



TOMÁS J. ARAGÓN, M.D., Dr.P.H
Director and State Public Health Officer

State of California—Health and Human Services Agency
California Department of Public Health



GAVIN NEWSOM
Governor

Call for Cases: Multistate Cluster of Verona Integron-mediated Metallo- β -lactamase (VIM)-producing Carbapenem-resistant *Pseudomonas aeruginosa*

November 2022

On October 27, 2022, the Centers for Disease Control and Prevention (CDC) issued a call for cases through the Epidemic Information Exchange (*Epi-X*), for a multistate cluster of VIM-producing carbapenem-resistant *Pseudomonas aeruginosa* (VIM-CRPA) under investigation with state and local public health departments. 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 sequence type (ST)1203, harbor *bla*_{VIM-80} and *bla*_{GES-9} carbapenemase genes (a combination not previously observed in the US), and are closely related by whole genome sequencing (WGS) analysis.

As of October 25, 2022, 34 isolates from 32 case-patients in six states (CA, CT, NM, NY, UT, WA) have been identified; 28 isolates are part of four facility clusters, including a cluster of four isolates associated with an eye clinic in CA. Dates of specimen collection are from May 2022 to present. Isolates have been identified from clinical cultures of sputum, urine, wounds, blood, and corneas, 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.

In response, the CDPH Healthcare-Associated Infections (HAI) Program in consultation with CDC, is requesting that laboratories identifying VIM-CRPA in a specimen collected on or after January 1, 2022, submit available isolates for further characterization to the CDPH Microbial Diseases Laboratory (MDL) via their local public health laboratory, and notify their local health department and the HAI Program at HAIProgram@cdph.ca.gov. See the MDL [Expanded Carbapenemase Testing Services FAQ Update](#) (PDF) (www.cdph.ca.gov/Programs/CID/DCDC/CDPH%20Document%20Library/MDL_Expanded-Carbapenemase_Testing_FAQ-Sheet.pdf) and [Submission Instructions and Forms](#) (www.cdph.ca.gov/Programs/CID/DCDC/Pages/MDLSubmissionInstructionsandForms.aspx) for guidance on submitting isolates to MDL via your local public health laboratory using Form AST. Isolates already tested by a public health laboratory do not need to be resubmitted unless specifically requested.

In addition, laboratories prospectively identifying CRPA not susceptible to cefepime, ceftazidime, or ceftolozane-tazobactam in a specimen, should consider performing or accessing carbapenem resistance mechanism testing for these isolates.¹ Public health testing is available on a limited basis; please reach out to your local public health laboratory for additional guidance.

Thank you for your collaboration. Please direct any questions about this call for cases to:
HAIProgram@cdph.ca.gov.

¹ Vallabhaneni, S. et al. (2021). Antimicrobial Susceptibility Profiles To Predict the Presence of Carbapenemase Genes among Carbapenem-Resistant *Pseudomonas aeruginosa* Isolates. *J Clin Microbiol*, 59(6),e02874-20. doi.org/10.1128/JCM.02874-20

