providers only send urine cultures from patients after clinical failure. This result in overestimation of resistance.

**Methods.** For 2 months, PC clinicians were instructed to alter practice by sending a UA with reflex to culture for all patients suspected of having UTI. A retrospective chart review collected antibiotic prescriptions, UA and culture results. We generated a combination UTI-specific antibiogram (CUSA) based on data from all urine cultures sent from this clinic. Using the CUSA we developed an empirical UTI treatment algorithm and evaluated prescribing trends before and after its implementation.

**Results.** The CUSA as compared with the E. coli urinary antibiogram for the PC clinic is shown in Table 1. Distribution of organisms is represented by Figure 1. Based on the CUSA, a treatment algorithm was developed that included preference for nitrofurantoin and TMP/SMX for patients with cystitis, and allowed for use of TMP/SMX even in pyelonephritis cases without risk factors for resistance. Cephalosporins were advised over fluoroquinolones. Of 304 patients in whom urine cultures were sent pre-implementation, 178 empirical antibiotic prescriptions were written, while 126 were written for 388 patients after implementation. Nitrofurantoin prescriptions increased (47% to 55%), TMP/SMX (19%) and cephalosporin use (4%) remained the same, and fluoroquinolone prescribing decreased (28% to 20%).

**Conclusion.** We used a CUSA to develop a treatment guideline more reflective of our causative pathogens and institutional resistance patterns. We saw a shift in usage from antibiotics with more to antibiotics with less collateral damage.

**Table 1: E. coli Urine Antibiogram vs. CUSA**

| PC Urine E. coli Antibiogram | Amox/Clav | Cephalaxin | Cefpodoxime | Cipro | TMP/SMX | Nitrofurantoin |
|-----------------------------|-----------|------------|-------------|------|---------|---------------|
| CUSA (157)                  | 69        | 78         | 96          | 97   | 83      | 86            |

**Figure 1.**

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

1853. Impact of Antimicrobial Stewardship Interventions on Antimicrobial Utilization in Asymptomatic Bacteriuria

Punit Shah, PharmD, BCPP; Chiamaka Ike, PharmD, BCCCP, BCPP; Meghan Thibeaux, PharmD, BCPP; Emilyn Rodriguez, MSN, RN, CMSRN; Sherrel Maddox, MSN, RN, RN-BC and Nicolas Daoura, Maryland; Houston Methodist Sugar Land Hospital, Sugar Land, Texas

**Session:** 221. Antimicrobial Stewardship: Outpatient Settings
**Saturday, October 6, 2018: 12:30 PM**

**Background.** Antimicrobial therapy for asymptomatic bacteriuria (ASB) is often unnecessary and is a common reason for inappropriate antimicrobial use in hospitalized patients. ASB treatment leads to development of resistance, drug toxicities and increased risk of *Clostridium difficile* infections. We evaluated a multi-faceted interdisciplinary antimicrobial stewardship approach to reduce unnecessary antimicrobial utilization for ASB.

**Methods.** This was an IRB approved study evaluating the impact of antimicrobial stewardship on antibiotic utilization for ASB in a pilot medical-surgical unit. The pre-intervention phase was from August to October 2017 and the post-intervention phase was from December 2017 to March 2018. The intervention phase consisted of educational in-services to hospitalist groups, Infectious Diseases physicians, nurses, and pharmacists. An electronic real-time surveillance system was used to identify positive urine cultures. The clinical pharmacist for the pilot unit classified the patient as either ASB or urinary tract infection, and made stewardship interventions to stop unnecessary antimicrobial utilization for ASB.

**Results.** There were 65 and 77 patients with bacteriuria in the pre- and post-intervention phases. Among these, ASB was present in 29 (45%) and 27 (35%) patients, respectively. After excluding those receiving antibiotics for concurrent non-urinary indications, education alone decreased ASB treatment from 18 (62%) to 12 (44%) patients in the pre- and post-intervention phases respectively [RR: 0.72, 95% CI 0.42–1.17, *P* = 0.19]. Pharmacist interventions in combination with education further decreased unnecessary ASB treatment from 18 (62%) to 6 (22%) patients [RR 0.36, 95% CI 0.16–0.72, *P* = 0.003].

**Conclusion.** Education to healthcare professionals alone did not significantly decrease unnecessary ASB treatment. However, in combination with real-time pharmacist interventions there was a significant decrease in antimicrobial therapy for ASB. With increasing antimicrobial resistance, healthcare institutions should evaluate the role of interdisciplinary antimicrobial stewardship interventions to reduce unnecessary antimicrobial utilization for ASB.

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

1854. Effective Antimicrobial Stewardship for Outpatient Parenteral Antimicrobial Therapy (OPAT): Nationwide Experience in Infectious Disease Physician Infusion Centers

Ramesh V. Nathan, MD, FIDSA; Richaud L. Hengel, MD; Andrew H. Krinsky, MD; Thomas K. Stevens, MD, Alfred E. Bacon, MD, K. Dale Hooker, PharmD; Claudia P. Schroeder, PharmD, PhD; Kimberly A. Couch, PharmD, MA, FIDSA; FASHIP and Lucinda J. Van Anglen, PharmD; Mazur, Statner, Dutta, Nathan, PC, Thousand Oaks, California; Atlanta ID Group, Atlanta, Georgia; Infectious Diseases Associates, Sarasota, Florida; ID Specialists of Indiana, Highland, Indiana; Infectious Disease Associates, PA, Newark, Delaware; 4Haxis Infusion Therapy, Sugar Land, Texas

**Session:** 221. Antimicrobial Stewardship: Outpatient Settings
**Saturday, October 6, 2018: 12:30 PM**

**Background.** Antimicrobial stewardship (AS) is an important factor in combating antimicrobial resistance and optimizing clinical outcomes, especially in the outpatient setting. With no AS guidelines in the United States for OPAT, we developed an antimicrobial stewardship program (ASP) for OPAT in 2016, which was piloted and applied to Infectious Disease practices and infusion centers. The program was expanded and assessed nationally in additional centers in 2017, adding appropriate- ness of empiric therapy (tx), supervision of first doses of antimicrobials, compliance with tx regimen, appropriate tx changes and staff education.

**Methods.** An assessment instrument was developed through literature review, expert opinion and validated with a logistic model. Patients receiving OPAT in 2017 were randomly selected and retrospectively reviewed based on annual patient volume from 14 OPAT practices. The table shows the ASP assessment tool consisting of 7 Core Elements (CE) scored at 10 points each and 6 Other Elements (OE) scored at 5 points each. Logistic regression was used to validate the relationship between the composite outcome elements and all other elements (aOR = 0.929, *P* = 0.0005, c = 0.704).

**Results.** Each patient OPAT course was assessed and scored for compliance to required elements with an achievable score per patient of 100 points (100%). IV to PO conversion was evaluated secondarily. Descriptive statistics were used.

**Discussion.** A total of 200 OPAT courses were scored for compliance to each ASP element as noted in the table. The overall compliance rate for CE and OE was 93.0% and 93.3%, respectively. All CEs were ≥90% compliant, except for duration of tx. This exceeded guidelines in 15% of patient courses due to severe disease presentation. For the OEs, all achieved ≥90% compliance except laboratories performed as ordered. Early conversion from IV to PO resulted in a reduction of 240 IV days for 1.2 days per patient.

**Conclusion.** We successfully developed an OPAT ASP with national expansion. Opportunities were identified for improvement in laboratory processes and enhanced evaluation regarding tx durations. This validated ASP offers a valuable tool for OPAT, incorporating key elements for stewardship success.