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NEW MEXICO HEALTH ALERT NETWORK (HAN) ALERT

Clusters of Carbapenem Resistant Pseudomonas aeruginosa Eye Infections In Multiple States

January 10, 2023

Background: The Centers for Disease Control and Prevention (CDC) is investigating multiple reports of carbapenem-resistant *Pseudomonas aeruginosa* (CRPA) eye infections, which may have a common source. A total of 13 cases of CRPA eye infections from four states (including 11 cases associated with 2 clusters in 2 states) have been reported to CDC; specimen collection dates range from May 17 to December 13, 2022. Among the 11 patients for which information is available, infection types included keratitis and endophthalmitis. All 11 patients have underlying eye disease and reported the use of medicated eye drops and/or artificial tears prior to their infection. To date, five patients have reported vision loss in the affected eye. Isolates harbor the Verona integron-encoded metallo-β-lactamase (VIM), a carbapenem resistance mechanism that is uncommon in the United States.

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 that have undergone whole genome sequencing are related to isolates in a large multistate outbreak of a unique VIM-producing CRPA strain associated with other infection types (e.g., pneumonia, urinary tract, wound, and bloodstream infections) and from a variety of healthcare settings (e.g., nursing homes, acute care hospitals, and outpatient clinics). Isolates in the national cluster and from the eye infections are ST 1203, harbor bla_{VIM-80} and bla_{GES-9} (a combination not previously observed in the United States).

Recommendations for Clinicians: Please report any CRPA eye infections with specimen collection dates since May 1, 2022, to the New Mexico Department of Health (NMDOH) by calling (505)827-0006 or faxing case information to (505)827-0013; health departments are collaborating with CDC to identify potential sources of these infections. For CRPA identified prospectively, please ask clinical laboratories to save the isolate for further characterization at the public health laboratory. Questions can be directed to the health department's healthcare-associated infections contact Marla.Sievers@doh.nm.gov

Additional Resources:

https://www.cdc.gov/drugresistance/pdf/threats-report/pseudomonas-aeruginosa-508.pdf

<u>New Mexico Health Alert Network</u>: To register for the NM Health Alert Network, please visit the following site https://nm.readyop.com/fs/4cjZ/10b2</u> Please fill out the registration form completely and click Submit at the bottom of the page, to begin receiving Important health alerts, advisories, and updates.

<u>Please Note</u> that our system also utilizes text messaging to notify members of important health information. Due to FCC Regulation changes that are designed to decrease the amount of unwanted spam text messages sent each year to citizens, please save, this phone number (855) 596-1810 as the "New Mexico Health Alert Network" default phone number for your account used for text messages on the mobile device(s) you register with us.