



EBD spotlight: Removing erroneous penicillin allergy labels



**Manas
Dave¹**
examines
topics
covered

in our sister journal
Evidence-Based Dentistry

‘Penicillin allergy reassessment for treatment improvement: A dental office tool to support appropriate penicillin allergy labelling’ was published in the *Journal of the American Dental Association*¹ in May 2024 and ‘How can we remove erroneous penicillin allergy labels?’ was published in *Evidence-Based Dentistry* in January 2025.²

Background

Patient reported penicillin allergies remain largely unquestioned.³ Many patients will self-report an allergy to penicillin for reasons such as:

1. Common antibiotic side effects such as nausea or diarrhoea
2. Symptoms of the treating infection being confused as side effects of the antibiotic
3. A childhood reported allergy where the

Author information

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patient has no memory of the symptoms but has always been told.

Studies have estimated 10% of patients self-report as being allergic to penicillin but less than 1% are actually allergic.¹ Other studies have also reported that 95% of patients labelled as penicillin allergic will have a negative penicillin allergy test and tolerate exposure to penicillin.³ Unverified penicillin allergy is being recognised as a public health concern because of the unnecessary increased use of alternative antibiotics, increased costs and poorer patient outcomes.³

Dentists are responsible for approximately 10% of all antibiotic prescriptions worldwide,⁴ hence are strategically positioned to initiate discussions with patients on penicillin allergy reassessment.

assets/docs/resources/antibiotic-stewardship/ Penicillin%20Allergy%20Reassessment%20for%20Treatment%20Improvement%20%28PARTI%29%20Tool.pdf.

Conclusions

The authors stated:

‘...the PARTI tool can help bridge the communication gaps between patients and dentists and the rest of the health care team regarding PCN [Penicillin] allergies and appropriate PCN allergy labels in patient medical records...’

Commentary

Accurate antibiotic allergy reporting is an area of research need that brings the limitations of self-reported penicillin allergy to attention. This mixed methods study was well conducted

‘This study highlights the importance of a structured approach towards understanding patient self-reported allergy status.’

Methods

The aim of this study was to develop the Penicillin Allergy Reassessment for Treatment Improvement (PARTI) tool that was designed to facilitate the re-evaluation of documented penicillin allergies with subsequent referrals for allergy testing as needed. This was done through a mixed-methods approach using patient focus groups and healthcare worker questionnaires.

Results

- In total, 15 patients engaged in focus groups and 50 healthcare workers responded to the questionnaire in the United States of America
- 86.6% of participants reported being asked about drug allergies however only 33.3% received follow-up questions about this such as timing of the reaction and symptoms. When participants provided information on their own about penicillin reactions, 40% mentioned a skin reaction during childhood, 13.3% mentioned a skin reaction as an adult and 46.7% could not recall specific symptoms but were told they had a reaction in the past
- Feedback was provided on the PARTI tool which was updated and is available to freely download online: <https://www.myads.org/>

however there were some limitations such as the lack of a pilot, no scoring tool and limited sample sizes. Overall, this study highlights the importance of a structured approach towards understanding patient self-reported allergy status.

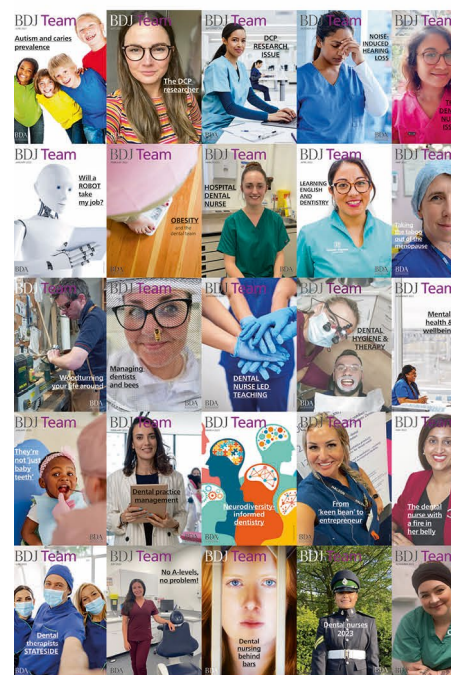
References

1. Kunz Coyne A J, Holger D, Kennedy E *et al.* Penicillin allergy reassessment for treatment improvement: A dental office tool to support appropriate penicillin allergy labeling. *J Am Dent Assoc* 2024; **155**: 379–389.
2. Yeung C A. How can we remove erroneous penicillin allergy labels? *Evid Based Dent* 2025; **26**: 50–51.
3. Copaescu A M, Vogrin S, James F *et al.* Efficacy of a clinical decision rule to enable direct oral challenge in patients with low-risk penicillin allergy: The PALACE randomized clinical trial. *JAMA Intern Med* 2023; **183**: 944–952.
4. Sbricoli L, Grisolia G, Stellini E, Bacci C, Annunziata M, Bressan E. Antibiotic-prescribing habits in dentistry: A questionnaire-based study. *Antibiotics (Basel)* 2024; DOI: 10.3390/antibiotics13020189.

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