

September 8, 2020

Seema Verma
Administrator
Centers for Medicare & Medicaid Services,
Department of Health and Human Services,
Baltimore, MD 21244-8016

via email: Seema.Verma@cms.hhs.gov

RE: Verification of Penicillin Allergy as part of Mandatory Antibiotic Stewardship Programs (ASPs)

Dear Administrator Verma:

Established in 1943, the AAAAI is a professional organization with more than 7,000 members in the United States, Canada and 72 other countries. This membership includes allergist/immunologists (A/I), other medical specialists, allied health and related healthcare professionals—all with a special interest in the research and treatment of patients with allergic and immunologic diseases.

The Infectious Diseases Society of America (IDSA) represents more than 12,000 infectious diseases (ID) physicians, scientists and other healthcare professionals devoted to patient care, prevention, public health, education, and research in infectious diseases. IDSA members care for patients of all ages with serious infections, including treating meningitis, pneumonia, tuberculosis, HIV/AIDS, healthcare-associated infections, antibiotic-resistant bacterial infections, as well infectious disease outbreaks and emerging infections such as the Middle East Respiratory Syndrome coronavirus (MERS-CoV), Ebola virus, Zika virus, and now, the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) or coronavirus disease 2019 (COVID-19).

Today, our organizations write to urge the agency to continue improving its Medicare Conditions of Participation (CoPs) by requiring US hospitals to include verification of penicillin allergy as part of mandatory antibiotic stewardship programs (ASPs).

Penicillin Allergy Verification and CMS' Revised Hospital ASPs

Under CMS' recently revised conditions of participation (CoP) rule, which was initially proposed in June 2016, all US hospitals and critical access hospitals (CAHs) are now required to have infection prevention and control and stewardship programs to receive payments from Medicare. According to the final rule, the programs must be implemented six months from the date the finalized policy was published in the Federal Register (i.e., September 29, 2019) and, therefore, was effective March 30, 2020.

While we are pleased that CMS has finalized the ASP requirement, which CMS said is “aimed at effectively reducing the development and transmission of HAIs [healthcare-associated infections] and antibiotic-resistant organisms that ultimately will greatly improve the care and safety of patients while adding cost benefits for hospitals,” we are concerned that verification of penicillin allergy was not

included as an important requirement or mentioned as a key strategy to adopt in such ASPs, particularly given appropriate use of antibiotics is critical to slow the growth of antimicrobial resistance.

Focus on Verification of Penicillin Allergy

Nine out of 10 individuals who report a penicillin allergy are not actually allergic to the drug. In fact, studies have shown that an entry of “Penicillin/PCN allergy” in a patient’s medical record is associated with use of less optimal and more toxic agents (e.g. broad-spectrum vs. beta-lactams), which are often more expensive and result in worse outcomes. For example, the data on using beta-lactams for sepsis and surgical site infections (SSIs)^{1, 2} is convincing, yet clinicians avoid prescribing these agents due to erroneous “penicillin allergy” labels. The Centers for Disease Control and Prevention’s (CDC) 2018 Update Antibiotic Use in the United States: Progress and Opportunities³ agreed that “[c]orrectly identifying if patients are penicillin-allergic can decrease the unnecessary use of broad-spectrum antibiotics.”

There are data⁴ that also suggest increased inappropriate use of antibiotics results when patients are labeled as having penicillin allergies, as most prescribers are less likely to know the appropriate second- or third-line options, which likely impacts patient outcomes. Erroneous penicillin allergy labeling also contributes to higher rates of fluoroquinolone prescribing, which compromises patient safety⁵.

According to published research⁶, an unverified history of penicillin allergy can contribute to higher health care costs, greater risk for adverse effects of alternative antibiotics, and increased rates of serious antibiotic resistant infections, such as methicillin-resistant *Staphylococcus aureus* (MRSA). Indeed, during the recent meeting of the Presidential Advisory Council on Combatting Antibiotic Resistant Bacteria (PACCARB)⁷, council members received a presentation from David Khan, MD, FAAAAI – *Delabeling Penicillin Allergy: An Integral part of Antimicrobial Stewardship* – where he explained that, “[e]valuating patients for penicillin allergy to identify those who are not allergic—known as de-labeling—reduces health care utilization by these patients, translating to a cost savings of about \$1,900 per patient according to one study.”

Again, it is critically important to correctly identify those patients who are actually allergic to penicillin, and de-label those who are not, to ensure appropriate prescribing of antibiotics, which will help combat the growth of antimicrobial resistance and the development of super bugs.

Fortunately, verification of penicillin allergy is safe and effective, and testing may be performed in critically ill patients and pregnant women. More importantly, it is widely accepted as a key strategy in antibiotic stewardship programs. For example, the National Quality Forum (NQF) Antibiotic Stewardship in Acute Care: A Practical Playbook⁸, Core Element 4: Actions to Support Optimal Antibiotic Use, includes as a systemwide intervention the establishment of guidance for antibiotic allergy assessment (e.g., penicillin allergy assessment protocol, including recommendations on which patients might benefit from

¹ <https://pubmed.ncbi.nlm.nih.gov/29361015/>

² <https://pubmed.ncbi.nlm.nih.gov/31377412/>

³ <https://www.cdc.gov/antibiotic-use/stewardship-report/pdf/stewardship-report-2018-508.pdf>

⁴ <https://pubmed.ncbi.nlm.nih.gov/31662217/>

⁵ <https://pubmed.ncbi.nlm.nih.gov/28370003/>

⁶ <https://jamanetwork.com/journals/jama/article-abstract/2720732>

⁷ <https://www.hhs.gov/sites/default/files/feb-26-27-2020-hhs-amr-listening-sessions-meeting-summary.pdf>

⁸ <http://www.qualityforum.org/WorkArea/linkit.aspx?LinkIdentifier=id&ItemID=82501>

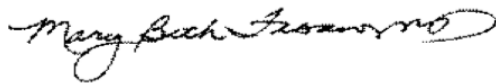
skin testing). Multiple approaches to delabeling penicillin allergy exist including penicillin skin testing by Allergy/Immunology specialists, trained pharmacists in hospitalized patients, and by advanced care providers using telehealth visits.⁹⁻¹⁰⁻¹¹ Direct challenges in low risk patients may also be performed in outpatient settings, inpatient settings, and Emergency Departments.¹²⁻¹³⁻¹⁴ We note that individuals who require penicillin or a penicillin-like drug but have a verified penicillin allergy may be offered penicillin desensitization if there is no equally effective alternative antibiotic.

Request to Require Penicillin Allergy Verification in Medicare COPs

Based on the above, we urge CMS to improve its CoP's by requiring verification of penicillin allergy as part of hospital ASPs. Specifically, we urge CMS to propose modifying its CoPs by adding a penicillin allergy verification requirement to hospital ASPs in the next hospital inpatient prospective payment system (IPPS) or other appropriate rulemaking. We also urge CMS to update its interpretive guidance with additional information to assist hospitals with implementation, including details about when to use penicillin skin testing (PST) with or without oral amoxicillin challenge. Our organizations would be pleased to assist you with recommending or drafting these updates.

We appreciate the opportunity to share our concerns about the limitations of current ASP requirements. Should you have any questions, please contact Sheila Heitzig, AAAAI Director of Practice and Policy, at sheitzig@aaaai.org or (414) 272-6071.

Sincerely,



Mary Beth Fasano, MD, MSPH, FAAAAI
President, American Academy of Allergy, Asthma & Immunology



Thomas File, MD, MSc, FIDSA
President, Infectious Diseases Society of America

⁹ Castells M, Khan DA, Phillips EJ. Penicillin Allergy. N Engl J Med. 2019;381(24):2338-51.

¹⁰ Chen JR, Tarver SA, Alvarez KS, Tran T, Khan DA. A Proactive Approach to Penicillin Allergy Testing in Hospitalized Patients. J Allergy Clin Immunol Pract. 2017;5(3):686-93.

¹¹ Staicu ML, Holly AM, Conn KM, Ramsey A. The Use of Telemedicine for Penicillin Allergy Skin Testing. J Allergy Clin Immunol Pract. 2018;6(6):2033-40.

¹² Mustafa SS, Conn K, Ramsey A. Comparing Direct Challenge to Penicillin Skin Testing for the Outpatient Evaluation of Penicillin Allergy: A Randomized Controlled Trial. The Journal of Allergy and Clinical Immunology: In Practice. 2019;7(7):2163-70.

¹³ Ramsey A, Mustafa SS, Holly AM, Staicu ML. Direct Challenges to Penicillin-Based Antibiotics in the Inpatient Setting. J Allergy Clin Immunol Pract. 2020;8(7):2294-301.

¹⁴ Vyles D, Chiu A, Routes J, Castells M, Phillips EJ, Visotcky A, et al. Oral amoxicillin challenges in low-risk children during a pediatric emergency department visit. J Allergy Clin Immunol Pract. 2020;8(3):1126-8.e1.