

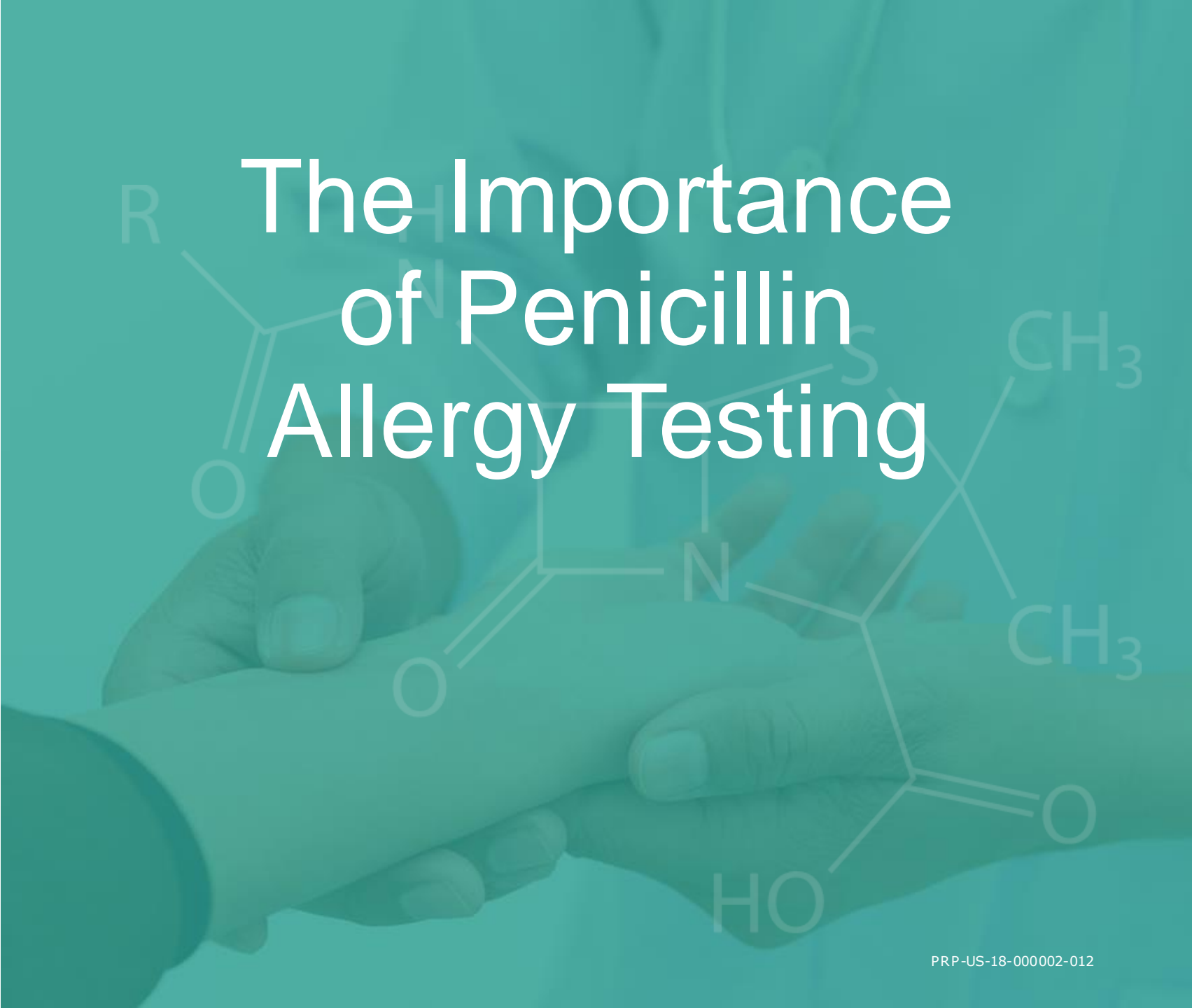
NATIONAL
PENICILLIN
ALLERGY DAY



SEPTEMBER 28TH



The Importance of Penicillin Allergy Testing

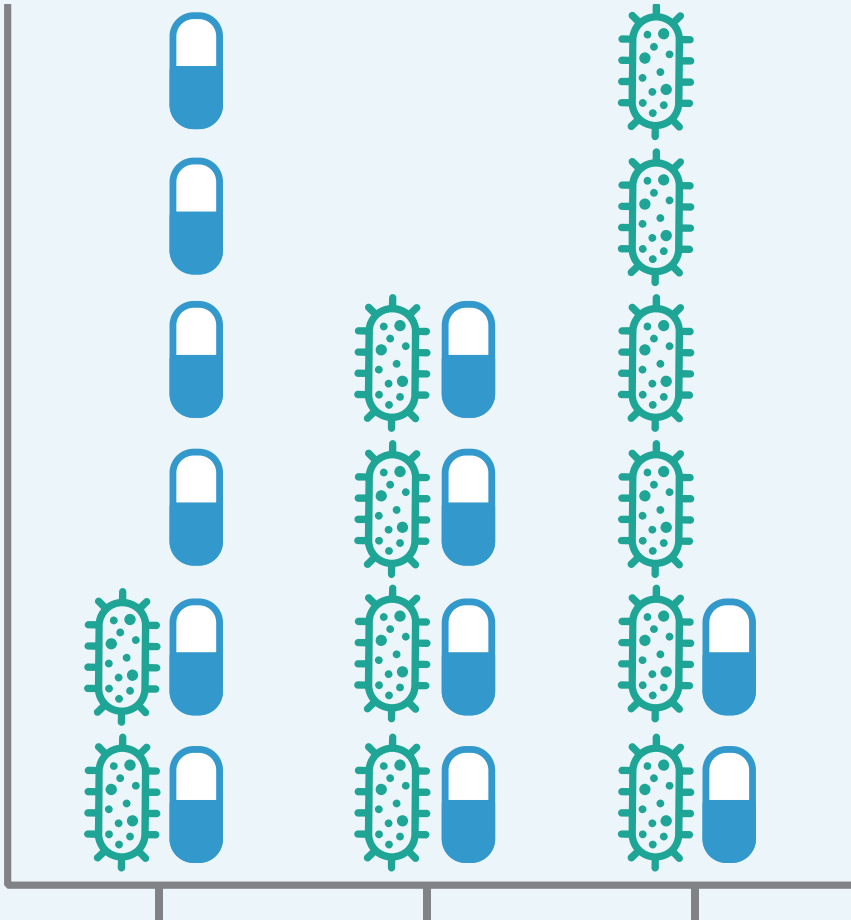




Penicillin allergy skin testing is a novel approach to address the misuse of antibiotics and to support optimal antibiotic utilization.¹



The Threat of Antibiotic Resistance

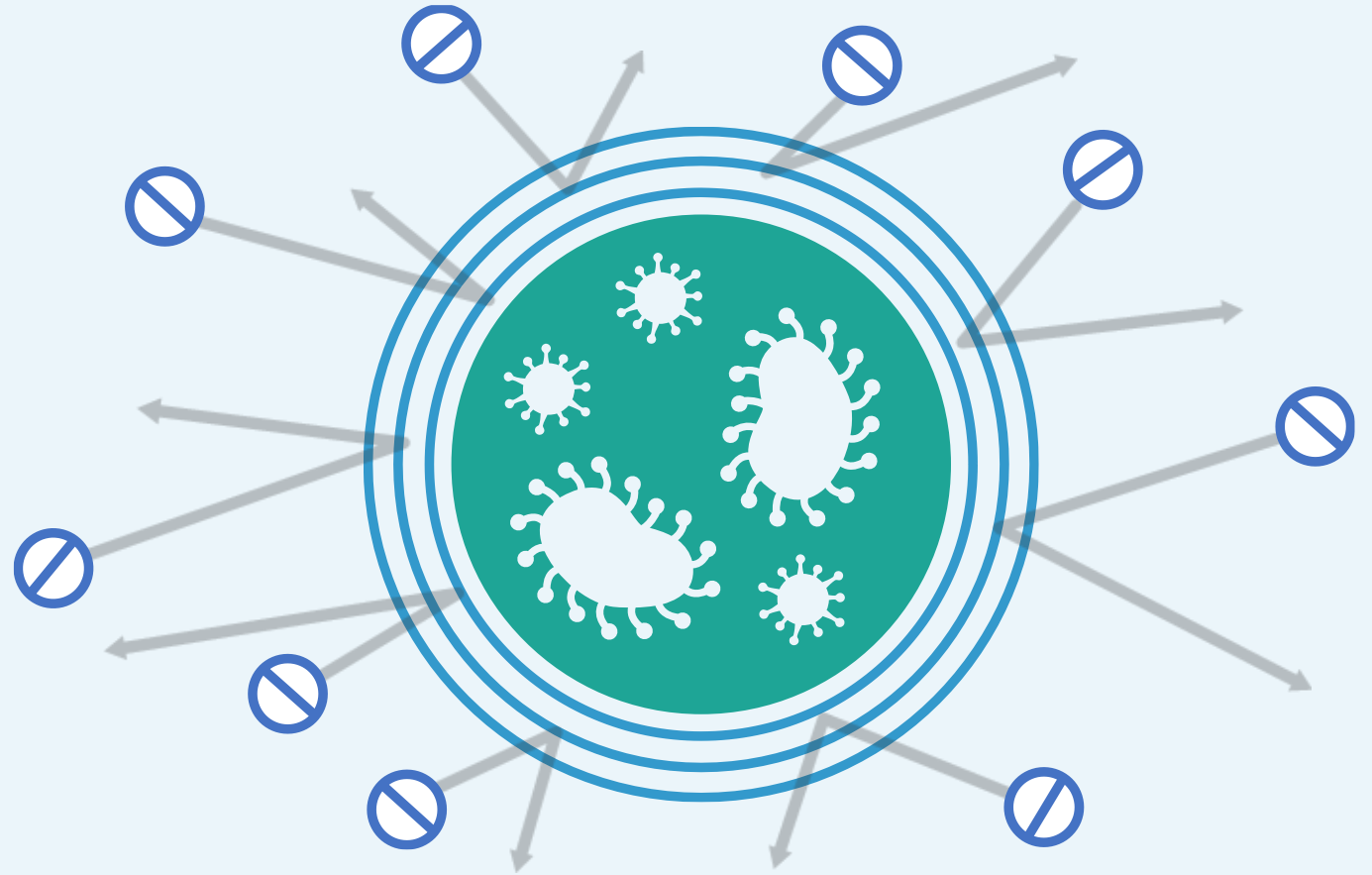


The number of **antibiotic-resistant** bacteria continues to **increase** every year.³

The number of **antibiotics** in the approval pipeline continues to **decrease** each year.³

The use of antibiotics is the single most important factor leading to **antibiotic resistance** around the world.

Antibiotics are among the most commonly prescribed drugs used in human medicine.⁴

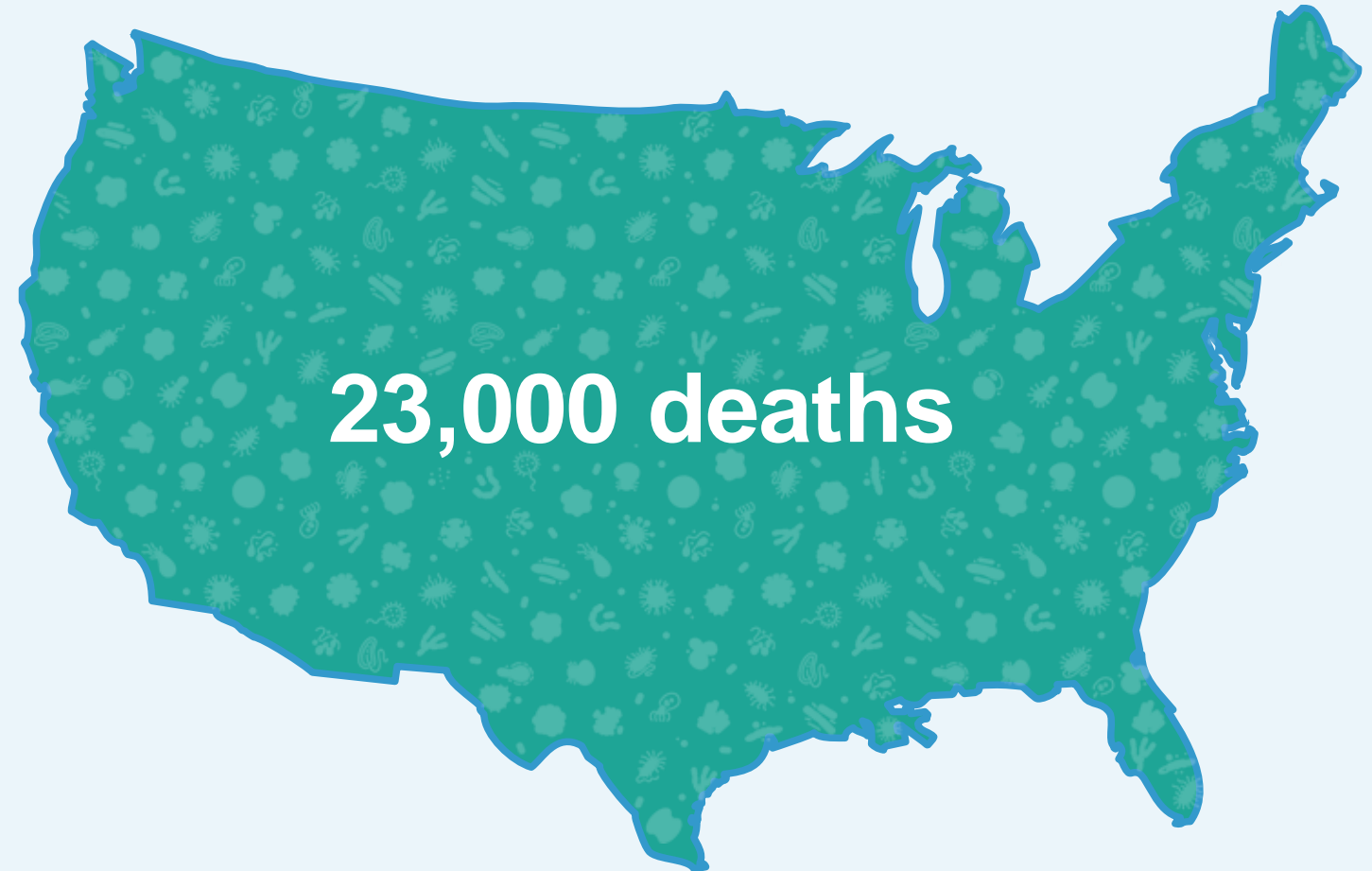


THE THREAT OF ANTIBIOTIC RESISTANCE

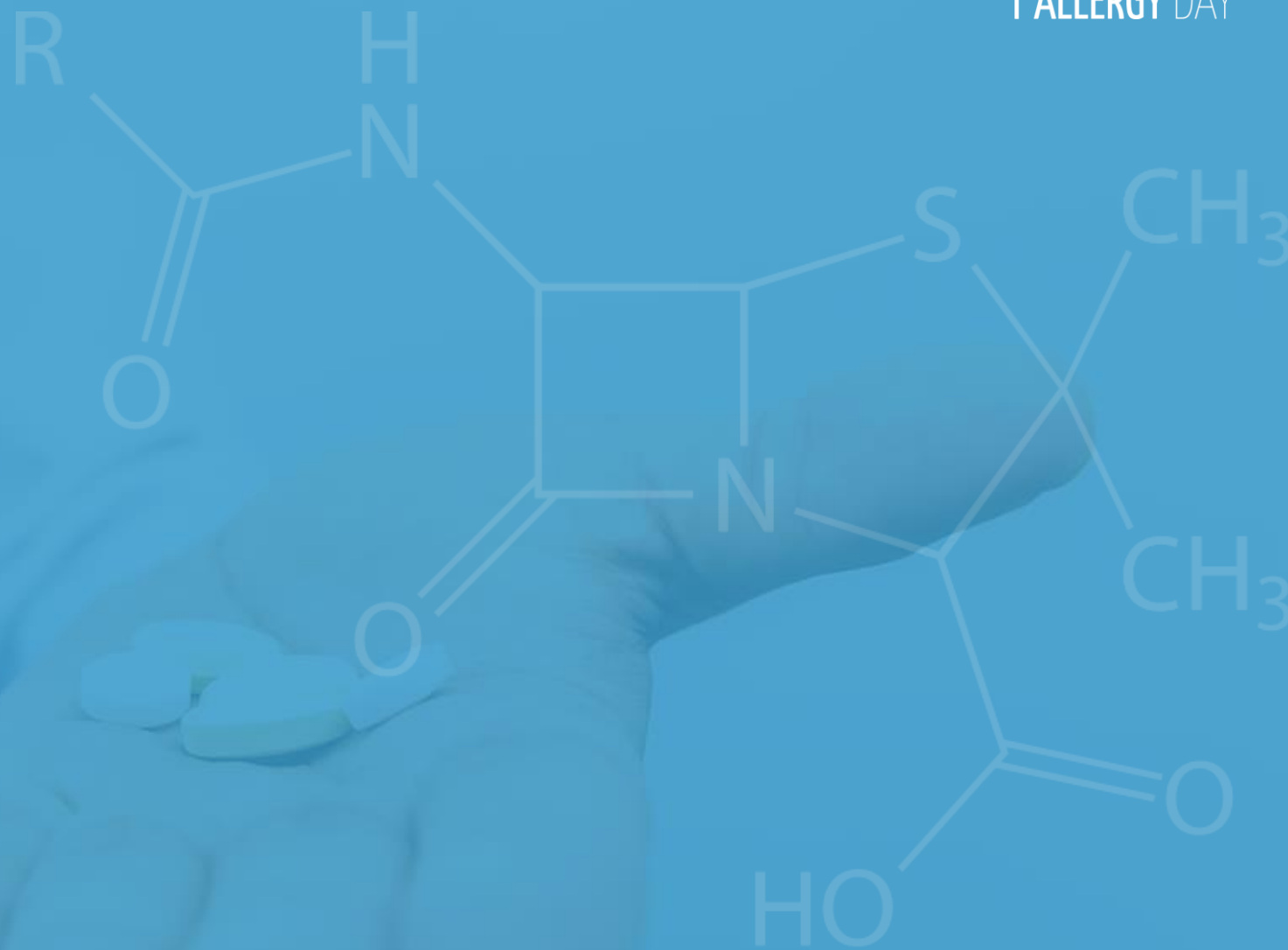


Up to 50% of all antibiotics prescribed are not needed or are not optimally effective as prescribed.⁴

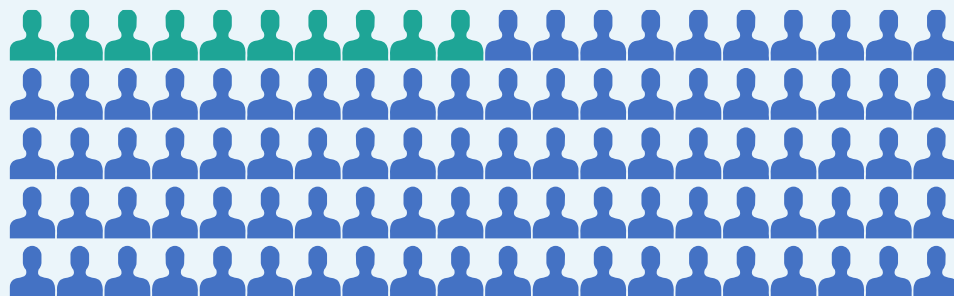
23,000 deaths
in the U.S. each year
are **caused by drug
resistant bacteria.**³



Know the Facts



Penicillin allergy is the most commonly reported drug allergy.⁶



Ten percent of patients in the U.S. report penicillin allergy.⁵



But 9 out of 10 patients reporting penicillin allergy are not truly allergic when assessed by skin testing.⁵

5. Centers for Disease Control and Prevention (CDC) Get Smart For Healthcare website. <http://cdc.gov/getsmart/healthcare>. April 2016

6. Blumenthal, Kimberly G., et al. "Addressing Inpatient Beta-Lactam Allergies: A Multihospital Implementation." *The Journal of Allergy and Clinical Immunology: In Practice* 5.3 (2017): 616-625

An unverified penicillin allergy is a significant public health problem.¹

False reporting of penicillin allergy

MAY LEAD TO ↓

Broad spectrum antibiotics use

WHICH IS LINKED TO ↓

**Increased antibiotic resistance,
cost and toxicity.¹**



True hypersensitivity to penicillin decreases over time.⁶



More than half of skin test positive patients lose sensitivity by 5 years.⁶



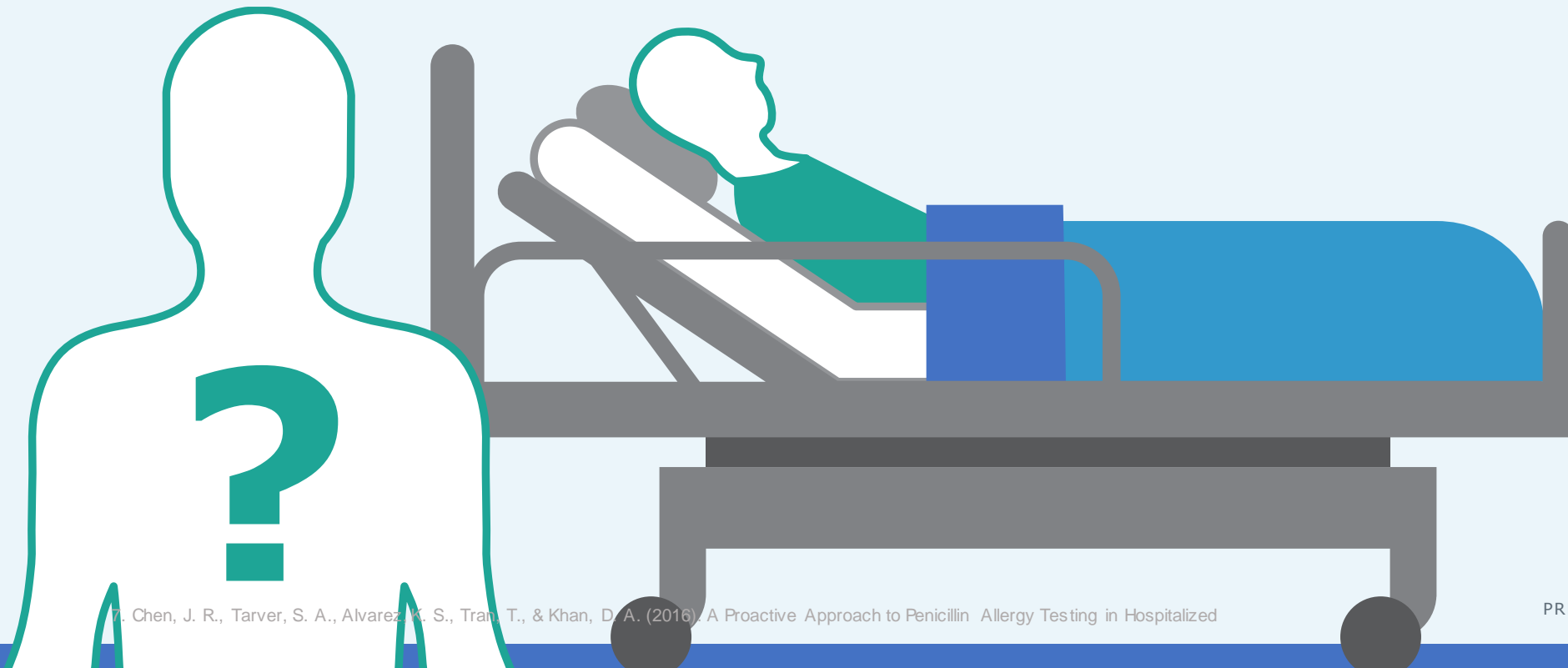
80% of skin test positive patients lose sensitivity by 10 years.⁶

The AAAAI encourages more widespread use of penicillin allergy skin testing.²



PRP PRP °
PRP °
PG PG °
PG °
—

Unverified penicillin allergy in hospitalized patients is associated with **longer hospital stays** and **increased rates** of serious drug resistant infections.⁷



In the largest study of penicillin allergy testing in hospitalized patients, penicillin skin testing **prevented more than 500 inpatient** days and more **than 600 outpatient days** on alternative agents.⁶



Incorrect penicillin allergies constitute a major barrier to antimicrobial stewardship, with significant clinical and economic implications, including increased:

- Antimicrobial resistance¹
- Overall care costs¹
- Length of stay¹
- Mortality rate¹





NATIONAL
PENICILLIN
ALLERGY DAY

September 28th—the date Alexander Fleming discovered penicillin in 1928—has been designated **National Penicillin Allergy Day**, an annual celebration to raise awareness around the impact of carrying a penicillin allergy label and how it affects a patient’s healthcare treatment.

To learn more about National Penicillin Allergy and how you can get involved, visit nationalpenicillinallergyday.com

Appendix



1. Jones, B. M., & Bland, C. M. (2017). Penicillin skin testing as an antimicrobial stewardship initiative. *American Journal of Health-System Pharmacy*, 74(4).
2. Centers for Disease Control and Prevention (CDC) Get Smart For Healthcare website <https://www.cdc.gov/getsmart/week/downloads/getsmart-penicillin-factsheet.pdf>
3. Lang, D. M., Castells, M. C., Khan, D. A., Macy, E. M., & Murphy, A. W. (2017). Penicillin Allergy Testing Should Be Performed Routinely in Patients with Self-Reported Penicillin Allergy. *The Journal of Allergy and Clinical Immunology: In Practice*, 5(2), 333-334.
4. US Department of Health and Human Services. "CDC. Antibiotic Resistance Threats in the United States, 2013." Atlanta, GA, USA: US Department of Health and Human Services, CDC (2013).
5. Centers for Disease Control and Prevention (CDC) Get Smart For Healthcare website. <http://cdc.gov/getsmart/healthcare>. April 2016
6. Blumenthal, Kimberly G., et al. "Addressing Inpatient Beta-Lactam Allergies: A Multihospital Implementation." *The Journal of Allergy and Clinical Immunology: In Practice* 5.3 (2017): 616-625
7. Chen, J. R., Tarver, S. A., Alvarez, K. S., Tran, T., & Khan, D. A. (2016). A Proactive Approach to Penicillin Allergy Testing in Hospitalized