazolin appears to be a safe option for surgical prophylaxis in patients with history of penicillin anaphylaxis. No differences in incidences of allergic reactions, complications or surgical delays were reported, as compared with alternative antibiotics. Further larger studies are needed to confirm our findings and determine rates of adverse events associated with the various antibiotic regimens.

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1095. Prevalence and Characteristics of Self-Reported Antibiotic Allergies Across a Multi-Hospital Healthcare System

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Session: 135. Antibiotic stewardship: Surgical Prophylaxis
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Background. Collaborations between medication safety and antimicrobial stewardship programs (ASP) have not been well described despite many overlapping best practice initiatives. In partnership with medication safety, the ASP at Houston Methodist (HM) reviews patient safety events submitted by hospital staff and identified a best practice opportunity in allergy reporting practices. Our objective was to benchmark self-reported antibiotic allergies among hospitalized patients and compare the prevalence and characteristics among hospital settings.

Methods. We evaluated the prevalence of self-reported antibiotic allergies in the electronic medical record for adult patients admitted to any HM entity including 1 flagship referral center (933-beds) and 6 community-based hospitals (1,379-beds) in January 2019. Antibiotics were grouped by class into penicillins, sulfas, cephalosporins, tetracyclines, macrolides, quinolones, and others. Point-prevalence rates were calculated using the total patient count as the denominator.

Results. There were 4,730 patients admitted to HM in January 2019 of which 85% (n = 4,029) self-reported 9,186 active drug allergies. There were 2,353 (49.7%) individuals who self-reported 3,665 antibiotic allergies, of which 987 (21%) reported an allergy to ≥2 antibiotic classes. The prevalence rate for a penicillin allergy was highest at 26.1% (n = 1,235), followed by allergy to sulfas 15.9% (n = 751) and quinolones 7.9% (n = 411). Antibiotic allergies were most prevalent in patients aged 70–79 (11%, n = 518) and 60–69 (10%, n = 495). Antibiotic allergies were higher among females (61.6%; n = 1,679,2,724) compared with males (40.7%; n = 662,1,905) (P = 0.003). There was no difference in prevalence rates between community-based hospitals and the flagship institution (P = 0.51).

Conclusion. We identified an antibiotic allergy point prevalence rate of 49.7% among hospitalized patients, including a 26.1% rate to penicillin, across our 7-hospital system. This analysis provides a road map to deploy system-wide efforts to improve antibiotic detailing in patients regardless of the hospital setting.

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1096. Reducing Unnecessary Postoperative Antibiotic Prophylaxis

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Background. National guidelines for the prevention of surgical site infections (SSI) recommend against antibiotic prophylaxis following wound closure for clean and clean-contaminated surgical procedures. Prolonged antibiotic prophylaxis can lead to antibiotic resistance and adverse drug events without reducing SSI rates. The objective was to reduce the rate of antibiotic prophylaxis following surgical incision closure for specified procedures in the Division of Neurosurgery (NRS), Otolaryngology (OTO), and General Surgery (GS) at Children's Hospital of Philadelphia (CHOP).

Methods. We identified all NRS, OTO, and GS procedures conducted at CHOP from July 1, 2016 to June 20, 2017. Collaborative meetings between surgical quality improvement team leads and the antimicrobial stewardship program (ASP) were convened to identify procedures most suitable for the intervention, including Chiari decompressions and tethered cord repair (NRS); tympanoplasty and tracheostomy (OTO); and laparoscopic and thoracoscopic procedures (GS). The intervention, started in March 2018, included (1) education of surgeons on perioperative prescribing guidelines, (2) order set modification, and (3) individualized monthly audit with feedback reports of inappropriate postoperative prescribing (via email copying all surgeons within the division). We monitored rates utilizing SPC charts of postoperative antibiotic use pre- and post-intervention (defined as administration of antibiotics within 24 hours of procedure end) and evaluated SSI rates pre and post-intervention with a Poisson regression.

Results. Following the intervention, postoperative antibiotic use reached special case resulting in a mean decline for laparoscopy (19.6% to 11.7%), thoracoscopy (35.6% to 17.9%), tympanoplasty (90.5% to 11.4%), and Chiari decompression (97% to 45.9%). There was no mean shift in postoperative antibiotic use for tracheostomy (25.5%), and Chiari decompression (97% to 45.9%). There was no mean shift in postoperative antibiotic use for tracheostomy (25.5%). 30-day SSI rates did not change pre- and post-intervention (P = 0.36).

Conclusion. A quality improvement initiative conducted to implement national guidelines recommending against postoperative antibiotic prophylaxis showed a significant reduction in postoperative antibiotic prophylaxis without a concomitant rise in SSI rates.