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 use in emergency department (ED).
- Identify patients who remain appropriate candidates to receive beta-lactam therapy or cephalosporins, are mislabeled or may be dislabeled 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.

Results

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

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.