the LaLGP and SOC cohorts, respectively (p=0.153). The average total healthcare-related cost of care was USD \$295,589 in the LaLGP cohort compared to \$326,089 in the SOC cohort (p=0.282). LaLGPs were associated with a mean savings of \$30,500 - \$55,831 per patient (cumulative cost savings of \$701,510). There was no difference in clinical failure between the two cohorts (22% vs. 30%; p=0.491). Nearly 26% of patients in the SOC cohort left AMA compared to 0% in the LaLGP cohort (p=0.022).

**Conclusion.** Receipt of LaLGPs may be a beneficial treatment option for patients with socioeconomic factors and deep-seated infections who are not candidates for oral transition or OPAT.

Disclosures. Julie Ann Justo, PharmD, MS, BCPS-AQ ID, bioMerieux (Speaker's Bureau)Merck & Co. (Advisor or Review Panel member)Therapeutic Research Center (Speaker's Bureau)Vaxart (Shareholder) P. Brandon Bookstaver, Pharm D, ALK Abello, Inc. (Grant/Research Support, Advisor or Review Panel member)Biomerieux (Speaker's Bureau)Kedrion Biopharma (Grant/Research Support, Advisor or Review Panel member)

## 45. Significantly Decreased Broad Spectrum Antimicrobial Use (Carbapenems And Fluoroquinolones) with Implementation of Antibiotic Stewardship Program (ASP) and Pharmacist Interventions

Ashlesha Kaushik, MD<sup>1</sup>; Sandeep Gupta, MD<sup>2</sup>; Corey Thieman, PharmD<sup>3</sup>; Michael Padomek, PharmD<sup>3</sup>; <sup>1</sup>UnityPoint Health and University of Iowa Carver College of Medicine, Sioux City, Iowa; <sup>2</sup>Pulmonary and Critical Care Medicine, Unity Point Health, Sioux City, Iowa; <sup>3</sup>Unity Point Health at St. Luke's Regional Medical Center, Sioux City, Iowa

Session: P-04. Antimicrobial Stewardship: Outcomes Assessment (clinical and economic)

**Background.** According to the WHO, carbapenems and fluoroquinolones (FQ) should be key targets for stewardship programs.

Methods. A multifaceted antimicrobial stewardship program (ASP) was implemented in July 2018 at a 160-bed tertiary care center serving the tristate area of lowa, South Dakota and Nebraska. Carbapenem and FQ use during pre-ASP intervention period (P1: 12/01/2016-6/30/2018) was compared with ASP-intervention period (P2: 07/01/2018-1/31/2020). ASP interventions included: stewardship educational pearls in monthly physician newsletters; educational posters in provider areas; suppression of carbapenem results on microbiology susceptibility reports; provider counseling for appropriate ordering; creating carbapenem alternative alert in order-entry software; removing FQ and carbapenems from order-sets where appropriate; default antibiotic stop dates changed to 7 days in EMR (Epic); adverse effects warning fired as an alert when ordering FQ. Pharmacist interventions: procalcitonin protocol allowing pharmacists to reorder follow-up procalcitonin and make recommendations to discontinue therapy where appropriate.

**Results.** FQ use declined significantly from a mean of 133 days of therapy (DOT) per 1000 days to 46 DOT per 1000 patient days during P2 (p< 0.001). Carbapenem use declined significantly from a mean of 65 DOT per 1000 patient days during P1 to 9 DOT per 1000 patient days in P2 (p< 0.001). All hospital units showed a significant decrease in use, with intensive care units (ICUs) noting 56% reduction (p< 0.0001) during P2 compared to P1. During P2, 55% of orders for carbapenems and FQ during P2 were found to be appropriate compared to 39% in P1 (p< 0.001). Sensitivity profile for *Pseudomonas aeruginosa* improved from 86% carbapenem sensitivity during P1 to 89% in P2 and no *Carbapenem-Resistant Enterobacteriaceae* isolates were identified during the study period; FQ sensitivity remained stable at 81%. Cost savings of \$757 per 1000 patient days were recognized in P2 as a result of reduced use.

**Conclusion.** With ASP and pharmacist interventions, a significant decline in total utilization of carbapenem and FQ, considerable cost savings and an increase in proportion of appropriate use were observed.

Disclosures. All Authors: No reported disclosures

## 46. Templated Microbiology Comments with Candiduria to Enhance Antimicrobial Stewardship

Weston Schartz, MA, PharmD<sup>1</sup>; Nick Bennett, PharmD<sup>1</sup>; Laura Aragon, PharmD<sup>1</sup>; Kevin Kennedy, MS<sup>1</sup>; Sarah E. Boyd, MD<sup>1</sup>; Matthew Humphrey, n/a<sup>1</sup>; Cindy Essmyer, MD<sup>1</sup>; <sup>1</sup>Saint Luke's Health System, Blue springs, Missouri

Session: P-04. Antimicrobial Stewardship: Outcomes Assessment (clinical and economic)

**Background.** Behavioral interventions have been shown to improve antimicrobial selection. Such practices are low cost and effective means of stewardship promotion. One area of overtreatment that contributes to unnecessary antifungal use is in hospitalized patients with candiduria. We implemented a templated microbiology comment to guide prescribing of antifungals for hospitalized patients with candiduria.

**Methods.** This was a quasi-experimental, multi-center, single health system study. When *Candida* is isolated, the following comment appears in the microbiology result section along with the urine culture result: "In the absence of symptoms, *Candida* is generally considered normal flora. No therapy indicated unless high risk (pregnant, neonate or neutropenic) or undergoing urologic procedure. If Foley catheter present, remove or replace when able." We compared a pre-implementation cohort (June 2018-Janurary 2019) to a post-implementation cohort (June 2019-Janurary 2020). Patients were included in the study if they were inpatients, 18 years and older, with candiduria. The primary outcome was the rate of antifungal administration within 72

hours after culture results became available. Secondary outcomes include duration of therapy and rate of antifungal given within 73-240 hours after culture result.

**Results.** The study included a total of 297 patients between the two groups (156 pre-implementation, 141 post-implementation). The primary outcome was found to be significantly lower in the post-implementation group (48.1% vs 34.0%, p=0.014). A multivariate adjustment for baseline characteristics that were significantly different between groups revealed that post-implementation group maintained its effect (OR 0.49 (0.29, 0.82), p=0.0067). For secondary outcomes, no difference was found in patients requiring antifungal administration within 73-240 hours after microbiology results were available (1.3% vs 3.5%, p=0.199). There was no difference in mean anti-fungal duration (4 vs 3 days, p=0.449).

## **Primary and Secondary Outcomes**

Outcome	Pre-Implementation	Post-Implementation	P-value
	n = 156	n = 141	
Antifungal	75 (48.1%)	48 (34.0%)	0.014
Administered within			
72 Hours of Candida			
Result			
Antifungal	2 (1.3%)	5 (3.5%)	0.199
Administered within			
73-240 Hours of			
Candida Result			
Antifungal Duration	4.0	3.0	0.449
(days)			

**Conclusion.** Adding a templated comment to urine cultures was associated with a significant reduction in the number of antifungals prescribed in patients with candiduria. This strategy is an effective low-cost, passive education technique to improve antimicrobial stewardship.

Disclosures. All Authors: No reported disclosures

## 47. Transitioning to Batch Dosing of High-Cost Antimicrobials in the Inpatient Setting

Matthew Lokant, MD<sup>1</sup>; Shu Xian Lee, MD<sup>1</sup>; Connor Nevin, BS<sup>1</sup>; John D. Lindsay, IV, n/a<sup>2</sup>; Colby Acri, PharmD Candidate<sup>2</sup>; Miles Graves, MD<sup>1</sup>;

Katherine L. Bergman, MD<sup>1</sup>; John Guilfoose, MD<sup>1</sup>; Catessa Howard, Pharm.D.<sup>2</sup>; <sup>1</sup>West Virginia University, Morgantown, West Virginia; <sup>2</sup>WVU Medicine, Morgantown, West Virginia

Session: P-04. Antimicrobial Stewardship: Outcomes Assessment (clinical and economic)

**Background.** Antimicrobial stewardship (AMS) committees ensure appropriate antimicrobial utilization. One stewardship intervention is to evaluate the delivery model of high-cost antimicrobials to better utilize resources and mitigate expenses. We analyzed the total medication waste and costs of high-cost antimicrobials, specifically daptomycin, ertapenem, amphotericin, and micafungin, at our institution and propose innovative cost-savings changes at a systems level.

*Methods.* This retrospective study consisted of 263 patients. All patients were at least 18 years old who was admitted to our academic institution from January 2020 to April 2021 and received daptomycin, ertapenem, amphotericin, or micafungin. Demographics, daily medication dosage, total doses received, the date and time of the start of the medication, last administered dose, and discontinued order were recorded.

**Results.** The daptomycin cohort consisted of 143 patients with 46.2% females and average age of 56.3 years. In this group, 145.3 vials were wasted which equated to a loss of \$22,630. The ertapenem group had 53 patients with 62.3% females and a mean age of 62.3 years. There were 24 vials wasted with a calculated loss of \$1080. The amphoterion cohort had 32 patients with an average age of 52.2 years and 43.8% females. There were 189 vials wasted with a loss of \$46,116. The micafungin group had 35 patients with 42.9% females and average age of 60.4 years. This group had 12 vials wasted with a loss of \$2052.

**Conclusion.** Each antimicrobial has a specific formulation protocol. Daptomycin and ertapenem formulation occurs in the early morning. Amphotericin formulation occurs 2 hours prior to medication use. Micafungin formulation occurs at the time the order label prints. These medications were more often administered in the late morning to early afternoon timeframe. The order to discontinue the medications also occurred at the same interval. One reason could be due to decisions made on morning rounds from primary teams and specialty input. These orders would then be placed after rounds. A cost-saving method would be to batch and change the formulation time for all antimicrobials to later in the afternoon, which would not only prevent waste, but also allow the AMS team to effectively audit appropriate antimicrobial use.

Disclosures. All Authors: No reported disclosures