Evaluating the Utility of a Penicillin Allergy Reconciliation Program within an Infectious Diseases Consult Population in a Community Health System

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Background

- Up to 10% of the population, and 15% of inpatients, report a penicillin (PCN) allergy, while ~90% are not true allergies. Over-reported PCN allergies lead to higher drug costs, worse patient outcomes, and increased risk of resistance.1,2
- Our 714-bed community health system includes two hospitals, Candler and St. Joseph’s, and has 4 Infectious Diseases (ID) physicians that rotate between both hospitals.
- Our institution (Candler) uses a Penicillin Allergy Reconciliation Program (PARP) led by an ID pharmacist, pharmacy residents, and Advanced Pharmacy Practice Experience (APPE) students to clarify, update, challenge, and remove allergies as appropriate.
- There is no formal allergy reconciliation program in place at St. Joseph’s.
- PARP process:
  - Perform daily report of every inpatient with a PCN allergy listed in the electronic health record (EHR).
  - Review allergy history, including past and present inpatient and outpatient antibiotics.
  - Interview patient about the history of the allergy and reaction.
  - Review interview details with preceptor and update EHR. Determine if intervention is appropriate.
  - Perform challenge or PCN skin test and educate patient on removal of allergy if applicable.

Objectives

- To evaluate allergy reconciliation and intervention among ID consult patients admitted with a penicillin allergy.
- To determine the percentage of ID consultation patients with a PCN allergy in our health system.

Outcomes

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<th>Secondary</th>
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<td>Documented penicillin allergy reconciliation in the EHR at an institution with PARP versus one without PARP.</td>
<td>Percentage of ID consultation patients in 2019 with a self-reported PCN allergy.</td>
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Methods

- Study design: retrospective chart review
- Reconciliation was defined as an edit or clarification to a patient’s PCN allergy in the EHR, which included updating the severity, reaction, or comments section as well as deleting the allergy.

Inclusion Criteria

- Inpatient at Candler Hospital or St. Joseph’s Hospital with at least one ID consultation from 1/1/2019 – 12/31/2019
- Self-reported PCN allergy
- Adults ≥ 18 years old

Exclusion Criteria

- Patients admitted to Day Surgery, 23-hour observation, Emergency Department without subsequent admission, or Labor and Delivery/ Mother Baby units

Results

PCN Allergy Reconciliations

- EHR update
- Allergy removed

Reconciliations by Type

- Candler: 44 (EHR update)
- St. Joseph’s: 1 (Allergy removed)

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Conclusions & Discussion

- A PARP was an effective method to perform penicillin allergy reconciliations and interventions, even in the presence of an ID consult. Reconciliations and interventions are not routinely being performed without a formalized program.
- Reconciliations at Candler were done by pharmacy (n=118; 100%), and reconciliations at St. Joseph’s were done by pharmacy (n=10, 66.7%) and nursing (n=5, 33.3%).
- The ID consult population had a similar percentage of patients with a listed PCN allergy as all inpatients in 2019.
- Future research: Percentage of PCN allergies that are re-added following removal.

References