First US Domestic Case of Concerning Multidrug-Resistant P aeruginosa

A multidrug-resistant strain of Pseudomonas aeruginosa bacteria may be circulating in southern California, researchers reported in Emerging Infectious Diseases.

A New Delhi metallo-β-lactamase (NDM) 1–producing carbapenem-resistant P aeruginosa (CRPA) isolate was found in a patient in the US who had not traveled internationally, according to the recent case report.

This was “the first known domestic case for the NDM-producing Pseudomonas aeruginosa,” study author Shaun Yang, PhD, confirmed in an email to JAMA. The finding is concerning because the NDM strain can be highly resistant to antibiotics including carbapenems and has a high mortality rate.

Genetic sequencing revealed the patient’s isolate was similar to a strain circulating in Italy, but Yang said the precise origin of this strain remains unknown.

“Infection control measures and expanded surveillance efforts, including routine laboratory screening of all CRPA isolates via carbapenemase tests, could curb the spread of this high-risk genotype,” the authors wrote in their report. – Emily Harris

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Note: Source references are available through embedded hyperlinks in the article text online.