




North Carolina Department of Health and Human Services
Division of Public Health

Pat McCrory
Governor

Aldona Z. Wos, M. D.
Ambassador (Ret.)
Secretary DHHS

Laura Gerald, M.D., MPH
State Health Director

February 22, 2013 (2 pages)

To: North Carolina Healthcare Providers
From: Megan Davies, MD, State Epidemiologist 
Re: **Identification and Control of New Carbapenem-Resistant Enterobacteriaceae**

Summary

Carbapenem-Resistant Enterobacteriaceae (CRE) are untreatable or difficult-to-treat multidrug-resistant organisms that are emerging in the United States. Because of increased reports of these multidrug-resistant organisms, CDC and the North Carolina Division of Public Health are alerting clinicians about the need for additional prevention steps regarding CRE. Key points include:

- While uncommon, reports of unusual forms of CRE (e.g., New Delhi Metallo- β -lactamase and Verona Integron-mediated Metallo- β -lactamase) in the United States are increasing. Of the 37 unusual forms of CRE that have been reported in the United States, the last 15 have been reported since July, 2012.
- This increase highlights the need for U.S. healthcare providers to act aggressively to prevent the emergence and spread of these unusual CRE organisms.
- Current CDC guidance includes key elements of CRE prevention (e.g., use of Contact Precautions) in healthcare settings.
- Because the vast majority of these unusual organisms were isolated from patients who received overnight medical treatment outside of the United States, additional measures described on page 2 of this memo and in the attached HAN advisory are now recommended to be taken when such patients are hospitalized in the United States.

CRE in North Carolina

According to CDC definitions, CRE are considered “common” in regions where the majority of healthcare facilities have identified cases, and these facilities regularly have CRE colonized- or infected-patients admitted (e.g., CRE detected at least weekly). CRE are not common in any region of NC according to this definition. However, a recent survey found that CRE had been detected at some point during 2011–2012 in all regions of the state and in approximately half of NC hospitals responding to the survey. To date, no infections with unusual forms of CRE (e.g., New Delhi Metallo- β -lactamase and Verona Integron-mediated Metallo- β -lactamase) have been identified in North Carolina.

www.ncdhhs.gov • www.publichealth.nc.gov • Telephone: 919-733-3421 • Fax: 919-733-0195

Location: 225 N. McDowell • Raleigh, North Carolina 27603-1382

Mailing Address: 1902 Mail Service Center • Raleigh, North Carolina 27699-1902

An Equal Opportunity/Affirmative Action Employer



Recommendations

CDC and the North Carolina Division of Public Health continue to recommend that facilities follow the CDC guidance for preventing the spread of CRE in healthcare settings (<http://www.cdc.gov/hai/organisms/cre/cre-toolkit/index.html>). In addition to that guidance, CDC and the North Carolina Division of Public Health now also recommend the following:

- When a CRE is identified in a patient (infection or colonization) with a history of an overnight stay in a healthcare facility (within the last 6 months) outside the United States, send the isolate to a reference laboratory for confirmatory susceptibility testing and testing to determine the carbapenem resistance mechanism; at a minimum, this should include evaluation for *Klebsiella pneumoniae* carbapenemases (KPC) and New Delhi Metallo- β -lactamase (NDM) carbapenemases. Please contact the North Carolina Division of Public Health epidemiologist on-call (919-733-3419) for assistance arranging this testing.
- For patients admitted to healthcare facilities in the United States after recently being hospitalized (within the last 6 months) in countries outside the United States, consider each of the following:
 - Perform rectal screening cultures to detect CRE colonization.
 - Place patients on Contact Precautions while awaiting the results of these screening cultures.

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>).