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Background. Isavuconazole (ISA) is a once-daily, extended-spectrum triazole approved for treatment of invasive aspergillosis and mucormycosis. The pharmacokinetic profile, daily dosing, lack of therapeutic drug monitoring (TDM) and reduced cost make ISA a promising option for use as prophylaxis for invasive fungal infections (IFIs). We report our experience with use of ISA for prophylaxis of IFI in high-risk hematologic malignancy patients.

Methods. In August 2016, ISA replaced posaconazole (POS) for IFI prophylaxis at our 576-bed academic medical center in order to contain drug costs. ISA prophylaxis was restricted to patients with the following high-risk criteria: refractory or relapsed acute myeloid leukemia, myelodysplastic syndrome or graft-vs.-host disease receiving high-dose steroids. We electronically identified all drug orders for ISA prophylaxis between August 2016 and March 2017; patient and encounter identifiers and start and stop dates were electronically extracted. Additional clinical data was collected via chart review. ISA costs were calculated using ISA days of therapy (DOT) and current ISA acquisition costs; POS costs were extrapolated from ISA DOT and calculated using current POS acquisition costs. Data were summarized using descriptive statistics; drug costs were compared using paired t-tests.

Results. 113 patients received ISA for a total of 2610 patient-days of therapy. Mean age was 53 years; 22 (12.9%) patients were admitted to the intensive care unit during therapy. Intravenous ISA accounted for 731 DOT, and oral ISA for 1679 DOT. TDM was performed 10 times and the median ISA level was 5.3 µg/mL (IQR 2.9 – 7.2). The switch resulted in a mean cost savings of \$119.11 per DOT compared with extrapolated POS costs ($P < 0.01$). Upon discharge, insurance denied coverage of ISA prophylaxis in 14% of patients, and 11% of patients received an alternative antifungal prophylaxis agent. Grade 2 liver injury possibly related to ISA occurred in 9% of patients.

Conclusion. At our institution, utilizing ISA for IFI prophylaxis resulted in cost savings relative to POS. Lack of insurance coverage for ISA at discharge remains a major challenge. Further study should assess infectious outcomes with ISA prophylaxis.

Disclosures. J. S. Lewis II, Merck & Co.: Consultant, Consulting fee.

1569. Transition of Care with Dalbavancin: a Successful Cost-Saving Stewardship Program through Decreased Length of Stay

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Background. A key part of our antimicrobial stewardship program (ASP) includes interdisciplinary collaboration to develop a transition of care plan for patients needing long-term antibiotics. Many of our challenging clinical scenarios involve inpatients, who do not qualify for intravenous antibiotics administered via home health agencies or skilled nursing facilities, with complicated skin and soft tissue structure (cSSTI), joint and bone infections. Their cost-of-care, driven mainly by prolonged length of stay (LOS), is high. For infections involving gram-positive bacteria treatment with dalbavancin, while an expensive antibiotic, posed a viable option for transitioning select patients for early discharge.

Methods. Retrospective review of cases was conducted for all patients administered dalbavancin at Deaconess Hospital from Dec 2015 to Jan 2017. Prior to drug administration patient cases required approval by ASP for appropriateness of treatment plan. Data collected included diagnosis/site of infection, organism, current IVDU, treatment plan (and if completed), inpatient and estimated total LOS, dalbavancin dosing regimen, and cost (drug and LOS). Overall cost savings was calculated by LOS savings (\$1,000/day) minus cost of dalbavancin (\$1,400/500mg vial).

Results. 17 patients (13 IVDUs) were administered dalbavancin: 8 for cSSTI, 8 for osteo/joint infections and 1 for bacteremia. 7 of 8 patients with cSSTI received either 1 or 1.5 gm of dalbavancin once; and 1 patient returned for weekly dosing to complete therapy. 3 of 8 patients with osteo/joint infections received a one-time dose to complete treatment; 4 returned for weekly dosing; and 1 patient was lost-to-follow-up. Only one patient, overall, was readmitted. Treatment was well tolerated and no complications were noted. Mean actual LOS (range) for patients with cSSTI was 11 (3–32) days; and with osteo/joint was 23 (13–36) days. Cost of dalbavancin was \$68,600. Total LOS was decreased by 270 days. Overall savings were over \$200,000.

Conclusion. Findings were presented to pharmacy and hospital leadership as an example of a safe, effective, cost-saving ASP outcome. For every dollar spent on dalbavancin our hospital saved three dollars on cost-of-care related to decreased length of stay.

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1570. Impact of a Standardized Penicillin Allergy Assessment Program to Optimize Penicillin Allergy Documentation and B-lactam Antibiotic Use at an Academic Medical Center

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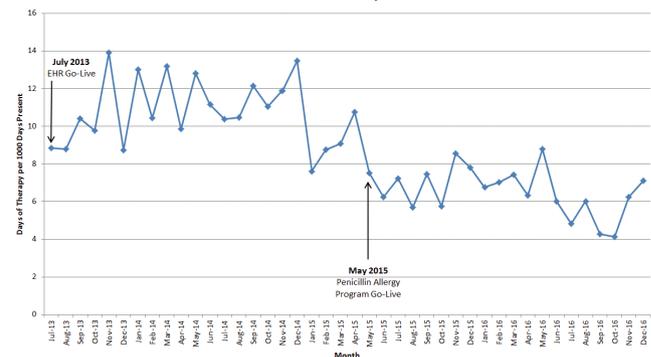
Background. The 2016 IDSA Guidelines for Implementing an Antibiotic Stewardship Program recommend that Antibiotic Stewardship Programs (ASPs) implement allergy assessments for patients with a documented penicillin allergy. The impact of completing these allergy assessments on allergy documentation and antibiotic prescribing is not well characterized.

Methods. We performed a retrospective quasi-experimental study to evaluate the impact of the implementation of a standardized penicillin allergy assessment program by the Duke Antimicrobial Stewardship and Evaluation Team (ASET). Starting in May 2015, pharmacy technicians performed detailed assessments of admitted patients with a documented penicillin allergy; assessments were reviewed by clinical pharmacists. The pre-intervention period included randomly-selected adult patients with a reported penicillin allergy admitted from May 2014 to April 2015. The primary study outcome was accurate characterization of penicillin allergy within the electronic health record (EHR), including clarification of allergic reaction and removal of allergy. Secondary outcomes included B-lactam use within 90 days of hospitalization, time to complete the assessments, and hospital-wide aztreonam use, measured as days of therapy (DOT) per 1000 days present.

Results. A total of 200 patients were included; 100 patients during the intervention period, and 100 during the pre-intervention period. The proportion of patients who had their allergy information updated increased from 31% to 62% following implementation of the program ($P < 0.0001$); inappropriate allergy documentation was removed in 7 (7%) patients. The program did not change the percentage of study patients who received a B-lactam (24% vs. 26%; $P = 0.74$). Hospital-wide aztreonam use was lower in the intervention group (10.8 vs. 7.0 DOT/1,000 days present; $P < 0.0001$). The average time to perform each assessment was 15 minutes.

Conclusion. Implementation of a standardized penicillin allergy assessment program led to a significant impact on allergy documentation within the EHR without burdening pharmacy staff. While the rate of B-lactam therapy was unchanged, we observed a significant decrease in aztreonam utilization after program implementation.

DUH Aztreonam Utilization July 2013 - Dec 2016



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1571. Use of Penicillin Skin Testing as an Antimicrobial Stewardship Initiative: Clinical and Economic Evaluation at a Community Health System

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Background. Commonly reported penicillin allergies result in limited treatment options, increased healthcare costs, and increasing resistance with the use of broad-spectrum agents. By providing penicillin skin testing (PST) to patients with a penicillin allergy, there is potential to reduce the use of carbapenems, aztreonam, vancomycin, and other broad-spectrum agents, resulting in cost savings and unnecessary overuse. This study examined clinical and economic outcomes of antimicrobials prescribed before and after PST.

Methods. This nonrandomized, observational chart review examined adult patients admitted over an open enrollment period of 100 patients who completed PST for a self-reported penicillin allergy. The study included all patients who met inclusion