

## IMPACT OF PHARMACY-LED EVALUATION OF EMPIRICAL ANTIBIOTIC PRESCRIBING IN ANTIBIOTIC ALLERGIC PATIENTS.

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Antibiotic allergy labels are prevalent in approximately 10-30% of hospitalized patients and details regarding the nature of the allergy are often left undocumented. Inaccurate or suboptimal allergy documentation may result in avoidance of first-line antimicrobial agents. Prescribing of alternative antibiotics may be less effective and associated with greater adverse side effects. Inappropriate antibiotic prescribing may increase healthcare costs, lengths of stay, antibiotic resistance, and secondary infections.

The intent of this study was to evaluate the impact of pharmacist led allergy clarification on frequency of alternative antibiotic prescribing. Patients were included if they were > 18 years of age, documented penicillin or cephalosporin allergy, and prescribed an alternative antibiotic: aztreonam, ertapenem, meropenem, levofloxacin, clindamycin, or vancomycin. Patients were excluded if antibiotics indicated for surgical prophylaxis, suspicion for extended-spectrum beta-lactamase or methicillin resistant *Staphylococcus aureus*, pregnant, breast feeding, or antibiotic initiated from outside facility. A retrospective chart review assessed the frequency of alternative antibiotic prescribing in documented penicillin or cephalosporin allergy patients to serve as the comparator group. Pharmacist education regarding allergy assessments and beta-lactam cross reactivity was conducted prior to implementation of a proactive pharmacist allergy assessment for 3 months. The primary outcome was frequency at which alternative antibiotics were changed to a cephalosporin or penicillin following an allergy history performed by the pharmacist. Secondary outcomes include incidence of adverse drug reactions, time to antibiotic change, and number of allergy profiles updated.

Conclusions from this study will be utilized to improve the allergy history documentation process and reduce alternative antibiotic use.

### **Learning Objective:**

- Describe the impact of pharmacist led allergy clarification on alternative antibiotic prescribing