

2/2/2023

\* NOTICE: This health alert provides written guidance for health care professionals and others who may need to take action to prevent or control a notifiable condition. It is not intended to provide guidance for the general public.

## UPDATED RECOMMENDATIONS FOR: Multistate Cluster of VIM- and GES-producing Carbapenem resistant Pseudomonas aeruginosa associated with Artificial Tears

### Action Requested:

#### **Recommendations for Healthcare Providers**

- Immediately discontinue using EzriCare Artificial Tears pending additional guidance from CDC and FDA.
- Advise patients who used EzriCare Artificial Tears to monitor for signs and symptoms of infection. Perform culture and antimicrobial susceptibility testing when clinically indicated.
- Healthcare providers treating patients for keratitis or endophthalmitis should ask patients if they have used EzriCare Artificial Tears. Providers should consider performing culture and antimicrobial susceptibility testing to help guide therapy if patients report use of this product.
- Healthcare providers treating VIM-GES-CRPA infections should consult with a specialist knowledgeable in the treatment of antibiotic-resistant bacteria to determine the best treatment option. VIM-GES-CRPA isolates associated with this outbreak are extensively drug-resistant. Isolates that underwent susceptibility testing at public health laboratories were not susceptible to cefepime, ceftazidime, piperacillin-tazobactam, aztreonam, carbapenems, ceftazidime-avibactam, ceftolozane-tazobactam, fluoroquinolones, polymyxins, amikacin, gentamicin, and tobramycin. A subset of 3 isolates that underwent antimicrobial susceptibility testing for cefiderocol at clinical laboratories or CDC were susceptible to this agent.
- Place patients infected or colonized with VIM-GES-CRPA and admitted to acute care settings in isolation and use Contact Precautions. For residents of skilled nursing facilities who are infected or colonized with VIM-GES-CRPA, use Enhanced Barrier Precautions if the resident does not have an indication for Contact Precautions.
- At this time, CDC does not recommend testing patients who have used this product and who are not experiencing any signs or symptoms of infection.



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#### **Recommendations for Clinical Laboratories**

- Clinical laboratories that identify P. aeruginosa resistant to imipenem or meropenem are encouraged to perform carbapenem resistance mechanism testing; isolates may also be submitted to the Antimicrobial Resistance Laboratory Network for mechanism testing.
- Laboratories wishing to apply a more specific definition when identifying isolates that might be related to this cluster for mechanism testing could limit testing to carbapenem-resistant P. aeruginosa that are also resistant to cefepime, ceftazidime, and (if tested) ceftazidime-avibactam and ceftolozane-tazobactam.
- Clinical laboratories that identify any carbapenem-resistant P. aeruginosa from an ocular specimen or VIM-CRPA from any specimen source should submit the isolate to the Antimicrobial Resistance Laboratory Network for further characterization. Please reach out to your health department's healthcareassociated infections contact or email haioutbreak@cdc.gov for assistance submitting isolates.

### Recommendations for the General Public

- Discontinue using EzriCare Artificial Tears pending additional guidance from CDC and FDA.
- If patients were advised to use EzriCare Artificial Tears by their healthcare provider, they should follow up with their healthcare provider for an alternative artificial tears product to use.
- Patients who used EzriCare Artificial Tears and who have signs or symptoms of an eye infection, such as discharge from the eye, eye pain or discomfort, redness of the eye or eyelid, feeling of something in the eye, increased sensitivity to light, or blurry vision, should seek timely medical care. At this time, CDC does not recommend testing of patients who have used this product and who are not experiencing any signs or symptoms of infection.

# Background:

As of January 31, 2023, CDC in partnership with state and local health departments identified 55 case-patients in 12 states (CA, CO, CT, FL, NJ, NM, NY, NV, TX, UT, WA, WI) with VIM-GES-CRPA, a rare strain of extensively drug-resistant P. aeruginosa. Patients had a variety of presentations including keratitis, endophthalmitis, respiratory infection, urinary tract infection, and sepsis. Patient outcomes include permanent vision loss resulting from cornea infection, hospitalization, and one death due to systemic infection.



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Isolates in this outbreak are closely related based on analysis of whole genome sequencing (WGS) data. These isolates are not susceptible to cefepime, ceftazidime, piperacillin-tazobactam, aztreonam, carbapenems, ceftazidime-avibactam, ceftolozane-tazobactam, fluoroquinolones, polymyxins, amikacin, gentamicin, and tobramycin; the subset of isolates that underwent antimicrobial susceptibility testing for cefiderocol were susceptible to this agent.

Review of common exposures revealed that most patients, including most patients with eye infections, used artificial tears prior to identification of VIM-GES-CRPA infection or colonization. Patients reported more than 10 brands of artificial tears, and some patients used multiple brands. The majority of patients who used artificial tears reported using EzriCare Artificial Tears, a preservative-free product dispensed in multidose bottles. This was the only common artificial tears product identified across the four healthcare facility clusters. CDC laboratory testing identified the presence of VIM-GES-CRPA in opened EzriCare Artificial Tears bottles from multiple lots; these bottles were collected from patients with and without eye infections in two states. These product-related VIM-GES-CRPA match the outbreak strain. VIM-GES-CRPA recovered from opened bottles could represent either bacterial contamination during use or during the manufacturing process. Testing of unopened bottles of EzriCare Artificial Tears is ongoing to assist in evaluating for whether contamination may have occurred during manufacturing.

## Resources:

Centers for Disease Control HAN Alert 485: https://emergency.cdc.gov/han/2023/pdf/CDC HAN 485.pdf

Outbreak of Extensively Drug-resistant Pseudomonas aeruginosa Associated with Artificial Tears (CDC) <u>https://www.cdc.gov/hai/outbreaks/CRPA-artificial-tears.html</u>

Information about carbapenem resistant organisms from Washington State Department of Health: <u>https://doh.wa.gov/public-health-healthcare-providers/notifiable-</u> conditions/carbapenemresistant-enterobacterales

Instructions on submitting carbapenem resistant organisms to the Washington State Department of Health Public Health Laboratories: <u>https://doh.wa.gov/public-health-health-althcare-providers/public-health-laboratories/arln-lab-test-menu</u> COMMUNICABLE DISEASE CONTROL AND PREVENTION SECTION THURSTON COUNTY PUBLIC HEALTH AND SOCIAL SERVICES DEPARTMENT 412 LILLY RD NE OLYMPIA, WA, 98506-5132 DISEASE REPORTING: (360)786-5470



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#### THANK YOU FOR REPORTING

TO REPORT A NOTIFIABLE CONDITION IN THURSTON COUNTY	
Voice mail for reporting <b>non-immediately reportable</b> conditions (24 hours a day)	Phone: 360-786-5470 Fax: 360-867-2601
<b>Day time immediately reportable conditions –</b> Call detailed information to the 24-hour Notifiable Condition Reporting Line at 360-786-5470. Messages are picked up hourly. If a call back can't wait call 360-867-2500 and ask staff to locate a Communicable Disease staff.	Phone: 360-786-5470
After hours immediately and 24-hour reportable conditions or a public health emergency	Call 1-800-986-9050
No one is available with Thurston County Public Health and condition is <b>immediately notifiable</b>	1-877-539-4344

Communicable Disease Updates are posted online at: http://bit.ly/CDUpdatePHSS