

4CPS-122 - OVERVIEW OF THE IMPACT OF PENICILLIN ALLERGY LABELS ON ANTIBIOTIC USE IN THE EMERGENCY DEPARTMENT

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Background and importance

Many patients claim to be **allergic to penicillin (Pen-A)**, however only 10-25% of these are truly penicillin allergic. It needs to be established if they are truly allergic (type-1 allergy) in order to indicate alternative antibiotics. Moreover, patients who do not have a type-1 allergy can safely receive cephalosporins or carbapenems, but having a label of Pen-A may be associated with prescription of **broad spectrum antibiotics (BSA)**, hospital stay duration and readmission.

Aim and objectives

- Assess the impact of Pen-A labels on antibiotic in **emergency department (ED)**
- Identify patients who remain appropriate candidates to receive beta-lactam therapy or cephalosporins, are mislabeled or may be dis-labeled with **Penicillin allergy skin testing (PST)**.

Material and methods

Retrospective-cohort study with ED cases treated with BSA from January 2020-2021.



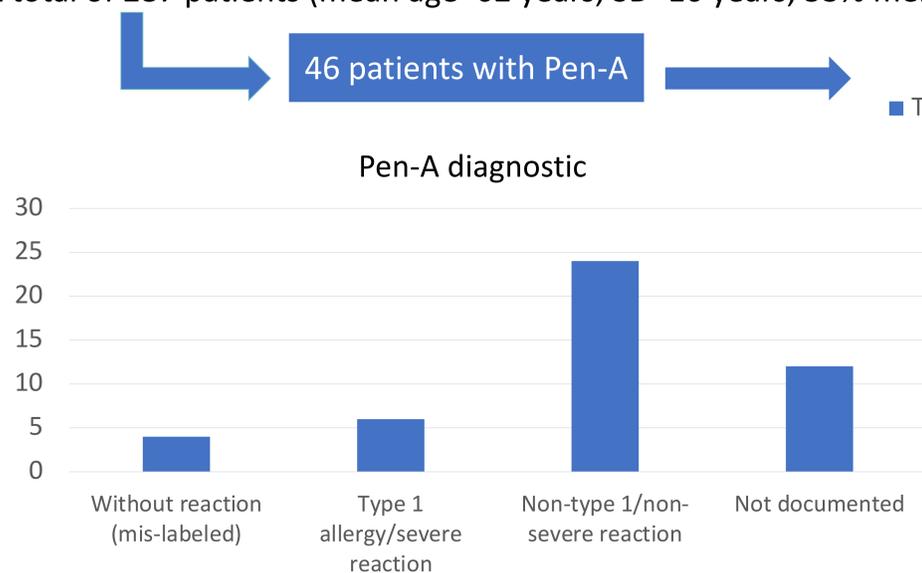
Pen-A were identified by assessing all allergies in the electronic medical record. Each patient with a Pen-A label was matched for: **age, gender, BSA prescribed** in ED and **previous exposures to penicillin or cephalosporins**.

PST may be considered if they meet any of the criteria recommended:

- History of Pen-A > 10 years ago
- Frequent antibiotic use required
- Immunosuppressed-state
- History of infections caused by multidrug-resistant (MDR) bacteria

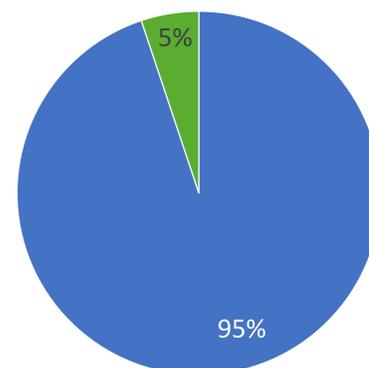
Results

A total of 287 patients (mean age=62 years; SD=16 years; 53% men) were enrolled.

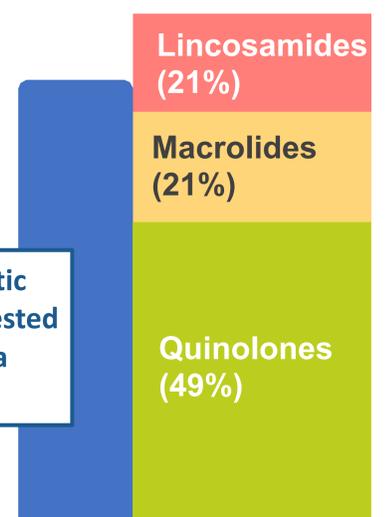


Appropriateness of cephalosporin treatment

- Treated previously with cephalosporins
- Cross-reactivity

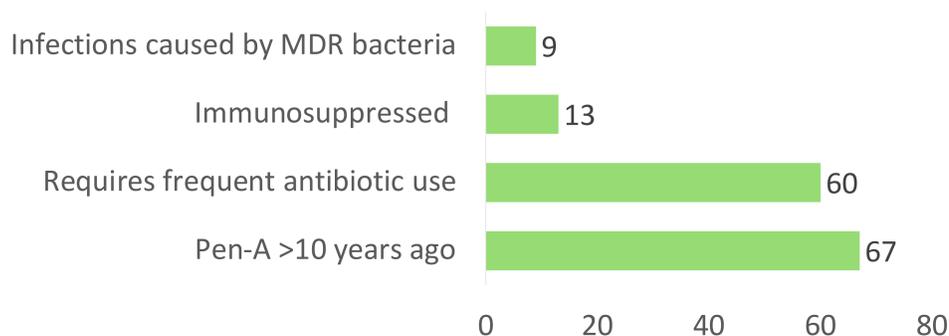


Main antibiotic prescribed in Pen-A patients



88% cases, antibiotic hospital guides suggested treatments with a cephalosporin.

30 (65,2%) patients meet criteria to consider referring to PST:



Conclusions

- ✓ Most patients, around 80% would have been spared the use of BSA if the Pen-A label had been assessed.
- ✓ Furthermore, most patients who had received cephalosporins did not have cross-reactivity.
- ✓ The introduction of PST could help correctly verify Pen-A in 65,2% patients.
- ✓ Hereinafter, ED-pharmacist will be prepared to evaluate possible Pen-A to reduce the use of BSA and de-label when necessary.