

Collaborative Approach to De-Labeling Dental Patients with Self-Reported Penicillin Allergies

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Introduction

- Antibiotic resistance is a mounting threat to public health.
- The inability to utilize first-line antibiotics leads to increased health care costs and increased patient morbidity and mortality.
- In many childhood illnesses that require a penicillin (PCN) as the first-line agent, a self-reported PCN allergy can lead to poorer clinical outcomes.
- The American College of Allergy, Asthma & Immunology supports PCN allergy testing for those with an unconfirmed PCN allergy in their electronic health record (EHR).
- Patients with PCN allergy have increased hospital stays and are exposed to more antibiotics that put them at greater risk for c. difficile and drug resistant bacteria.
- As primary care providers, the role of the pediatric dentist in this antibiotic stewardship needs to be defined.

Objectives

1. Evaluate the utilization and outcomes of patients referred from a pediatric dental clinic to the Penicillin Allergy Testing Services (PATs) in an urban, children's teaching hospital.
2. Assess quality improvement (QI) strategies to complete referral care for PATs from a Pediatric Dentist referral program.

Methods

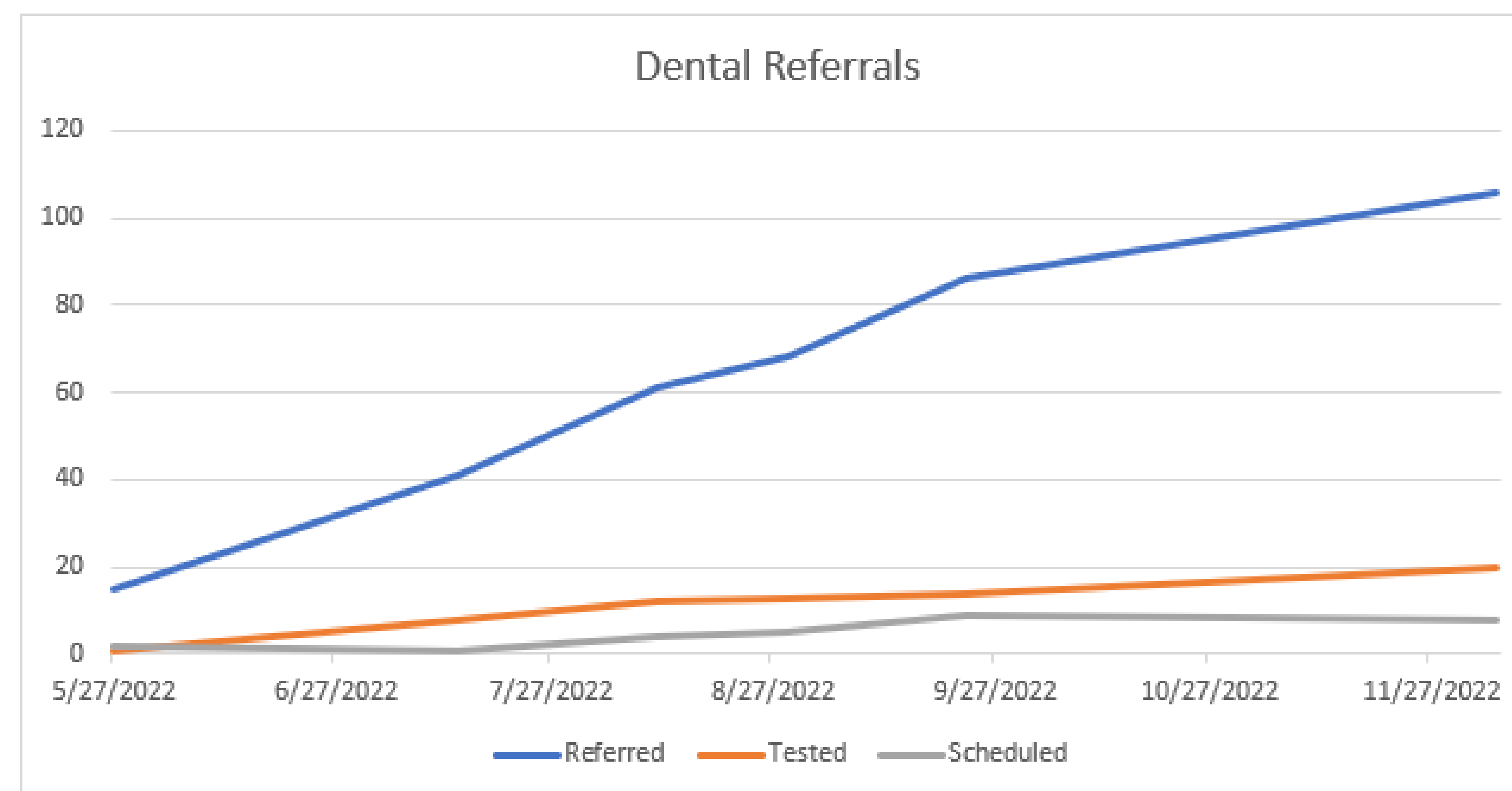
Inclusion criteria:

- Patients ages 0-18 years with a self-reported penicillin or penicillin-derivative allergy seen by the division of pediatric dentistry were referred to Penicillin Allergy Testing Services (PATs)
- Referred patients then underwent allergy testing per PATs protocol.

Results

| Total PATs Referrals (Hospital-wide) During an Eight-Month Study Period | | Results of Penicillin Allergy Testing Services | |
|---|-----------------|--|----------------|
| Pediatric Dentistry | 106 | Patients who accepted PATs referral | 106 |
| All Hospital Services | 911 | Patients scheduled for oral amoxicillin challenge | 20/106 (18.8%) |
| Percentage of Total Referrals from the Division of Pediatric Dentistry | 106/911 (11.6%) | Patients de-labeled after oral amoxicillin challenge | 17/17 (100%) |

*one patient was inconclusive, one was deferred due to having already tolerated an oral challenge, and one challenge was denied by provider due to patients' medical history



The number of pediatric dental patients that were referred, scheduled for PATs services, and were PCN allergy tested.

Discussion

- 100% of patients scheduled who completed allergy testing were de-labeled of their self reported PCN allergy.
- Hospital wide, dentistry represented 11.6% of all PATs referrals.
- Existing research analyzing referral scheduling attempts in a large hospital system showed 34.8% referral completion rate in documented primary care to specialist referral.
- Identified referral barriers included:
 - Lack of dental provider training/staff education of PATs
 - Clinical scheduling differences in providing patients with same day point-of-care appointments for PATs
 - Limited patient access to schedule PATs through online portals
 - Due to pediatric dentistry being a procedural based service, a lack of provider time during treatment and dental cleaning appointments to discuss the value of PATs
- Delabeling patients with self-reported PCN allergies can lead to improved health care and cost-savings.

Conclusions

- Pediatric dentists who encounter patients daily with a self-reported PCN allergy are in the unique position to work in collaboration with allergists to identify and refer patients with a self-reported PCN allergy for de-labeling.
- More research is required on best practices to understand and optimize patient acceptance and referral completion when referred from a pediatric dentist for PATs.

References

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