Penicillin Allergy Labels Pathways Forward in Patient Care

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Penicillin Allergy Labels: Disclosures



No financial or conflicts of interest to disclose

Penicillin Allergy Labels: Agenda

- Brief overview of PCN allergy labels
- Describe UW's Current Initiatives
 - ✓ Decision tools
 - ✓ Pre-op
- Vision for Primary Care





Penicillin Allergy Labels: A Hot Mess

- "I'm allergic to penicillin"
- 10% of Americans report a "penicillin allergy"
- > 90% of these are bogus! (nausea, yeast infxn....)
- Beta-lactams are generally safe, effective, welltolerated
- 50% increase in surgical site infections and adverse reactions with second-line abx (vanco alone, clinda, FQ)







Penicillin Allergy Labels: Opportunity!

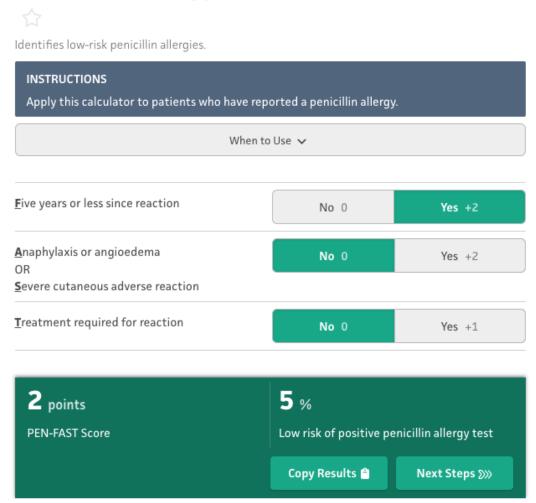
"History is key"

- WHAT? (Airway? Intubation? Itching? "Hives" used differently by folks)
- WHEN? (Relation to dose? >10 years ago?)
- WHO? (Witnessed, recorded, historical?)
- Beware of bad info in the EMR!
- Patient need elective surgery? Often on abx? You have time to get this right!
- Start thinking about abx allergies before abx are needed

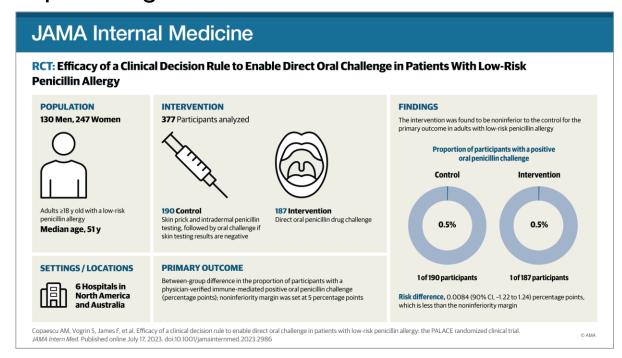


Penicillin Allergy Labels: A Way Forward!

Penicillin Allergy Decision Rule (PEN-FAST) PEN-FAST tool



- Predicts risk of patient having a positive penicillin skin test
- Does not address cephalosporin cross-reactivity or ceph allergies



Evaluating Penicillin

Taylor A. Banks 1 · Mark Tucker 2

Published online: 22 M © Springer Science+B

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Practice parameter

Scottsdale, Ariz: Lebanon, NH: and New York, NY

Drug allergy: A 2022 practice parameter update



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kin Testing Safely icant Delayed-Onset



Keren Meir-Shafrir, MDa, Tali Stauber, MDa,b, d Arnon Goldberg, MDa,b Kfar-Saba and Tel-Aviv, Israel

comes of Oral Graded Challenges to hout Prior Skin Testing



ago Alvarez Arango, MDb, Denisa Ferastraoaru, MDa, Nadeem Akbar, MDc, Cohen, DrPHd, and Elina Jerschow, MD, MSca Bronx, NY: and Baltimore, Md

penicillin allergy testing?



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ne 25, 2018 ly 20, 2018. ly 30, 2018.

anconfirmed penicillin allergy should have their penicillin allergy evaluated and, if appropriate, tested to confirm

ith a penicillin-associated history of anaphylaxis, rash, gastrointestinal symptoms, headaches, other low-risk symptoms, ry, or a reported family history of penicillin allergy can undergo testing to confirm current tolerance and convince the

idard test to confirm current penicillin class antibiotic hypersensitivity or tolerance is an oral challenge with a therapeu-250 mg for adults, and 1 hour of observation to confirm acute tolerance, followed by 5 days of at home follow-up to ice of clinically significant T-cell—mediated delayed-onset hypersensitivity.

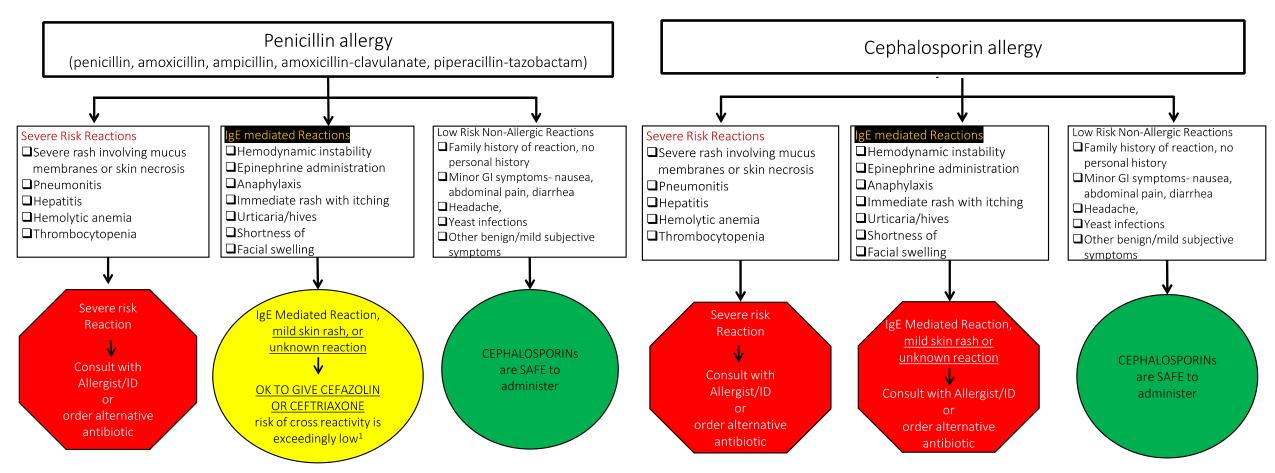
als, with penicillin reaction histories that are unlikely to be IgE mediated, can safely go to a direct oral amoxicillin chalpeutic dose to confirm current tolerance.

dermal skin testing using only penicilloyl-polylysine, with at least 5 mm of wheal and flare greater than wheal as the critest result, is now sufficient to rule out a high risk of having anaphylaxis during a confirmatory oral amoxicillin challenge.

ositive skin test results should not undergo oral challenges and, like individuals with immediately positive oral challenge penicillin desensitization if they have a documented infection for which a penicillin is the drug of choice.

Antibiotic Allergies: A Way Forward





¹Pichichero, ME (2007) Use of selected cephalosporins in penicillin-allergic patients: a paradigm shift. *Diagnostic Microbiology and Infectious Disease*. 57: 13S – 18S. ¹Kurvuvilla, M (2020) A Streamlined Approach to Optimize Perioperative Antibiotic Prophylaxis in the Setting of Penicillin Allergy Labels. JACI 8(4):1316-1322 https://www.allergyparameters.org/published-practice-parameters-guidelines/alphabetical-listing/drug-allergy-download/

Contact UW Antimicrobial Stewardship (www.edu) with any questions.

For automated tool to assist in risk stratification, go to: https://tinyurl.com/UWPreOpAbx



"Got Antibiotic Allergies? There's an App for That!"

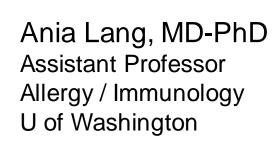
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Try Me!





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Let's Go!

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Penicillin Allergy Labels: Periop Prophylaxis

4/1/23: Email reminder to UWMC surgeons & anesthesiologists

- Use <u>cefazolin</u> for periop ppx whenever possible
- This includes most PAL patients
- PAL assessment guidance online
- UPDATED ordersets to allow for correct ordering

Penicillin Allergy Assessment Tool



This clinical decision support tool will assist with assessing penicillin allergies. As you answer the questions, the tool will direct you about antibiotic options for your patient.

This tool is not intented to assess cephalosporin allergies. If your patient has only a cephalosporin allergy, please see beta-lactam allergy guidelines or refer to allergy.

UW Beta-lactam Allergy Guidelines are available on OCCAM: https://occam.uwmedicine.org/antibiotic-reference-kit/penicillin-allergy/assessment-of-penicillin-allergy/

Please select "Submit" when complete.

Thank you!

MRN		
What penicillin antibiotic is the patient allergic to?	 amoxicillin (Amoxil), amoxicillin/clavulanate (Augmentin), ampicillin, and/or ampicillin/sulbactam (Unasyn) piperacillin/tazobactam (Zosyn) other penicillin (penicillin, dicloxacillin, nafcillin, oxacillin, etc) patient had POSITIVE penicillin skin test, but has never taken a penicillin antibiotic 	
Follow-up Questions		
In which clinic/facility/hospital is the patient being evaluated?	 Hall Health Sexual Health Clinic Outpatient HMC Inpatient UWMC-Montlake Inpatient UWMC-Northwest Inpatient HMC Other 	

Home > Antibiotic Reference Kit > Penicillin Allergy > Assessment of Penicillin and Cephalosporin Allergy

Assessment of Penicillin and Cephalosporin Allergy

80-90% of patients who report a penicillin (PCN) allergy do not have a true allergy that would preclude the use of other betalactam antibiotics.

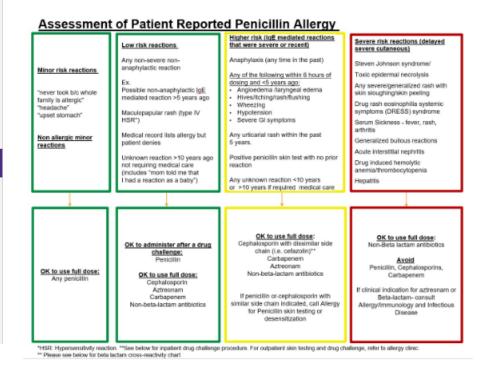
General Approach to Allergy Assessment in OCCAM:

- For patients with penicillin allergy history, use Penicillin Allergy Assessment Tool (see link below) to assess your patient's prior specific reactions in addition the algorithm below.
- For cephalosporin allergies, use the algorithm and then refer to the beta-lactam cross-reactivity chart if the algorithm indicates. (DO NOT go directly to the Cross-reactivity chart to assess cephalosporin allergies.)
- For pre-op assessment of allergies, follow this link to the algorithm located in OCCAM. Administering test doses in the pre-op setting is not feasible, therefore a simipler algorithm was developed.

Penicillin Allergy Assessment Tool

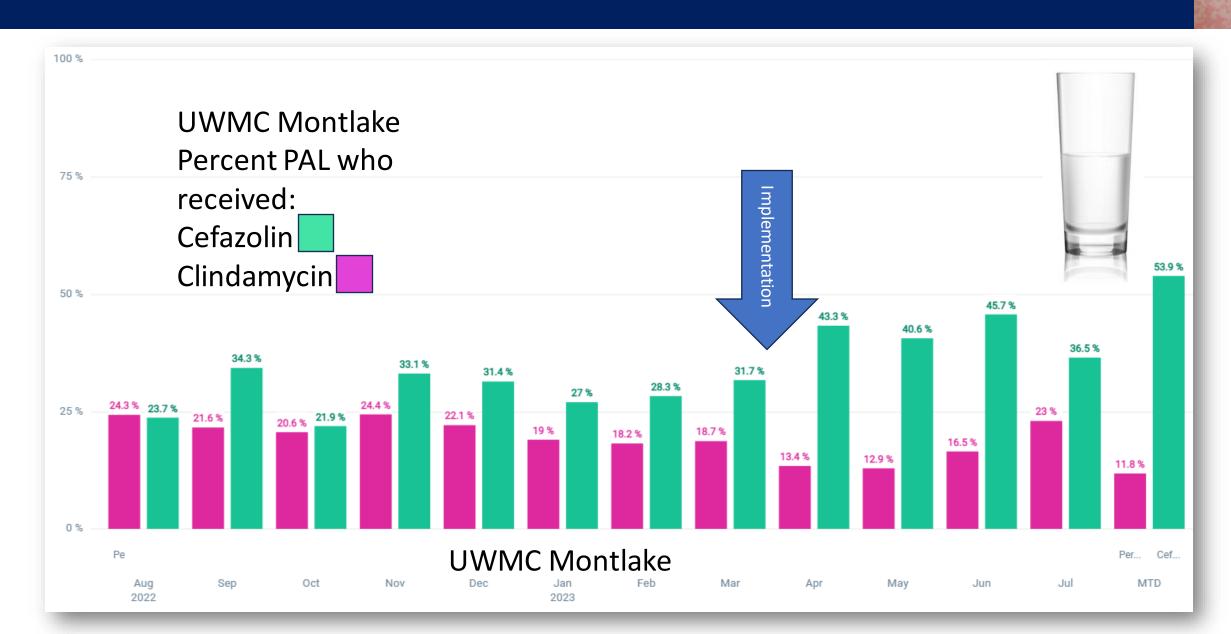
Page the on-call Allergy Fellow if assistance is needed with the evaluation or if any clarification to the procedure is needed. If the beta-lactam pathway was not used on a patient, please place a referral for allergy clinic.

Full Document PDF



– M	ledications
	patient reports penicillin allergy:
2.	Assess allergy using the Penicillin Allergy Assessment on OCCAM. Choose appropriate antibiotic prophylaxis. Note that cefazolin and ceftriaxone are safe in patients with hives, rash, or naphylaxis to penicillin.
Per	P&T approval, pharmacist to adjust weight-based antibiotics according to dosing listed in the order set
0	Pre Op Antimicrobials STANDARD
\odot	For Penicillin Allergies with Delayed Severe Cutaneous Reactions (DRESS, SJS) or Any Cephalosporin Allergies
	For more information, please refer to the Penicillin Allergy Assessment on OCCAM.
	☐ GI/Colorectal/GYN-ONC
	☐ GYN/OB
	☐ GU Surgery
	☐ Head/Neck
	ORTHO/Thoracic/VASC/NSURG/Burns-Plas/CLEAN procedures
	ORTHO Shoulder
	☐ H/O MRSA within the last ONE year or Positive MRSA screen

Penicillin Allergy Labels: Periop Prophylaxis



Upcoming updates!

You have ordered a cephalosporin in a patient with a penicil n allergy

ASSESS NOW for History of cutaneous reactions related to penicillin (Steve Johnson's, TEN or DRESS)



If the patient had this type reaction, REMOVE and choose an alternative antibiotic.

Review OCCAM for alternatives.



If not, KEEP and proceed.

This cephalosporin is SAFE in patients with hives, rash, or anaphylaxis to penicillin.

Penicillin Allergy Labels: Pharmacy Alerts

Upcoming updates!

BestPractice Advisory - McBoatface Jr., Boaty

BestPractice Advisories (1)

Cephalexin, Cefadroxil, Cefprozil and Cefaclor are structurally similar to penicillin and your patient may have a reaction.

ASSESS the allergy to penicillin OR select an alternative antibiotic.

Penicillin Allergy Assessment Tool (https://redcap.iths.org/surveys/?s=7HJ8HMY87A7C7NRJ)

rtemete are renorming orders.

Remove

Keep

cephalexin (Keflex) capsule
Oral, Starting today at 1506

DEFAULT to Remove

√ Accept

Dismiss

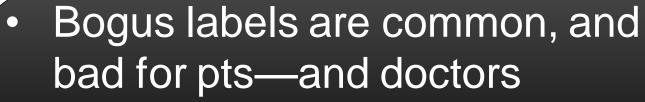
Penicillin Allergy Labels: Primary Care

Pilot Options: Things to Try in Primary Care for 3 Months

- ✓ Keep labels on the agenda, regardless of visit diagnosis
- ✓ MA confirms allergy labels at check-in asks pt if they want to discuss their allergies. If so, chart flagged for you
- ✓ PCP / UC provider discuss allergy label, or if too busy ask MA to schedule pt for a non-urgent telemed visit
- ✓ Outreach to patients across the practice, alerting them to importance of discussing this with PCP

Penicillin Allergy Labels: Conclusions





PAL-ergy tool is free & open source

 Primary Care can address this relatively painlessly: Time to deal with labels is <u>before</u> pt needs antibiotics



