



To: CAHAN San Diego Participants
Date: February 23, 2021
From: Epidemiology and Immunization Services Branch, Public Health Services

Health Advisory Update: Ongoing Risk of Highly Drug-Resistant Infections in Patients Following Hospitalization or Invasive Procedures in Mexico

Key Messages

- Highly drug-resistant infections are being reported in patients following hospitalization or invasive medical procedures in Mexico.
- Recommendations are provided to identify multidrug resistant organisms in patients who have had hospitalizations or invasive procedures outside the United States. Proactive infection control measures will limit the transmission risk from these organisms.
- Providers should report all cases of carbapenemase-producing organisms and any case of a surgical site infection in patients who have recently undergone surgery in foreign medical facilities within one working day to the [Epidemiology Unit](#).

Situation

The California Department of Public Health (CDPH) recently released the attached advisory about the ongoing risk of highly drug-resistant infections in patients following hospitalization or invasive procedures in Mexico.

Background

The Centers for Disease Control and Prevention (CDC) has detected a recent increase in reports of Verona integron-encoded metallo- β -lactamase (VIM)-producing carbapenem-resistant *Pseudomonas aeruginosa* (VIM-CRPA) in patients following hospitalization or invasive medical procedures in Mexico. Three of these VIM-CRPA cases were California residents identified from August to December 2020 after previous procedures in Tijuana or Guadalajara. This included a 58-year-old San Diego woman who had undergone a cholecystectomy at a healthcare facility in Tijuana.

Recommendations for Providers

- **Advise** patients who are seeking medical care outside the United States to thoroughly research the foreign provider.

- **Be vigilant** for the possibility of resistant infections occurring in patients who have been hospitalized abroad, especially those with a history of hospitalization or invasive procedures in Tijuana or Guadalajara.
- **Perform rectal screening** for carbapenemase-producing organisms when admitting patients who have a history of overnight stays in foreign healthcare facilities.
 - This recommendation applies to patients hospitalized outside the U.S. at any time during the 12 months before their local hospital admission.
 - Consider placing such patients in isolation with contact precautions while awaiting screening results, especially those with infections after invasive procedures in Tijuana or Guadalajara.
- **Obtain cultures** of draining surgical sites, open wounds, or fluids from catheters, and **perform antimicrobial susceptibility testing** to guide treatment of infections in patients who have a history of having undergone invasive procedures.
- **Isolate** with contact precautions patients from whom carbapenemase-producing organisms are obtained, regardless of specimen source or mechanism of resistance. Ask these patients about receipt of healthcare outside the U.S. in the 12 months prior to positive culture.
- **Consult** with an infectious disease specialist when caring for patients with carbapenemase-producing organisms. These infections may be difficult to treat. They may require protracted and complex antibacterial drug combinations and courses. Colonization does not require treatment.
- **Report all cases** of carbapenemase-producing organisms and any case of a surgical site infection in patients who have recently undergone surgery in foreign medical facilities within one working day.
 - A [Confidential Morbidity Report](#) can be faxed to the [County Epidemiology Unit](#) at 858-715-6458 or sent by secure email to epi-cdreporting.hhsa@sdcounty.ca.gov.
 - The Epidemiology Unit can be contacted by calling 619-692-8499 during normal business hours (Monday-Friday 8 AM-5 PM)
- **Test** any carbapenem-resistant *Pseudomonas aeruginosa* or Enterobacteriaceae for VIM and other plasmid-mediated carbapenemases.
 - Mechanism testing for VIM and other plasmid-mediated carbapenemases may be arranged via the [County Public Health Laboratory](#) after approval by the County Epidemiology Unit.
 - Call (619) 692-8500, option 1 or [email](#) for information on proper specimen collection, storage, and transport.
- **Refer** to additional response measures in the [CDC Interim Guidance](#) on containing novel or targeted multidrug-resistant organisms.

Resources

- [CDC Interim Guidance for a Public Health Response to Contain Novel or Targeted Multidrug-resistant Organisms \(MDROs\) – January 2019 Update](#)
- CDC websites: [Carbapenem-resistant Enterobacteriaceae in Healthcare Settings](#), [Clinician Information on Medical Tourism](#), [CDC Traveler Information on Medical Tourism](#)
- CDC toolkit: [Facility Guidance for Control of Carbapenem-resistant Enterobacteriaceae \(CRE\) – November 2015 Update](#)
- CDPH website: [Healthcare-Associated Infections Program](#)

CAHAN San Diego

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Ongoing Risk of Highly Drug-Resistant Infections in Patients Following Hospitalization or Invasive Procedures in Mexico

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The California Department of Public Health (CDPH) and local public health partners are alerting healthcare providers of a recent increase in reports of VIM-producing carbapenem-resistant *Pseudomonas aeruginosa* (VIM-CRPA) in patients following hospitalization or invasive medical procedures in Mexico for routine healthcare visits, medical emergencies, and medical tourism. Since our November 2019 Health Advisory describing an initial cluster of five VIM-CRPA cases with similar exposure from August to October 2019, there have been three additional reports of VIM-CRPA identified in California from August to December 2020. These patients reported undergoing invasive procedures in Guadalajara and Tijuana, Mexico. The most recent case was identified in December 2020; the patient reported having plastic surgery at a Tijuana-area healthcare facility in October 2020.

The CDPH Healthcare-Associated Infections (HAI) Program recommends healthcare providers be vigilant for the possibility of VIM-CRPA and other multidrug-resistant organisms (MDRO) in patients following hospitalization or invasive procedures in Mexico. To identify and control the spread of these pathogens in California, the HAI Program recommends the following strategies to healthcare facilities:

- When caring for patients who have a history of hospitalization or invasive procedures in Mexico, obtain cultures, perform antimicrobial susceptibility testing to guide treatment, and test any carbapenem-resistant bacteria for VIM and other plasmid-mediated carbapenemases. VIM-CRPA are highly resistant and difficult to treat, requiring protracted and complex antibacterial drug combinations and courses; consult with an infectious disease specialist for treatment guidance.
- Consider colonization screening for patients who have reported receiving healthcare outside of the United States during the 12 months prior to their hospitalization in the US.
- For patients identified with VIM-CRPA, inquire about receipt of healthcare in Mexico or anywhere outside of the United States, including hospitalization or invasive procedures in the prior 12 months.
- Implement important containment strategies for VIM-CRPA and other MDRO:
 - Place patients on Contact precautions and in a single-bed room, whenever possible.
 - Perform hand hygiene before donning personal protective equipment (PPE), after doffing PPE, and before and after patient contact.
 - Routinely clean and disinfect healthcare surfaces and shared medical equipment using an Environmental Protection Agency (EPA)-approved hospital-grade disinfectant.
 - Perform colonization screening on any epidemiologically-linked patients (e.g., roommates prior to implementation of transmission-based precautions or patients exposed to common medical device or instrument)

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- Monitor adherence to infection prevention practices (<https://www.cdph.ca.gov/Programs/CHCQ/HAI/Pages/MonitoringAdherenceToHCPracticesThatPreventInfection.aspx>)
- Communicate VIM-CRPA or other MDRO status to a receiving healthcare facility at time of patient transfer.
- Report any cases of VIM-CRPA and other healthcare-associated unusual or highly-resistant organisms to your local health department and the CDPH HAI Program at HAIProgram@cdph.ca.gov.

Carbapenemase mechanism testing for CRPA and other carbapenem-resistant organisms is available through some local public health laboratories and the CDPH Microbial Diseases Laboratory. To prioritize testing of CRPA isolates for carbapenemase testing, please submit CRPA resistant to imipenem, meropenem, or doripenem by standard antimicrobial susceptibility methods **and** non-susceptible to cefepime, ceftazidime, or ceftolozane/tazobactam. Colonization testing (screening) for carbapenemase-producing (CP) organisms, including CP-CRPA, is available at no cost through the CDC Antibiotic Resistance Laboratory Network. These services can be accessed through your local health department in consultation with the CDPH HAI Program by contacting HAIProgram@cdph.ca.gov. For more information about VIM-CRPA and investigation and response measures, please visit: https://www.cdph.ca.gov/Programs/CHCQ/HAI/CDPH%20Document%20Library/CRO_Quicksheet_Oct2020.pdf. For more information about MDROs, please visit: <https://www.cdph.ca.gov/Programs/CHCQ/HAI/Pages/AntimicrobialResistanceLandingPage.aspx>