NATIONAL PENICILLIN ALLERGY DAY

SEPTEMBER 28TH

National Penicillin Allergy Day

PRP-US-19-003

NATIONAL PENICILLIN ALLERGY DAY

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

1. Jones, B. M., & Bland, C. M. (2017). Penicillin skin testing as an antimicrobial stewardship initiative. American Journal of Health-System Pharmacy, 74(4).

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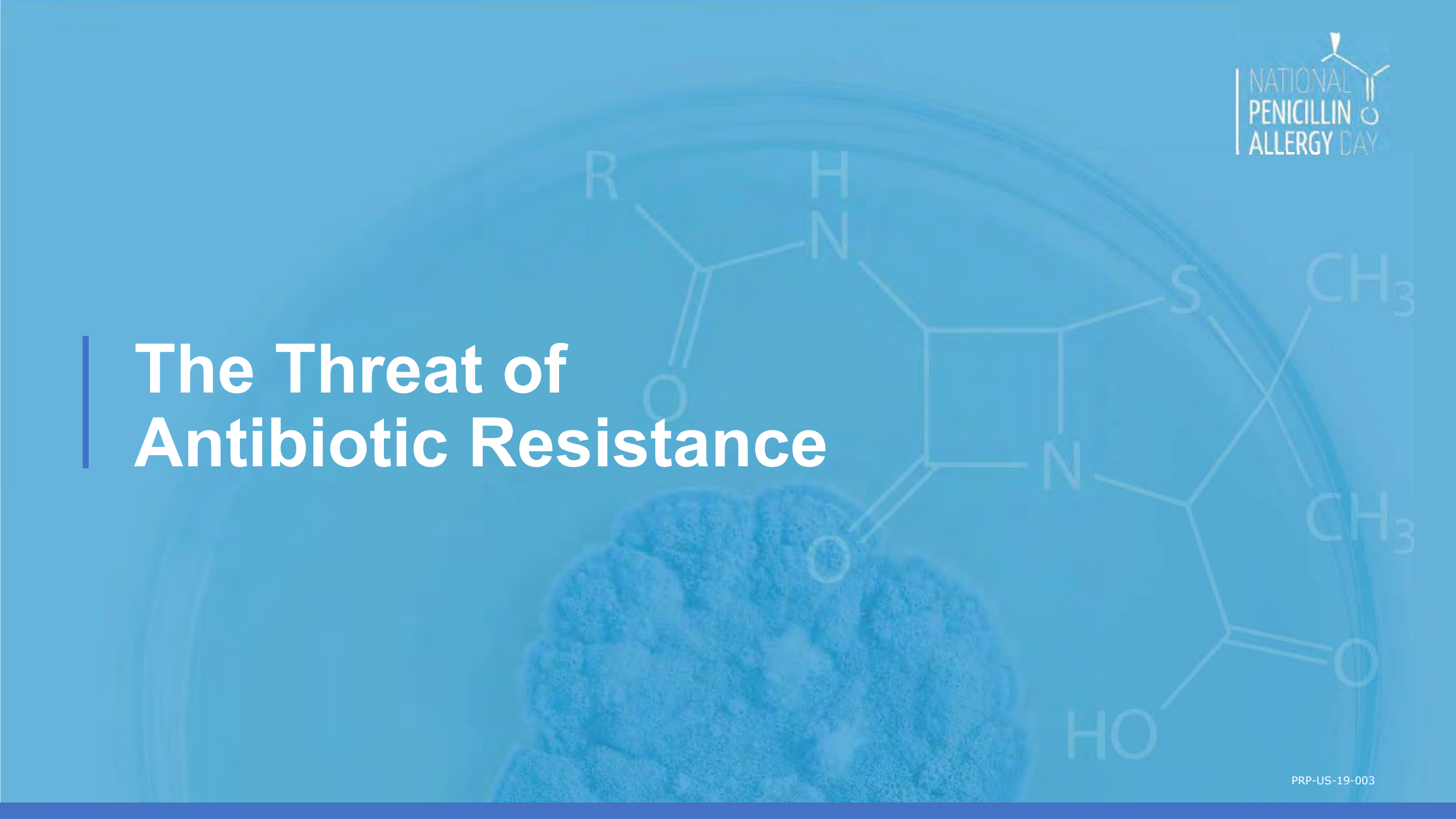
The Threat of Antibiotic Resistance



THE THREAT OF ANTIBIOTIC RESISTANCE

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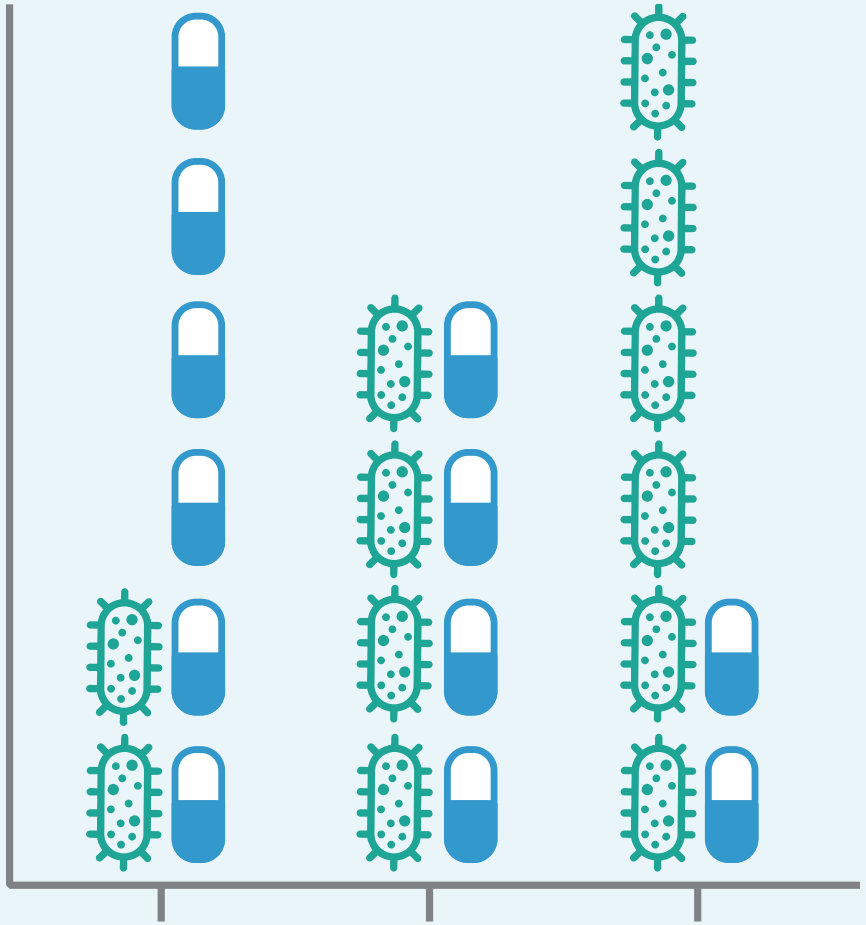

The number of **antibiotic-resistant** bacteria continues to **increase** every year.[3]

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

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.

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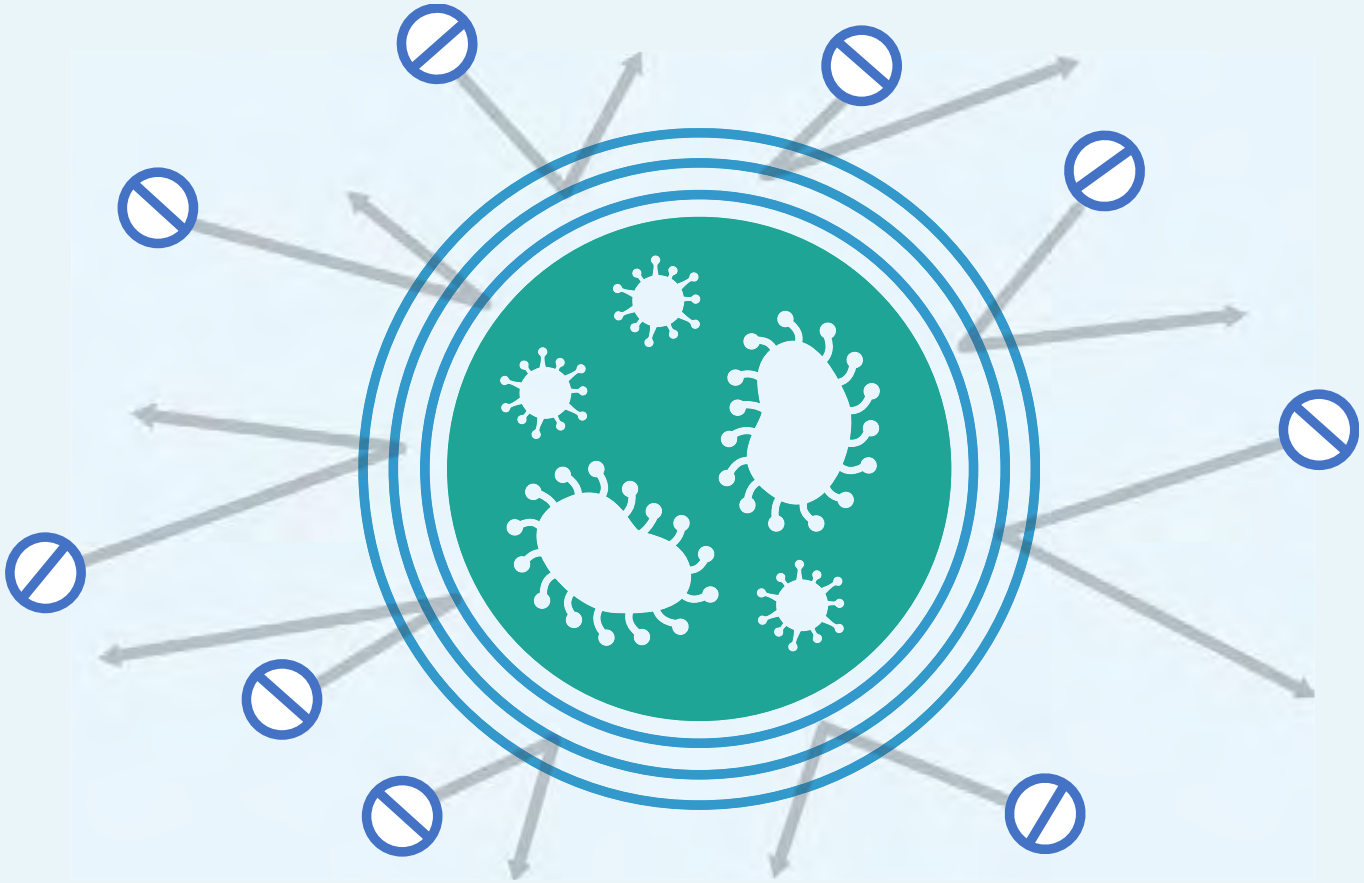
The use of antibiotics is the single most important factor leading to **antibiotic resistance** around the world.

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



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).

THE THREAT OF ANTIBIOTIC RESISTANCE

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

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).

THE THREAT OF ANTIBIOTIC RESISTANCE

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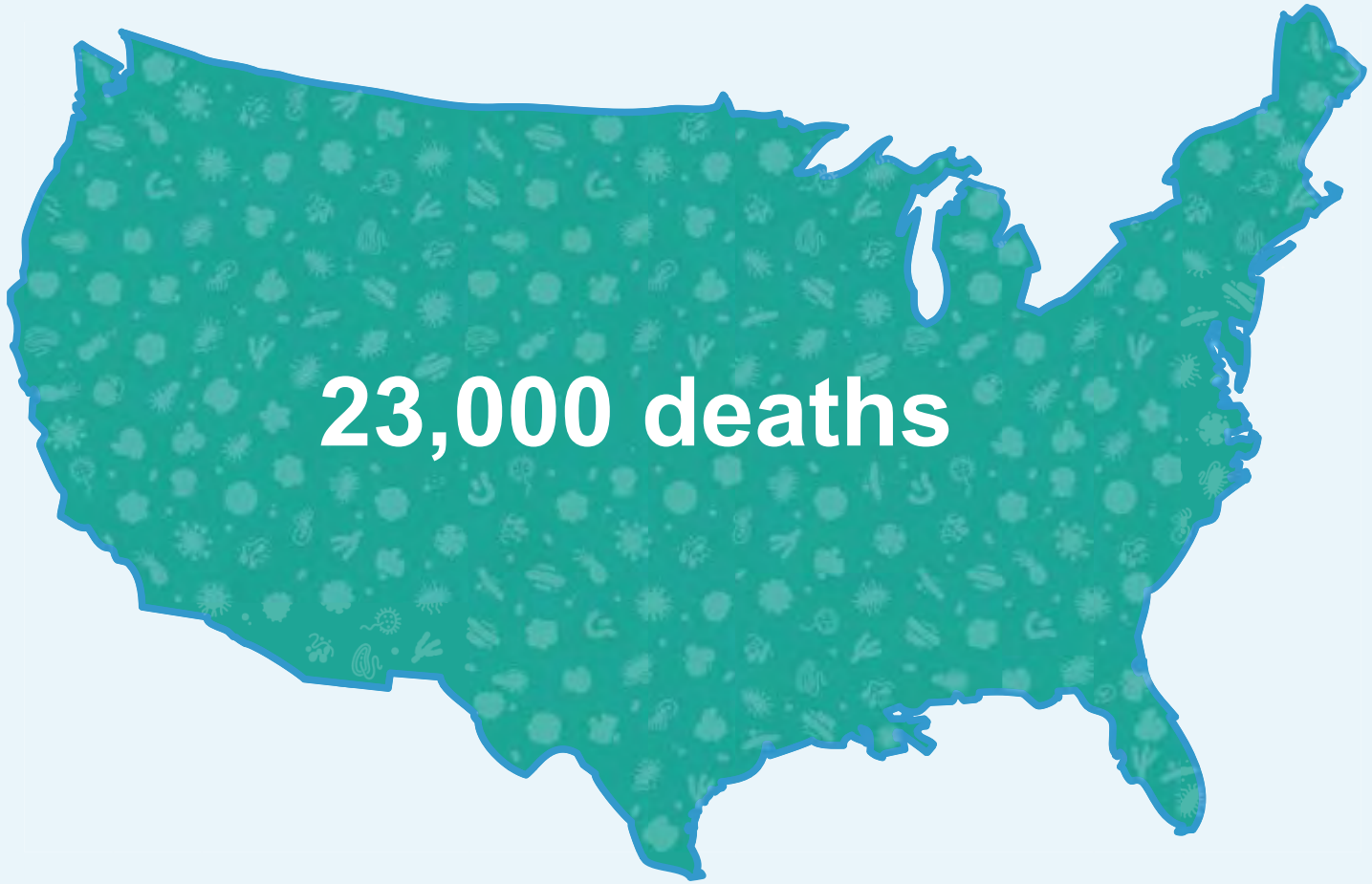
23,0000 deaths
in the U.S. each year
are **caused by drug resistant bacteria**.[3]



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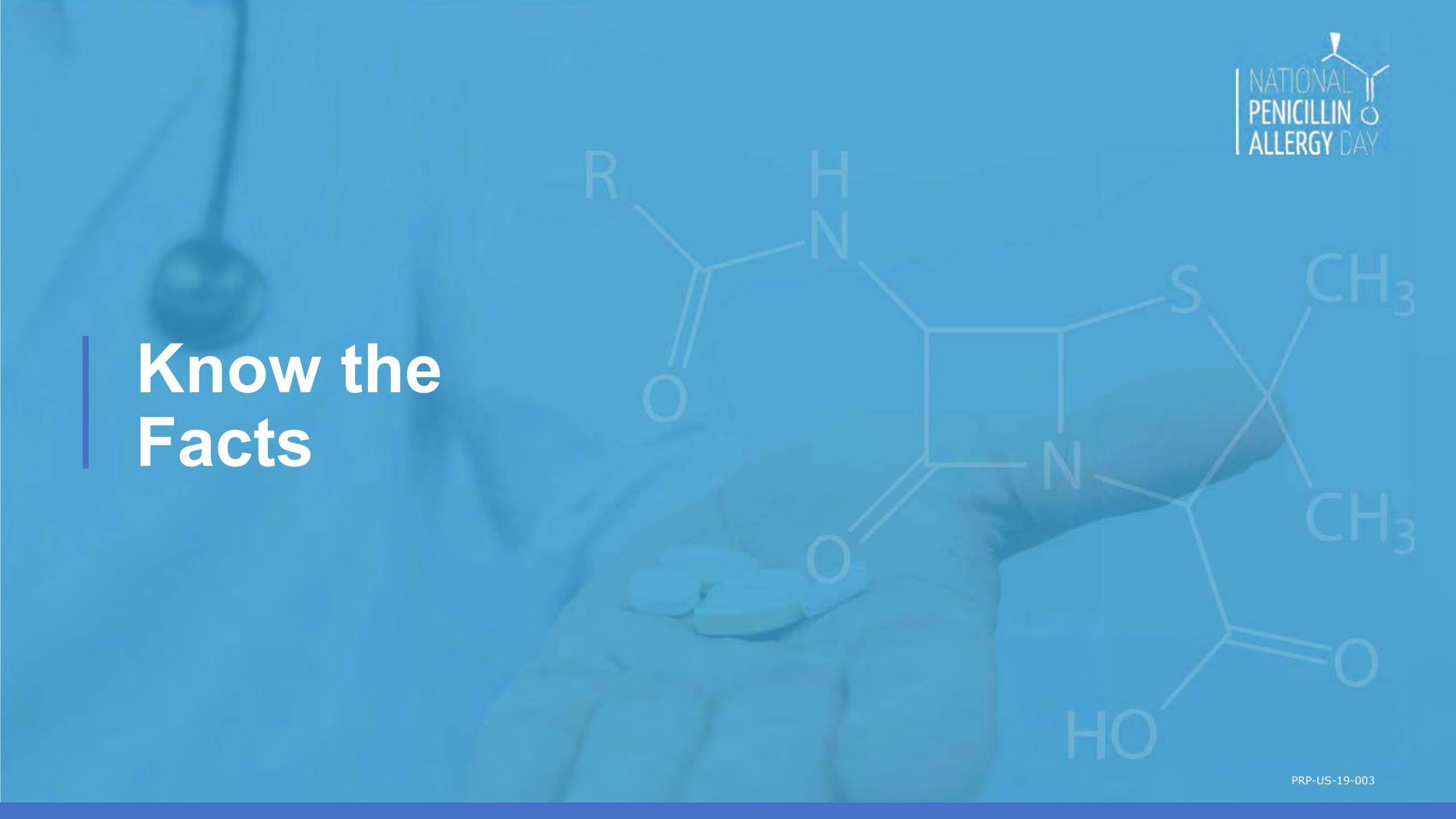
Know the Facts



KNOW THE FACTS

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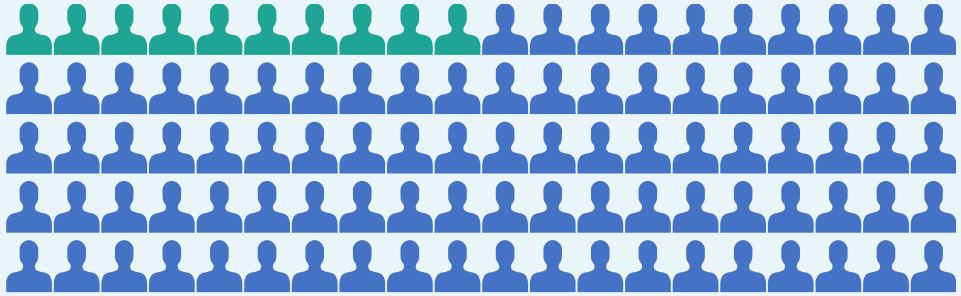
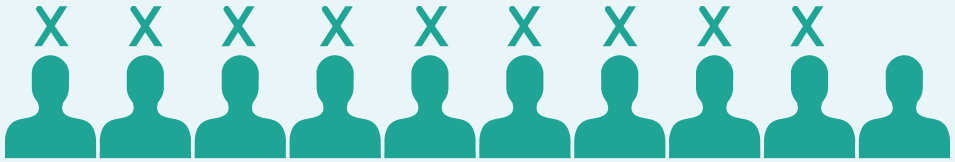
Penicillin allergy is the most commonly reported drug allergy.[6]



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

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KNOW THE FACTS

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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]

1. Jones, B. M., & Bland, C. M. (2017). Penicillin skin testing as an antimicrobial stewardship initiative. American Journal of Health-System Pharmacy, 74(4).

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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]

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

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

2. Centers for Disease Control and Prevention (CDC) Get Smart For Healthcare website https://www.cdc.gov/getsmart/week/downloads/getsmart-penicillin-factsheet.pdf

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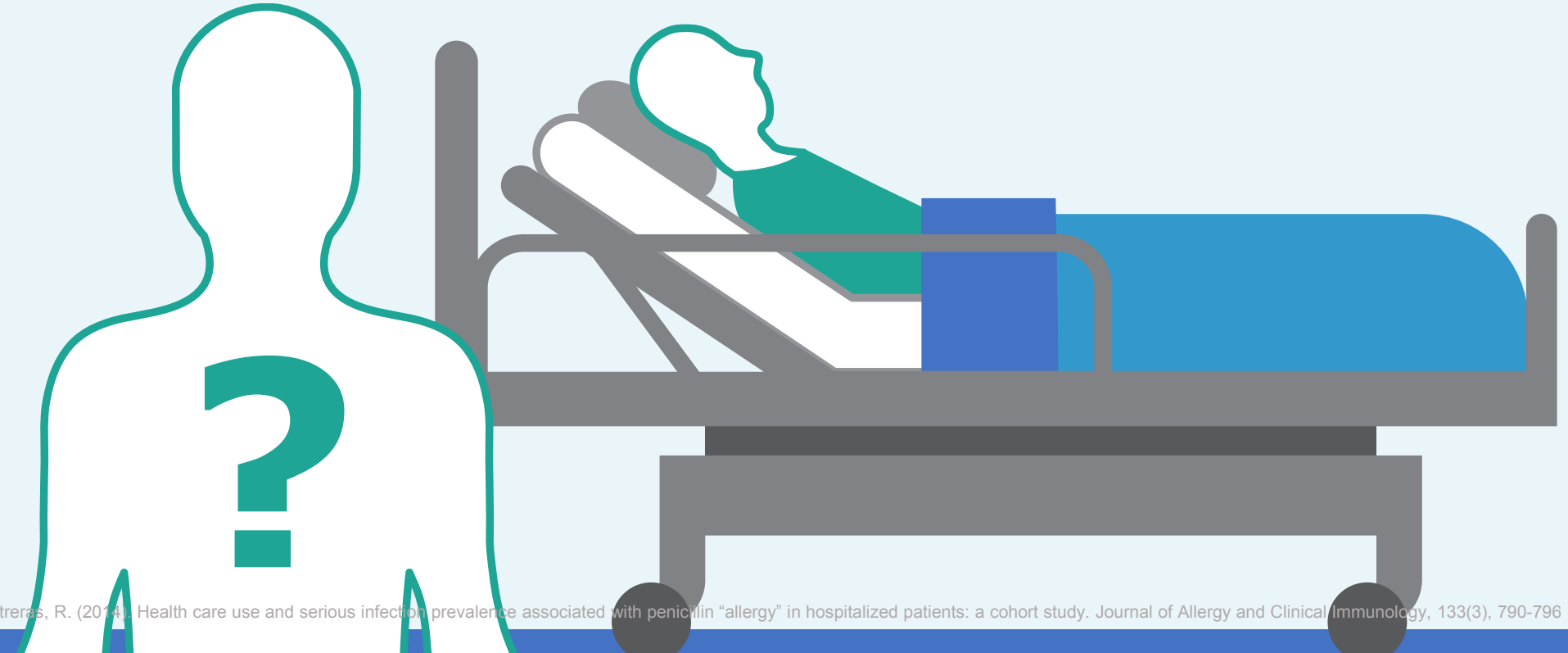
Unverified penicillin allergy in hospitalized patients is associated with **longer hospital stays** and **increased rates** of serious drug resistant infections.[8]



.8. Macy, E., & Contreras, R. (2014). Health care use and serious infection prevalence associated with penicillin “allergy” in hospitalized patients: a cohort study. Journal of Allergy and Clinical Immunology, 133(3), 790-796

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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.[7]

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

KNOW THE FACTS

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

- Antimicrobial resistance[1]
- Overall care costs[1]
- Length of stay[1]
- Mortality rate[1]

1. Jones, B. M., & Bland, C. M. (2017). Penicillin skin testing as an antimicrobial stewardship initiative. American Journal of Health-System Pharmacy, 74(4).

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

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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
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