



Antimicrobial Stewardship Opportunity: PEN-FAST for Penicillin Allergy De-Labeling

Approximately 10% of patients report having a penicillin allergy but 90% do not have true allergies.¹ De-labeling is the act of removing an inappropriate allergy from a patient’s chart. Inappropriate penicillin allergies are associated with use of broader spectrum antibiotics emergence of multidrug-resistant organisms.² However, the process of de-labeling allergies can be challenging. What tools are available to facilitate penicillin allergy de-labeling?

What is PEN-FAST?³

PEN-FAST is a tool designed to identify patients at low risk for a true allergy who may safely receive an oral amoxicillin challenge. Patients who tolerate an oral amoxicillin challenge can be de-labeled.

PEN	Penicillin allergy reported by patient	<input type="checkbox"/>	Proceed with assessment if yes
F	Five years or less since reaction	<input type="checkbox"/>	2 points
A	Anaphylaxis or angioedema	<input type="checkbox"/>	2 points
S	Severe cutaneous adverse reaction		
T	Treatment required for reaction	<input type="checkbox"/>	1 point
<p style="text-align: center;">Score Interpretation</p> <p>0: Very low risk of penicillin allergy <1% 1-2: Low risk of penicillin allergy 5% 3: Moderate risk of penicillin allergy 4-5: High risk of penicillin allergy 50%</p>			<input type="checkbox"/> Total points

How well does PEN-FAST perform?

The PEN-FAST tool has been found to have a high negative predictive value of 96.3%.³ A randomized clinical trial found that direct oral amoxicillin challenge for patients with a PEN-FAST score of < 3 was non-inferior to penicillin skin testing followed by oral challenge.²

Key Takeaway: Penicillin allergies are commonly reported, but most are not true allergies. PEN-FAST is a clinical decision tool that can help identify low risk penicillin allergy patients who are candidates for an oral amoxicillin challenge. Patients who tolerate the oral amoxicillin challenge can be have their penicillin allergies removed (de-labeled).

References:

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- Trubiano JA, Vogrin S, Chua KYL, et al. Development and Validation of a Penicillin Allergy Clinical Decision Rule. *JAMA Intern Med.* 2020;180(5):745-752. doi:10.1001/jamainternmed.2020.0403