Penicillin allergies are the most commonly reported drug allergies and are documented in up to 17% of patients. Incomplete reaction histories and exaggerated concerns regarding the risk of cross-reactivity often lead to unnecessary avoidance of β-lactams in patients with reported allergies. Utilization of alternative non-β-lactam therapy in patients with reported allergies has been associated with increased incidence of multidrug-resistant organisms, including *C. difficile* infection. Per the Infectious Diseases Society of America guidelines for implementing an antibiotic stewardship program (ASP), ASPs should promote allergy assessments and penicillin skin testing in patients with a history of a β-lactam allergy. Implementation of penicillin skin testing in the acute care setting is often limited by resources, education, skill, and time required in administering and interpreting the result. Investigators sought to assess the impact of a β-lactam allergy assessment on aztreonam utilization within a healthcare system.

**Methods.** This was a multicenter, retrospective study comparing aztreonam utilization in five hospitals within a healthcare system after implementation of a β-lactam allergy assessment. The program included education as well as development of criteria for utilization and a β-lactam allergy assessment algorithm. A β-lactam allergy assessment was performed on any patient with an order for aztreonam. The Mann–Whitney U test was used to assess the impact of the restriction program on aztreonam utilization and expenditure.

**Results.** The hospital system experienced roughly a 50% decrease in aztreonam days of therapy per 1,000 patient-days ($P < 0.01$) and 67% reduction in annual expenditure ($P = 0.05$). Of the 204 patients with an order for aztreonam, 151 (74%) patients received at least one dose; however, 97 (48%) patients ultimately received and tolerated a β-lactam. Only 112 (55%) patients had a prior reported reaction with 68 (61%) of those having a history of a Type I reaction.

**Conclusion.** Implementation of a β-lactam allergy assessment for patients with reported allergies can enhance appropriate use of β-lactams and result in reduced aztreonam utilization and expenditure.

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

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**1792. Assessing Outcomes of Antimicrobial Stewardship Interventions Along With a Hospital-Wide β-Lactam Allergy Guideline Through Aztreonam Use: A 5-Year Observation**

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**1793. Description of a Pharmacist-Managed Penicillin Allergy Skin Testing (PAST) Service at a Community Teaching Hospital**

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**1794. Impact of a Pharmacist-Driven Detailed Penicillin Allergy Interview**

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ship (AMS). Β-lactam allergies (BLA) frequently restrict clinical decision-making.

Methods. A retrospective chart review was performed on inpatients >18 years old at our institution who received at least one dose of aztreonam during the 2017 calendar year. Data collected included: BLA, both prior and subsequent BL classes tolerated, number of doses and days of aztreonam administered. Patients were excluded from the analysis if they did not have a documented BLA or if they received aztreonam as target therapy at admission. Cost of aztreonam therapy was compared to a composite cost of alternative BL agents based on prior and subsequently tolerated classes of BLA. Comparator agents included: piperacillin/tazobactam (piperacillin), cefepime (cephalosporin) and meropenem (carbapenem). Wholesale acquisition costs were used for each agent and comparator regimens were based on our health system-wide dosing guidelines adjusted for renal function.

Results. One hundred thirty-two patients met inclusion criteria. Of those patients, 88/132 (66.7%) had demonstrated tolerance of a BL agent. Specifically 69/132 (52.3%) previously and 19/132 (14.4%) subsequently tolerated β-lactam. Across the study, $40,768.84 was spent on aztreonam for patients with prior/subsequent BL tolerance. Cost for alternative therapy was estimated at $13,143.25 total; with an estimated cost difference of $27,625.59. Estimated cost difference for prior tolerance was $7,857.67 and subsequent $5,767.87.

Conclusion. Aztreonam is an uncommon but costly antimicrobial. This study demonstrated that reduction in aztreonam utilization based on prior tolerance of BL agents could lead to a meaningful reduction in pharmaceutical expenditures and avoid the low-hanging fruit for antimicrobial stewardship programs.

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