

**Call for Cases: Multistate Cluster of Verona Integron-mediated Metallo- $\beta$ -lactamase (VIM)-producing Carbapenem-resistant *Pseudomonas aeruginosa* -- October 27, 2022**

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Brief Summary of Report: The Centers for Disease Control and Prevention (CDC) is investigating a multistate cluster of VIM-producing carbapenem-resistant *Pseudomonas aeruginosa* (VIM-CRPA).

Description: The Centers for Disease Control and Prevention (CDC) is investigating a multistate cluster of VIM-producing carbapenem-resistant *Pseudomonas aeruginosa* (VIM-CRPA). In addition to demonstrating carbapenem resistance, isolates in this cluster are not susceptible to ceftazidime or cefepime; the subset of isolates that underwent antimicrobial susceptibility testing for ceftolozane-tazobactam were also not susceptible to this agent. Isolates in this cluster are ST 1203, harbor *bla*VIM-80 and *bla*GES-9 (a combination not previously observed in the United States) and are closely related by whole genome sequencing (WGS) analysis.

As of October 25, 2022, 34 isolates from 32 case-patients in 6 jurisdictions (CA, CT, NM, NY, UT, WA) have been identified; 28 isolates are part of 4 facility clusters. Dates of specimen collection are from May 2022 to present. Isolates have been identified from clinical cultures of sputum, urine, wounds, blood, and comess, and from rectal swabs collected for surveillance. These specimens were collected in both outpatient and inpatient healthcare settings. There are no known epidemiological links between patients from different states. Investigations to identify common exposures among facilities with clusters of cases are underway.

When *P. aeruginosa* are identified that are resistant to carbapenems (imipenem, meropenem, or doripenem) and not susceptible to cefepime or ceftazidime, clinical laboratories should consider submitting these isolates for carbapenem resistance mechanism testing. Carbapenem resistance mechanism testing is available through the Antimicrobial Resistance Laboratory Network. Due to the current multistate cluster, clinical laboratories that identify VIM-CRPA should save the isolate and report it to public health partners for potential further characterization. To discuss submission of isolates for mechanism testing or VIM-CRPA isolates for further characterization, reach out to your health department's healthcare-associated infections contact (<https://www.cdc.gov/hai/state-based/index.html>) or email [haioutbreak@cdc.gov](mailto:haioutbreak@cdc.gov) for assistance.

Category: Disease/Condition: Biological (Bacterial) | Antimicrobial Resistance | Multidrug-Resistant *Pseudomonas Aeruginosa*

Type of Cases: Human

Number of Cases: Estimated  
Confirmed: 34  
Deaths: 1

Cause/Agent: VIM-producing *Pseudomonas aeruginosa*

Setting: Health Care Facility

Location: Alabama, Alaska, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, District of Columbia, Florida, Georgia, Hawaii, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, New York City, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming, American Samoa, Commonwealth of the Marshall Islands, Commonwealth of the Northern Mariana Islands, Federated States of Micronesia, Guam, Palau, Puerto Rico, US Virgin Islands

Public Health Actions Taken: Investigation in Progress

**Status Information**

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