



June 13, 2017

TO: All health care providers and health care facilities in Alameda County, and all laboratories in or serving residents of Alameda County

FROM: Muntu Davis, M.D., M.P.H., Director and Health Officer

RE: Health Officer Order for reporting Carbapenem-Resistant *Enterobacteriaceae* (CRE) and submitting CRE isolates

Background

The Alameda County Public Health Department (ACPHD) is leading critical surveillance efforts to detect, monitor, and control the impact of CRE in our county. CRE are a group of bacteria that are resistant to carbapenem antibiotics and nearly all available antibiotics. They can cause serious illness and death; invasive bloodstream infections are fatal in 40% -50% of cases. CRE was designated by the CDC in 2013 as one of the three most urgent drug resistant threats in the United States. An estimated 9,000 CRE infections cause 600 deaths yearly in the U.S.

CRE is common in other regions of the U.S. and Southern California. Recently, it has emerged in Alameda County and the San Francisco (SF) Bay Area, with cases, clusters, and outbreaks being reported, both in health care settings and the community. CRE are easily transmitted between infected or colonized patients via health care workers and equipment, unless rigorous contact precautions are taken. Of special concern are CRE that produce carbapenemases, enzymes that rapidly destroy carbapenem antibiotics. Carbapenemase-producing CRE (CP CRE) organisms can rapidly spread their drug resistance genes in health care settings.

Since May 2015, ACPHD has requested voluntary reporting of CRE cases from health care facilities and providers. Since then, almost 200 CRE cases have been reported. ACPHD follows up with health care facilities that have cared for CRE patients to ensure that appropriate infection control precautions are implemented to prevent further transmission, and to determine if CRE patient contacts should be screened. ACPHD has also facilitated PCR testing and whole genome sequencing of isolates at the Alameda County Public Health Laboratory (ACPHL) and the California Microbial Diseases Laboratory to determine whether isolates are CP CRE, the drug resistance genes that they possess, and in some situations, their genetic relatedness. This information is critically important for determining the appropriate infection control measures for cases and whether transmission of CRE is occurring in health care settings. **Reporting of CRE cases to ACPHD and submission of CRE isolates to the ACPHL will now be required.**

Additionally, the California Emerging Infections Program (CEIP) will begin a laboratory-based CRE surveillance project this summer, in conjunction with the Centers for Disease Control and Prevention, CDPH, and local health departments. CEIP will coordinate its procedures with ACPHD to minimize duplicate requests for isolates. However, providing data to CEIP does not satisfy the requirements for reporting directly to ACPHD.



Health care providers may be contacted by ACPHD staff requesting additional demographic and clinical information on both provider- and laboratory-reported cases. Disclosures to public health authorities for public health activities without obtaining prior patient consent is permitted under the Health Insurance Portability and Accountability Act (HIPAA) Privacy Rule, 65 F.R. §164.512(b).

For questions about reporting requirements, specimen handling, or for additional information, please contact the Acute Communicable Disease Section at (510) 267-3250 or acutecd@acgov.org. We greatly appreciate your assistance in our joint efforts to protect the health of the residents of Alameda County.

Resources

ACPHD CMR form: <http://www.acphd.org/communicable-disease/disease-reporting-and-control.aspx>

ACPHD CRE specimen submittal instructions: <http://www.acphd.org/cre.aspx>

ACPHD CRE page: <http://www.acphd.org/cre.aspx>

CDPH CRE page and Interfacility Infection Control Transfer form:

<https://archive.cdpn.ca.gov/programs/hai/Pages/Carbapenem-ResistantEnterobacteriaceae.aspx>

CDC CRE page: <https://www.cdc.gov/hai/organisms/cre/>

HEALTH OFFICER ORDER

Effective June 15, 2017, pursuant to my authority under California Health and Safety Code Section 120175 and California Code of Regulations, Title 17, Sections 2500 and 2505, I hereby order health care providers and laboratories to report all CRE cases and positive laboratory results for CRE cases (with specimens collected on or after June 15, 2017), defined as *E. coli*, *Klebsiella* spp, and *Enterobacter* spp that are:

- **resistant to any carbapenem antimicrobial, with a MIC of ≥ 4 $\mu\text{g/ml}$ for doripenem, imipenem, or meropenem; or ≥ 2 $\mu\text{g/ml}$ for ertapenem; OR**
- **documented to produce a carbapenemase, demonstrated using a CDC-accepted test (modified Hodge, Carba-NP, metallo- β -lactamase); OR**
- **demonstrated to possess a carbapenemase gene (such as KPC, NDM, VIM, IMP, OXA-48-type) using a CDC-accepted test (PCR, Whole Genome Sequencing)**

All CRE cases meeting the above definition shall be reported: from all specimen types (both clinical and surveillance cultures), collected from any anatomic site, and submitted by any health care facility type or setting - including, but not limited to, acute care hospitals, long-term acute care hospitals, long-term care facilities, and outpatient settings.

Health care providers shall report CRE cases to ACPHD by faxing a Confidential Morbidity Report (CMR) to 510-273-3744 within one working day of receiving the laboratory diagnosis. The CMR should include (per CCR Title 17, Section 2500):

- Name of the disease (CRE), with the bacterial species identified and if it is known to produce a carbapenemase
- Case's name, address, telephone number, occupation, race/ethnic group, sex, age, and date of birth
- Date of illness onset, if symptomatic



**ALAMEDA COUNTY HEALTH CARE SERVICES AGENCY
PUBLIC HEALTH DEPARTMENT**

Rebecca Gebhart, Interim Director
Muntu Davis, MD, MPH, Director, Health Officer

Division of Communicable Disease Control and Prevention
1000 Broadway, 5th Floor
Oakland, CA 94607

Erica Pan, MD, MPH, Director
Deputy Health Officer
(510) 267-3200
Fax (510) 268-2140

- Date of diagnosis
- Date of death if applicable
- Name, address and telephone number of the person making the report

Health care providers shall include with the CMR a copy of the CRE laboratory test results and the California Department of Public Health (CDPH) Interfacility Infection Control Transfer form, if/when the patient is transferred to another health care facility.

Laboratories shall report CRE cases to ACPHD within one working day of CRE identification and reporting the test results to the ordering provider. Results shall be reported for bacterial culture, antimicrobial susceptibility, carbapenemase production, and specific carbapenemase gene detection. Reports should include (per CCR Title 17, Section 2505):

- Patient name, gender, address, telephone number (if known), and age or date of birth
- Patient identification number
- Ordering health care provider name, address, telephone number
- Specimen accession number or other unique specimen identifier
- Specimen collection date
- Laboratory findings for the test performed
- Date that positive laboratory findings were identified

Additionally, any laboratory that isolates CRE from a patient specimen must submit a culture to the ACPHL if the patient resides in Alameda County; or if the patient's residence is unknown, if the health care facility or provider's office is located in Alameda County.

Laboratories may report by faxing a CMR to 510-273-3744, accompanied by the reports of the test results described above. Laboratories may also report electronically via the California Reportable Disease Information Exchange (CalREDIE) system only if they are able to selectively report only those cases that meet the CRE case definition, and can provide all required data elements electronically.

DURATION OF ORDER: This Order shall remain in effect until rescinded by the Health Officer.