Kentucky Antimicrobial Stewardship Innovation Consortium

Educational Pearl

Decoding a Drug Allergy History

A drug allergy, or hypersensitivity reaction, is an abnormal immune response after administration of a medication. This may be immediate (most likely IgE-mediated) or delayed (IgG or T-cell mediated). These reactions can vary widely in severity. Additionally, misuse of the term "allergy" is common in medical records, where an adverse reaction to a medication or a symptom of their illness may be mischaracterized.[1-2] How should clinicians interpret drug allergy histories and approach prescribing?

What questions should be asked to obtain an accurate drug allergy history?[2]

When a patient's medical record reports an allergy without additional detail, it is impossible for clinicians to accurately assess the risk associated with the drug. These questions help clinicians gather further details about the reaction, determine how likely it is that the reaction was related to the medication, and assess the risk versus benefit of administering the same or a similar medication.

- What was your reaction to the medication?
- When did the reaction occur?
- What medication was prescribed? Why were you taking it?
- How long did you take the medication before the reaction developed?
- Did you go to the emergency department or seek medical care for the reaction?
- Have you taken any similar medications since?

Table 1. Probability of Drug Allergy and Appropriate Management[1-2]

	Signs/Symptoms	Clinical Management
High probability of drug allergy or severe hypersensitivity reaction	• Reaction occurred after first administration • Angioedema, wheals, wheezing, respiratory arrest, hypotension • Required epinephrine or emergency care • Systemic involvement (e.g. eosinophilia)	Avoid administration of medication class or cross-reactive medications. Consider medication desensitization for short-term use if risk outweighs benefit. DO NOT de-label allergy after desensitization. If the medication is needed again in the future, repeat desensitization is necessary.
Low probability of drug allergy or low-severity hypersensitivity reaction	• Urticaria, especially delayed or self-limiting • Non-itching rash • Headache, dizziness, malaise • Unknown childhood reaction • Family history of allergy but no know exposure • Symptoms consistent with underlying disease • Drug tolerance after index reaction	Consider skin testing or drug challenges with 1-2 doses. If results indicate a patient is NOT allergic, remove allergy from medical record and document rationale (de-label). Review specific guidance on antibiotic classes in 2022 AAAAI/ACAAI Drug Allergy Guidelines.[1]
Misdiagnosis of drug allergy	• Known side effect of medication (e.g. diarrhea with amoxicillin/clavulanate) • Patient reports they are not allergic	Administer medication as usual. Remove allergy from medical record and document rationale (de-label).

Key Takeaway: Adverse reactions/allergy misdiagnosis can be de-labeled. Patients with low-severity hypersensitivity reactions are potential candidates for drug challenges, skin testing, and de-labeling. Desensitization may be needed for patients with a history of severe hypersensitivity reactions.

References:.

1. Khan DA, Banerji A, Blumenthal KG et al. Drug allergy: A 2022 practice parameter update. *J Allergy Clin Immunol* 2022;150(6):1334-1393.
2. Garcia-Aviles C, Martin-Lazaro J and Gastaminza G. How to take a good clinical history in cases of allergic reactions to medications. *J Investig Allergol Clin Immunol* 2022;32(3:121-190.

Created 6.11.25