



Philadelphia Department of Public Health
Division of Disease Control

DONALD F. SCHWARZ, MD, MPH
Deputy Mayor, Health & Opportunity
Health Commissioner

NAN FEYLER, JD, MPH
Chief of Staff

CAROLINE C. JOHNSON, MD
Director, Division of Disease Control

Health Advisory

New Carbapenem-Resistant Enterobacteriaceae Warrant Action by Healthcare Providers April 8, 2013

Carbapenem-resistant Enterobacteriaceae (CRE) are untreatable or difficult-to-treat multidrug-resistant organisms that have developed high-levels of resistance to antibiotics including carbapenems (e.g., imipenem, meropenem, etc.). The majority of CRE in the United States identified in the past decade produce a carbapenemase called *Klebsiella pneumoniae* carbapenemase (KPC). However, non-KPC carbapenemases (e.g., New Delhi Metallo- β -lactamase and Verona Integron-mediated Metallo- β -lactamase) are emerging in the United States. Because of increased reports of these multidrug-resistant organisms, CDC and the Philadelphia Department of Public Health (PDPH) are alerting clinicians about the need for additional prevention steps regarding CRE. Key points include:

- While still uncommon, reports of unusual forms of CRE (non-KPC carbapenemase producers) in the United States are increasing. Of the 37 unusual forms of CRE that have been reported in the U.S., the last 15 have been reported since July, 2012.
- Aggressive action is required by healthcare providers to prevent the emergence and spread of these unusual CRE.
- Key elements of CRE prevention are detailed in CDC guidance (see below) and include use of contact precautions
- Because the vast majority of these unusual organisms were isolated from patients who received overnight medical treatment outside of the United States, it is important to characterize CRE in such patients who are subsequently hospitalized in the United States.
- All cases of CRE linked to Long-term Care Facilities should be reported to PDPH at (215) 685-6742.

Recommendations

CDC continues to recommend that facilities follow the CDC guidance for preventing the spread of CRE in healthcare settings). Facilities should:

- Ensure that CRE-infected or -colonized patients are on Contact Precautions.
- Reinforce and evaluate adherence to hand hygiene and Contact Precautions for healthcare personnel who come into contact with the patient (e.g., enter the patient's room).
- Since cultures of clinical specimens will identify only a minority of patients with CRE, screen epidemiologically linked patient contacts for CRE colonization with stool, rectal, or perirectal cultures. At a minimum, this should include persons with whom the CRE patient shared a room, but might also include patients who were treated by shared healthcare personnel.
- Dedicate rooms and staff to CRE patients when possible. It is preferred that staff caring for CRE patients do not also care for non-CRE patients.
- Remove temporary medical devices as soon as they are no longer needed.
- Should the patient be transferred to another facility, ensure that the presence of CRE colonization or infection is communicated to the accepting facility. A transfer form is attached and available at (<https://hip.phila.gov>).

Requested Actions

- Retain CRE isolates from patients who have a history of overnight healthcare treatment outside of the U.S. during the preceding 6 months. Contact PDPH at (215) 685-6742 to coordinate resistance mechanism testing at CDC.
- Notify PDPH at (215) 685-6742 if a patient with CRE is a resident of a Long-term Care Facility, and also notify the facility. PDPH will follow-up to advise the facility on appropriate infection control measures.

Further information about the prevention of CRE transmission is available in CDC's CRE toolkit (<http://www.cdc.gov/hai/organisms/cre/cre-toolkit/index.html>) and on PDPH's health information portal (<https://hip.phila.gov/xv>). Please contact PDPH with any questions (215) 685-6742.

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Philadelphia Department of Public Health

Division of Disease Control • 500 South Broad Street, Philadelphia, PA 19146
215-685-6740 (phone) • 215-686-4514 (after hours) • 215-238-6947 (fax) • www.phila.gov/health/DiseaseControl • hip.phila.gov



Philadelphia Inter-Facility Transfer Form for CRE

Use this form when transferring a resident with a Carbapenem-resistant *Enterobacteriaceae* infection (CRE). Examples include: *E. coli*, *Enterobacter spp.*, and *Klebsiella spp.* For more information on CRE, please visit:

TRANSFERRING FACILITY: Please send this completed form with the EMS transporters

RECEIVING FACILITY: Please provide form to your facility's infection preventionist or Director of Nursing

<p>Resident Name (Last, First, MI): _____</p> <p>DOB: _____</p>
<p>Transferring Facility Name: _____</p> <p>Transferring Facility Contact: _____ Phone: _____</p>
<p><u>CRE Information</u></p> <p>Name of bacteria (genus and species) : _____</p> <p>Date of last documented positive culture for CRE: _____</p> <p>The resident has an active infection with the above organism: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk</p> <p>The resident is colonized with the above organism: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk</p> <p>Location of infection (i.e., body site) : _____</p> <p>Is the patient is currently on antibiotics? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk</p> <p>Is the resident is currently on any precautions? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk</p> <p>If yes, type of precaution:</p> <p><input type="checkbox"/> Contact <input type="checkbox"/> Droplet <input type="checkbox"/> Isolation <input type="checkbox"/> Airborne <input type="checkbox"/> Other: _____</p>
<p>Comments:</p>