

Clarifying penicillin allergy: PEN-FAST

- Although fewer than 10% of patients with a labeled penicillin allergy are truly allergic (e.g., hives, anaphylaxis), it is the most commonly reported drug allergy, reported by 5%-10% of outpatient and 11%-15% of hospitalized patients.¹
- Penicillin sensitization decreases drastically over 10 years; after 20 years, fewer than 1% of patients with an allergic reaction maintain their sensitivity.¹
- Nausea, vomiting, rash, and a family history of penicillin allergy are not reasons to avoid treatment of syphilis with penicillin.²

PEN-FAST can be used for adult patients (age ≥ 18) with a documented penicillin allergy who need syphilis treatment. **It is not appropriate for pregnant patients.**

Scoring using PEN-FAST³

Component	Description	Score
PEN	Penicillin allergy reported by the patient	Yes
F	Five years or less since reaction	2
A	Anaphylaxis or angioedema	2
S	Severe cutaneous adverse reaction	2
T	Treatment required for reaction	1

Using the PEN-FAST score³

Score	Risk of positive penicillin allergy test	Recommendation
0	Very low risk (< 1%)	Prescribe first-line penicillin therapy
1-2	Low risk (5%)	Give an oral penicillin challenge
3	Moderate risk (20%)	Prescribe alternate therapy*
4-5	High risk (50%)	

*Pregnant patients may require desensitization; consult with allergy or infectious disease.

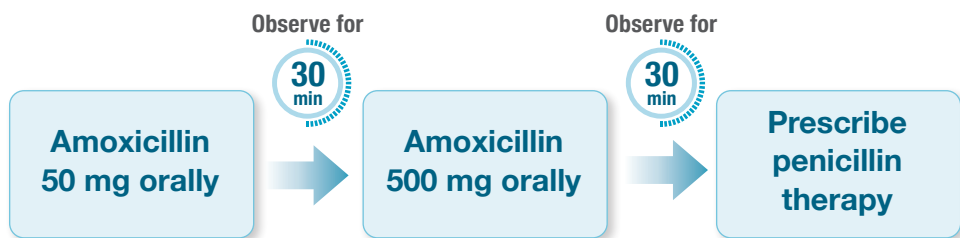
A **Penicillin Allergy Verification Consult**, available at some sites, uses PEN-FAST to guide prescribing. If not available, consider creating a template and establishing a process and protocol for oral penicillin challenge in the clinic.



These are general recommendations only; specific clinical decisions should be made by the treating clinician based on an individual patient's clinical condition.

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Oral challenge with amoxicillin



Remove the penicillin allergy from the patient record.

Treatment in patients with a true penicillin allergy^{4,5}

Patient category	Recommended treatment	Duration of treatment
Adults with early syphilis	Doxycycline 100 mg orally twice daily	14 days
	Tetracycline 500 mg orally four times daily	14 days
Adults with late syphilis	Doxycycline 100 mg orally twice daily	28 days
Pregnant patients	Desensitization (best option)	
<i>If desensitization is unavailable in early syphilis</i>	Erythromycin 500 mg orally four times daily	14 days
	OR Ceftriaxone 1000 mg IM once daily	10-14 days
	OR Azithromycin 2000 mg orally (if susceptible)	Once
<i>If desensitization is unavailable in late syphilis*</i>	Erythromycin 500 mg orally four times daily	28 days

*Requires treatment of infant with parenteral penicillin for 10 to 15 days.

(1) Broyles AD, et al. Practical Guidance for the Evaluation and Management of Drug Hypersensitivity: Specific Drugs. *J Allergy Clin Immunol Pract.* 2020;8(9s):S16-s116. (2) Centers for Disease Control and Prevention. Sexually Transmitted Infections Treatment Guidelines, 2021: Managing Persons Who Have a History of Penicillin Allergy. <https://www.cdc.gov/std/treatment-guidelines/penicillin-allergy.htm>. Accessed Aug 29, 2024. (3) Copaescu AM, 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(9):944-952. (4) World Health Organization. *WHO Guidelines for the Treatment of Treponema pallidum (Syphilis)*. Geneva: World Health Organization; 2016. (5) Centers for Disease Control and Prevention. Sexually Transmitted Infections Treatment Guidelines, 2021: Syphilis. Jan 16, 2024; www.cdc.gov/std/treatment-guidelines/syphilis.htm. Accessed Aug 15, 2024.