How can I use my Penicillin toolkit?

If you would like to be more active and known as the 'go-to' immunologist in your community, one way is to let both the public and your colleagues know what you can do that no one else can. Each time you remove 'penicillin allergy' from a chart, you save the patient and the medical system huge amounts of money in the long run.

Some strategies that have been used by ACAAI members include radio and TV interviews, articles in local newspapers and community newsletters, as well as more formal articles in a local medical society's communication that, once published, can be sent to referring colleagues, particularly PCPs.

Getting an interview

In order to be interviewed by a media outlet – radio, tv, newspaper, magazine or website – you need to distinguish yourself as a local expert. One way to do that is to send a pitch letter to the assignment editor, producer or columnist of whatever outlet you follow. Make sure you know and can reference their work, ie: "I heard/saw the story you did on XYZ hospital and thought you got to the heart of the issue." Let them know you understand local issues and that you can speak on allergy and immunology topics. Following are a sample pitch letter and news release on the topic of penicillin allergy. Feel free to tailor it to your community and your expertise. Most reporters and editors prefer to get information via e-mail, so that's usually the best way to communicate.

You can use this release as:

- Material you can distribute to local media (sample cover email below)
- Content to upload to your website and/or newsletter
- Informational flyer for patients/public

Cover E-mail to Media Outlets

Subject: Have you Been Told You're Allergic to Penicillin? There's a Good Chances You Aren't

Dear [INSERT REPORTER'S NAME],

Have you ever been told you're allergic to penicillin – and then spent years avoiding penicillin and warning your doctor not to use it when treating an infection? Many people think they're penicillin-allergic, but recent studies show that a large majority of those who have been told they're allergic to penicillin are actually not.

Below my signature is a news release on the topic and I urge you to use the information to alert your audience to this important information.

As a local allergist who specializes in diagnosing and treating allergies, I would be happy to speak with you about testing those who think they're allergic to penicillin – and finding alternate treatments for those who are.

I'm available by phone [INSERT PHONE NUMBER] or email [INSERT EMAIL].

Thank you for your time,

[INSERT NAME]
[INSERT PRACTICE]

Think You're Allergic to Penicillin? Odds are Good that You Aren't

Allergists urge testing to be sure

[INSERT YOUR CITY, STATE] [INSERT DATE] – Does your medical chart read 'Penicillin allergy?'

Penicillin is one of the most important antibiotics doctors can prescribe for ear, sinus, chest, throat and skin infections. Penicillin has many advantages – it's often the best drug to treat infections, is safe to use during pregnancy and breastfeeding, it's well tolerated in children and is very economical.

Of all the drug allergies, penicillin allergy is the most common. "Many people, after having experienced a minor reaction to penicillin, are told by their physicians that they are allergic when it has never been clinically established, or the patient assumes he or she is allergic," said allergist (INSERT NAME, INSERT PRACTICE) "That said, a small portion of the population is allergic to the drug." Allergic symptoms vary from a mild skin rash to a severe chain reaction within the body called anaphylaxis, which can be fatal.

Doctors tend to err on the side of caution and note it on your medical record. Even when the initial allergic response is minor, subsequent exposure to the antibiotic can trigger a severe life-threatening anaphylactic reaction. If your doctor is unable to prescribe penicillin for you, it restricts your medication choices. Less effective or more expensive antibiotics may be needed to deal with common infections.

Over the years, Dr. (INSERT YOUR NAME) has seen patients reporting penicillin allergies in a number of ways. "I've had patients come in and report an allergy because they had a reaction when they were very young and their parent told them they were allergic. Other patients worry that they may have inherited a penicillin allergy from a family member, or are confused about the difference between penicillin's side effects and a true allergic reaction."

If you think you have a penicillin allergy, consider seeing an allergist for testing – 90 percent of patients tested are found not to be allergic. The standard test for penicillin allergy involves skin-prick testing (introducing the allergen by scratching the skin) and intradermal testing (injecting the allergen just beneath the skin).

A positive result would confirm that you should not take penicillin. A negative result may be followed by a controlled test in your allergist's office with oral dose(s) of penicillin to truly ensure that you are not allergic to the drug.

"Anyone who thinks they may have had an allergic reaction to penicillin should schedule a consultation with a board-certified allergist," said Dr. (INSERT YOUR NAME). "In most cases, the 'penicillin allergy' label can be removed from your chart."

If you think you might be one of the more than 50 million Americans that suffer from allergies and asthma, you can track your symptoms with the free online tool, MyNasalAllergyJournal.org. You can also find an allergist in your area with the ACAAI locator tool.

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Suggested talking points for radio interview on penicillin allergy

A lot of people listening right now might be afraid of penicillin – many of you have 'allergic to penicillin' written in your charts. According to board-certified allergist (INSERT YOUR NAME, TITLE), this may not be true. "Up to 90 percent of people aren't actually allergic to penicillin – they have carried the diagnosis since childhood and it ends up costing them every time they see a doctor." He/She says there is a simple, new test for penicillin that can put your mind at rest. When we come back, we'll talk more with Dr. (YOUR NAME).

Q: There are a lot of alternatives to penicillin, right? Why should anyone worry?
A: The alternatives may be more expensive and have a whole range of side effects that penicillin just doesn't have. And there are some problems where penicillin is still the number one treatment.

Q: If a patient's insurance is covering the medication, is cost really an issue?
A: Everyone is going to see how much medications cost when a number of the high deductible plans kick in…a lot of my patients call me and say they just can't afford the deductible for the new antibiotics.

Q: How do you test for a penicillin allergy? Is it a complicated or dangerous process?
A: It's very simple. It's an office -based procedure – we test for the breakdown products of penicillin with a handful of light skin tests. Most of the time, patients aren't actually allergic and can take penicillin if they need it – and remove that 'allergic to penicillin' from their chart.

Dr. (YOUR NAME) is a board-certified expert in allergy and immunology and a fellow/member of the American College of Allergy, Asthma and Immunology.

Suggested template for newspaper article on penicillin allergy testing

If your hometown or regional newspaper has cut staff, or doesn't have many local healthcare reporters, the editors may be looking for well-written content. Consider using this template article and filling in your name for the quotes.

Your Medical Chart may Say "Penicillin Allergy:" But are you Really Allergic?

Up to 10 percent of the US population think they are allergic to penicillin, but recent studies show that less than 10 percent of those people truly are. Are you one of these mislabeled patients? With the increased use of electronic medical records, drug allergies are a part of your medical record likely to be shared with all physicians and hospitals. Once you've been labeled "penicillin allergic," you won't receive penicillin or a related drug.

The label "penicillin allergic" in most people is due to mistaking an adverse reaction such as vomiting or diarrhea for an allergy. It's also possible to confuse an unrelated, measles-like viral rash, as being caused by penicillin. Other people may truly have been allergic to penicillin in the

past, but the allergy has gone away over time, according to Dr. (insert your name) (title or practice group/location.)

"A relatively small number of people are truly allergic to penicillin," says Dr. (insert your name). "Symptoms of a true allergic reaction can vary from a mild skin rash to a severe chain reaction within the body called anaphylaxis, which can be fatal. Anaphylaxis caused by true penicillin allergy is very rare. Because it is usually not possible to determine penicillin allergy based solely on patient history, a formal evaluation by an allergist is recommended."

Penicillin allergy is the most common drug allergy. However, penicillin is also the preferred antibiotic for ear, sinus, chest, throat, and skin infections. For those not allergic, penicillin is safe to use during pregnancy and breastfeeding, is well tolerated in children, and is very economical. Dr. (insert your name) emphasizes that your doctor's treatment choices are restricted if you are listed as allergic. The result is less effective, more expensive and often more dangerous antibiotics being prescribed to treat common infections such as sinus and ear infections.

It's important to find out if are really penicillin allergic. Of the approximately 27 million Americans reporting penicillin allergy, less than 0.1 percent undergo testing. Lack of a proper drug allergy diagnosis also encourages the widespread development of resistant organisms, and dramatically increases our total US healthcare costs. The American College of Allergy, Asthma, and Immunology (ACAAI) has developed a Penicillin Allergy Toolkit for physicians and patients to highlight the need for evaluating and testing for penicillin allergy. [ADD APPROPRIATE LINK] (Do we want patients to go to the toolkit? Don't we want allergists to print this out for their patients? Or primary care physicians? If we want patients to access certain documents, we need to make only those documents available, and not the whole toolkit.)

Penicillin allergy testing involves a simple, minimally invasive, and reliable office-based test done by a board-certified allergist. If the test are negative, you will be given an oral dose of a penicillin drug, and monitored for 1-1 ½ hours in the allergist's office. If you are negative on skin testing and do not react to an oral challenge, you may safely take penicillin in the future. A positive skin test or oral challenge would confirm you should not take penicillin.

Dr. (Insert your name) encourages anyone who thinks they are penicillin allergic to see an allergist for testing. An allergist can determine if you are truly allergic, or if the label can be removed from your chart. It's especially important to find out before you are in urgent need of a penicillin drug to treat a serious illness. To find a board-certified allergist near you visit www.acaai.org/locate-an-allergist.

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Local medical society magazine article

The article below was previously published in a local medical society's magazine. Use it as is or edit and add your own messaging. Your local medical society is usually very happy to get non-branded medical articles. Include several local allergists from different practices to help ensure it is not viewed as individual practice promotion. A good tactic is to then copy the printed magazine page and send it to both your referring and non-referring PCPs including OB/GYNs. Preface the reprint or copy with:

Dear _____,
In case you missed the article we wrote for _____, I have enclosed a copy. I want you to know that we stand ready to help you and your patients with issues of historic and current drug sensitivity, but particularly that nagging chart reference to 'penicillin allergy' which sometimes is a carryover from childhood. Each time you have to use a high potency, high adverse reaction antibiotic, remember that we can help clarify if it is really necessary. We would love to work with you.

Kindest regards,

(INSERT YOUR NAME, TITLE AND PRACTICE GROUP/LOCATION)

The scarlet letters – 'PCN allergy'

It is now possible to remove those 'scarlet letters' from your patient's charts. Techniques with testing and challenge offer a high likelihood of returning patients safely to less costly and safer antibiotics.
A conservative estimate of penicillin allergy is less than one percent, but patients report it 10-15 times that number, making it a very common warning on our charts. When taking a patient history or transferring it from a questionnaire, most of us never question it; if the patient says they are allergic, we list it despite the fact that many patients cannot remember the circumstances. When explored, 90 percent of patients tested are found not to be allergic. Physicians have been reluctant to challenge the patient's assumptions, but as the list of antibiotic sensitivities and complications accumulate we often become frustrated and worried.

The extreme caution through the years was well justified since legitimate penicillin allergy is a reproducible event that can result in life threatening anaphylaxis on re-administration, usually at the hand of a prescribing physician. The credo of 'first do no harm' is entrenched in us. Resulting avoidance of penicillin and cross-reactive beta-lactams has been the dogma for several decades, in part due to the readily available multitude of antibiotic alternatives and recent shortages of reagents for penicillin testing in a reliable manner. But, this landscape is changing. It seems that the conservative avoidance strategy itself may have ill-effects. While testing and medication challenge was usually reserved for only essential or necessary penicillin use, now elective testing is gaining favor for multiple reasons.

While reliable, commercial penicillin testing agents have been available since FDA approval in 2009, no commercial production has been available until recently, making penicillin evaluations extremely inaccurate. In the literature, many have noted the inappropriate overuse of 'penicillin allergy' for decades and commented on the resounding effects to patients, costs and antibiotic stewardship. Recent evidence continues to reinforce that we are creating undue risk to patients and costs to the system with our current practice – increased infections (like clostridium difficile, methicillin-resistant staphylococcus aureus and vancomycin-resistant enterococcus), increased hospitalization time for those with penicillin allergy, impaired optimal treatment, increased use of second-line antibiotics (clindamycin, fluoroquinolones, and vancomycin), and overall increased costs.

Elective penicillin allergy evaluation is a step in the right direction toward removing the label 'PCN allergy' from the 90 percent of patients we know are not truly allergic. This involves a careful review of the history and characterization of the original reaction followed by penicillin testing to look for allergic sensitivity, if indicated. There are several ways to do this, but utilizing skin prick and intradermal tests to major and minor penicillin determinants provides close to 100 percent confidence that the patient can be treated without a life-threatening reaction. Proceeding to an oral challenge with a beta-lactam medication after negative testing further demonstrates tolerance. This procedure provides an opportunity for beta-lactam use in these patients going forward, and to removing the allergic designation from their medical records.

Each 'penicillin allergic' patient reclassified represents a tremendous financial savings to the system, and a significant safety impact for the patient.

Resources on the subject:

J Allergy Clin Immunol. 2014 Mar;133(3):790-6. doi: 10.1016/j.jaci.2013.09.021. Epub 2013 Nov 1. Health care use and serious infection prevalence associated with penicillin "allergy" in hospitalized patients: A cohort study. Macy E1, Contreras R2.

Pharmacotherapy. 2013 Aug;33(8):856-67. doi: 10.1002/phar.1288. Epub 2013 May 26. Penicillin skin testing: potential implications for antimicrobial stewardship. Unger NR1, Gauthier TP, Cheung LW

J Allergy Clin Immunol. 1998 Aug;102(2):281-5. Elective penicillin skin testing and amoxicillin challenge: effect on outpatient antibiotic use, cost, and clinical outcomes. Macy E.

J Allergy Clin Immunol Pract. 2013 May-Jun;1(3):252-7. doi: 10.1016/j.jaip.2013.01.006. Epub 2013 Feb 14. Treatment of patients with a history of penicillin allergy in a large tertiary-care academic hospital. Picard M1, Bégin P2, Bouchard H3, Cloutier J3, Lacombe-Barrios J4, Paradis J4, Des Roches A5, Laufer B3, Paradis L4.

Stephanie J. Fox, MD; Miguel A. Park, MD. Penicillin Skin Testing Is a Safe and Effective Tool for Evaluating Penicillin Allergy in the Pediatric Population. The Journal of Allergy and Clinical Immunology: In Practice Volume 2, Issue 4, Pages 439–444, July–August, 2014

Ann Allergy Asthma Immunol. 2010 Oct;105(4):259-273. doi: 10.1016/j.anai.2010.08.002. Drug allergy: an updated practice parameter. Joint Task Force on Practice Parameters; American Academy of Allergy, Asthma and Immunology; American College of Allergy, Asthma and Immunology; Joint Council of Allergy, Asthma and Immunology.

From the ACAAI 2015 Drug Allergy and Anaphylaxis Committee