



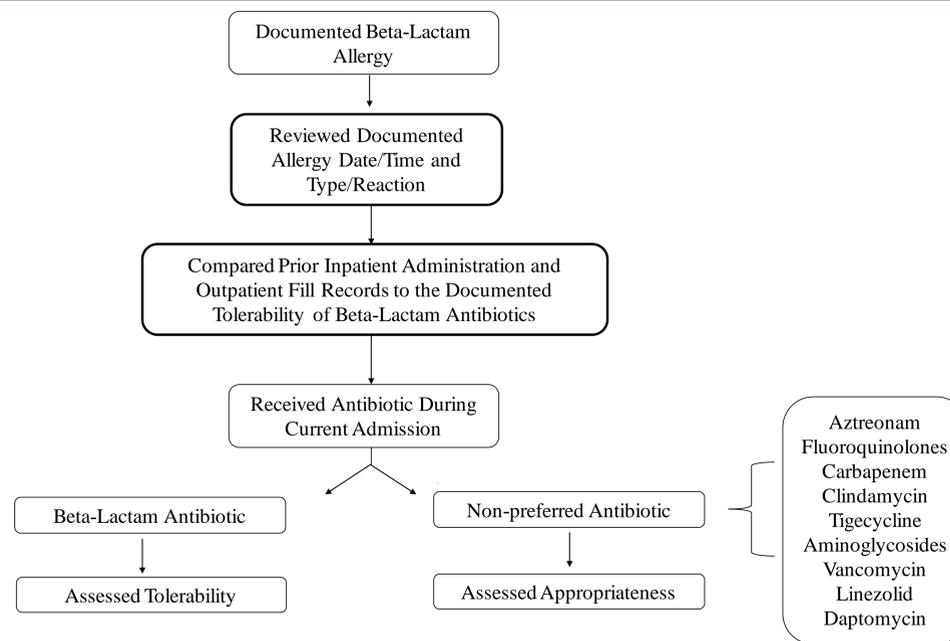
BACKGROUND

- Beta-lactam antibiotics are amongst the most safe and effective empiric antibiotics ^[1]
- Non-preferred antibiotic usage can increase the risk of side effects and may lead to antimicrobial resistance ^[1]
- In previous studies, Saint Luke's Health System (SLHS) alerted pharmacists whenever a non-preferred antibiotic was ordered in an attempt to minimize their usage
- Only 5% of beta-lactam allergies yield clinically significant IgE-mediated or T lymphocyte-mediated allergic reactions that cause anaphylaxis ^[1]
- Despite higher previous reports, only 2% of patients experience cross-reactivity between penicillin and cephalosporin drugs ^[1]
- Non-preferred antibiotics are defined as alternative antimicrobial agents that are associated with higher costs and adverse effects. Insufficient documentation leads to inappropriate use of non-preferred antibiotics

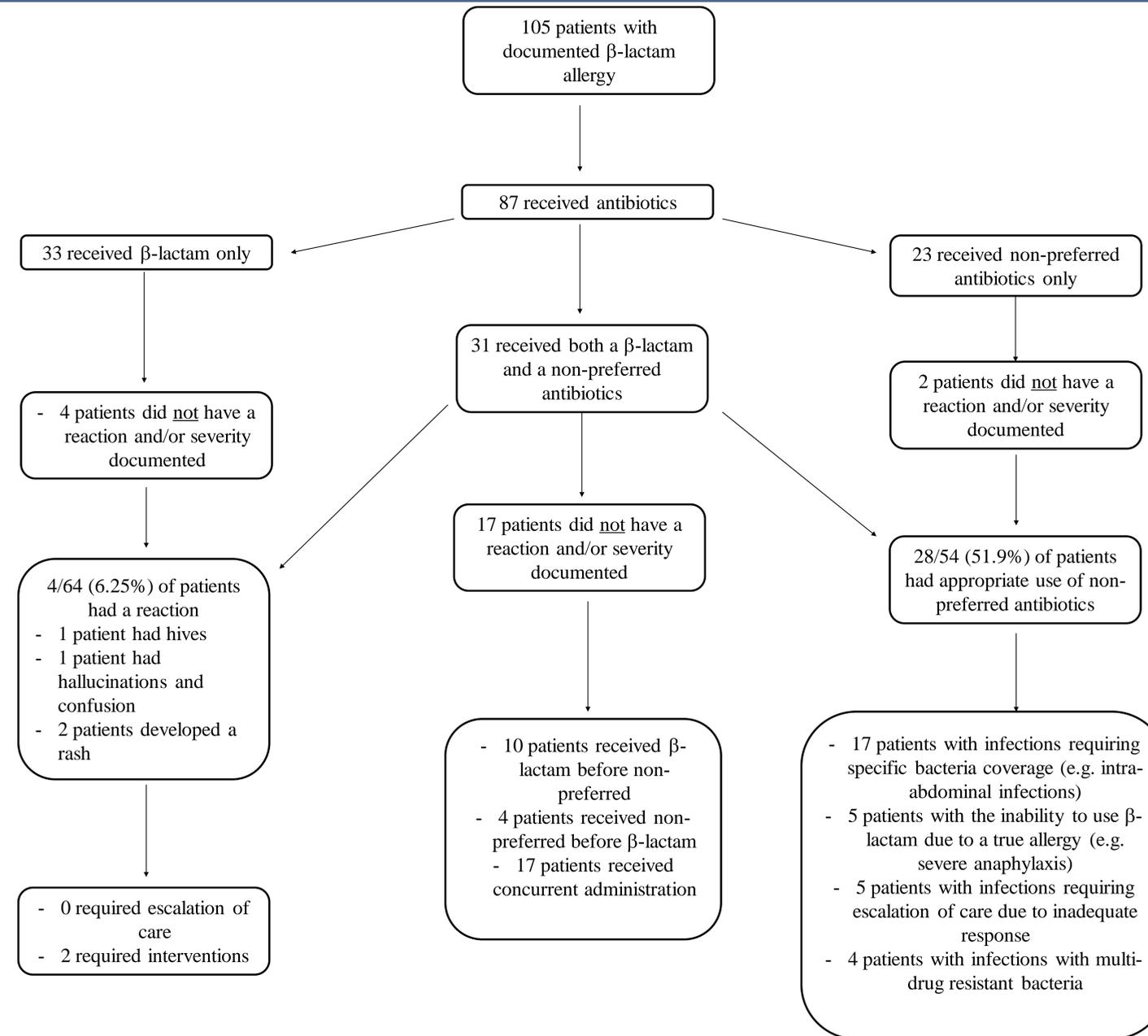
OBJECTIVE

- This study reviews the adequacy in allergy documentation in relationship to respective hospital units and assesses the impact of allergy documentation on antimicrobial selection

METHODS



RESULTS



DISCUSSION

- Documentation of allergies by nursing is a required step in the admission process as SLHS, however specifics of reactions, timing of reaction, and additional details can be omitted
- The previously developed inbox used by pharmacy to track the use of non-preferred antibiotics has been removed
- There were 18 units included in this study, prompting the decision to provide system wide education instead of targeted unit education
- The two patients that had reactions following exposure to a beta-lactam antibiotic received either triamcinolone for a rash or diphenhydramine plus famotidine prior to antibiotic administration, respectively
- Review of previous inpatient administration and outpatient fills records of beta-lactam antibiotics only included SLHS records and may have provided a limited view of patient's history
- Post-education data has yet to be evaluated for comparison to further improve practice

CONCLUSIONS

- 73.6% of patients had appropriate allergy documentation prior to receiving an antibiotic during their hospitalization
- 61% of patients with a documented beta-lactam allergy received a beta-lactam antibiotic during their current admission
- 6.25% of patients who had a documented beta-lactam allergy and received a beta-lactam antibiotic had a reaction that required minor interventions
- There were 48.1% of patients receiving inappropriate non-preferred antibiotics
- Direct nursing education was provided during November 2019, and the post-education data in a repeat study is being completed to evaluate improvements and trends

STUDY LIMITATIONS

- Single center, retrospective chart review
- Small sample size
- Short length of study

DISCLOSURES

- The authors have nothing to disclose concerning possible financial or personal relationships with commercial entities that may have a direct or indirect interest in the subject matter

REFERENCES

- Shenoy ES, Macy E, Rowe T, Blumenthal KG. Evaluation and Management of Penicillin Allergy. *Jama*. 2019;321(2):188. doi:10.1001/jama.2018.19283.