

# Carbapenem-Resistant *Enterobacteriaceae* (CRE)

## Investigation FAQ



### **Q: What's new with CRE surveillance?**

**A:** As of January 1, 2016, a new, simpler case definition will be used for CRE case ascertainment purposes - see updated WV Division of Infectious Disease Epidemiology (DIDE) protocol for details (<http://www.dhhr.wv.gov/oeps/disease/AtoZ/documents/cre/cre-protocol.pdf>). In summary, ertapenem will now be included in the carbapenem resistance evaluation and third generation cephalosporins will **no longer** be included in the case ascertainment (see CRE Surveillance Flowchart <http://www.dhhr.wv.gov/oeps/disease/AtoZ/documents/cre/cre-flowchart.pdf>). Isolates that demonstrate production of a carbapenemase (e.g., KPC, NDM, VIM, IMP, OXA-48) by a recognized test (e.g., polymerase chain reaction, metallo- $\beta$ -lactamase test, modified Hodge test, Carba NP) will also be considered a case, even in the absence of carbapenem susceptibility results. If you have any questions about CRE lab results, case ascertainment, case investigation or data entry in WVEDSS, please call DIDE at 304-558-5358 ext 1.

### **Q: Where do laboratories send CRE results?**

**A:** Laboratories should be submitting CRE results to local health department, as outlined in the Reportable Disease Rule (64CSR7 <http://apps.sos.wv.gov/adlaw/csr/readfile.aspx?DocId=25071&Format=PDF>). When CRE became reportable in August 2013, WVEDSS was not ready to accept CRE investigation data from LHDs, so we asked labs to submit results to the state. However, now that WVEDSS is ready, laboratories should submit results to the LHDs and the LHDs should complete the investigations.

### **Q: The specimen listed on the lab report does not come from a sterile site, should I still investigate the case?**

**A:** Yes, for CRE, it does not matter if the specimen comes from a sterile or non-sterile site; if it meets the surveillance case definition, you should complete the investigation and enter the information into WVEDSS.

### **Q: How do I know if the culture was done for clinical or surveillance purposes?**

**A:** If the specimen source was a rectal swab, that is a surveillance culture, if the specimen comes from any other source (i.e. wound, urine, blood, other body fluid) that is a clinical culture.

### **Q: What do I do if a carbapenem susceptibility interpretation is not listed on the lab report?**

#### **Division of Infectious Disease Epidemiology**

350 Capitol St, Room 125, Charleston WV 25301-3715

Phone: 304.558.5358, extension 1 or (800) 423-1271, extension 1; Answering Service: (304) 925-5963

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**A:** Not all laboratories test all four carbapenems. If no carbapenem results are listed on the lab report, please call the testing facility's Infection Preventionist or the microbiologist at the laboratory to obtain that information. Some labs omit certain antibiotic susceptibility results, especially for carbapenems, since they don't want their physicians prescribing those drugs unless absolutely necessary, but the labs should be able to verbally give you the results.

### **Q: Why do I need to interview the patient?**

**A:** Healthcare providers do not always know whether or not a patient resides in, or will be discharged to a long term care facility (LTCF). This public health action will assist in more accurate LTCF exposure assessment and provide an opportunity to educate patients and/or their families on CRE in an effort to reduce potential community transmission of CRE. Patients/family should be encouraged to disclose CRE infection/colonization status to all healthcare providers they interact with.

### **Q: Why do I need to assess healthcare exposures in the 6 months prior to initial CRE diagnosis?**

**A:** CRE surveillance in 2014 identified a higher potential for community transmission than previously anticipated. If you are in a low incidence area, or you notice multiple CRE cases associated with the same healthcare provider/facility, including outpatient providers, you should reach out to the providers to provide information on CRE transmission and prevention in an effort to reduce the spread of CRE. Please consult with DIDE to assist with determining if you have an outbreak.

### **Q: Why do I need to follow up with LTCFs with CRE cases?**

**A:** The CDC 2012 CRE Toolkit (<http://www.cdc.gov/hai/pdfs/cre/CRE-guidance-508.pdf>) explains that colonization with CRE can be prolonged and there is no clear guidance for discontinuation of Contact Precautions in patients who have CRE infections/colonization. Since CRE is associated with high mortality rates (up to 40-50%), preventing transmission among LTCF residents is critical.

Please make sure the LTCF is:

- aware of their resident's CRE status
- taking measures to prevent transmission in their facility (hand hygiene, contact precautions, education of patients/visitors/staff, etc.)

These steps may help prevent CRE outbreaks. The DIDE Initial Assessment for LTCFs Reporting CRE (<http://www.dhhr.wv.gov/oeps/disease/AtoZ/documents/cre/crpk-ltcf.doc>) will help you make sure the LTCF in question is doing what they should to prevent transmission in their facility. If you have any concerns about infection control practices related to CRE patients after conducting the initial assessment, please consult DIDE.

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### **Q: What if the patient only stayed in the LTCF for a short time?**

**A:** The duration of stay does not matter. Even if the facility only had a CRE case for 24 hours, there is still the potential for transmission. Following up with LTCFs with CRE patients is critical to assure they are aware of the appropriate infection control measures and that they have the resources they need to prevent transmission in their facility from the current patient, as well as future CRE cases they may have.

### **Q: What do I do if I receive multiple CRE cases from the same LTCF?**

**A:** If you have already conducted an initial assessment with a particular LTCF and you receive a lab report for another resident in the same LTCF, please do a quick check in with the LTCF:

- Is the same Infection Preventionist (IP) still there?
  - o If not, go through the assessment with the new IP
- Are they aware of this patient's CRE status?
  - o If not, recommend they speak to the facility the patient came from and/or the lab where the testing was done, as appropriate, about MDRO notification
- Did these cases acquire CRE at the LTCF in question (is there evidence of transmission)?
- Do they need anything from Public Health or have questions since last time you spoke?
- Follow up on previous recommendations

Discuss the situation with the IP to try to determine if there is an outbreak in their facility, including their baseline CRE rate and whether or not the cases are epi-linked. If you are concerned that there may be a CRE outbreak in a particular LTCF, please consult DIDE and see the DIDE MDRO Outbreak toolkit <http://www.dhhr.wv.gov/oeps/disease/ob/pages/mdro-outbreaks-ltcf.aspx>.

### **Q: What do I do if I receive multiple CRE labs for known cases?**

**A:** If the lab result reports the **same** organism (i.e. *E. coli*, *Klebsiella pneumoniae*) as reported in the previous investigation, you do not need to open a second (or third, fourth, etc.) CRE investigation in WVEDSS for this patient and you do not need to enter additional labs for known cases. However, you should follow up with the ordering facility's IP to see if that patient is a LTCF resident (they may have moved since the last time you received a lab for them).

- If the patient is in the same LTCF, please do the quick check in outlined in answer to the previous question.
- If the patient is a recent LTCF admission or has moved to a new LTCF, please conduct an initial assessment with the new LTCF.

If the lab result reports a **different** organism than previously identified, you must initiate a new investigation, complete a new CRE report form and enter those results into WVEDSS.

If you have additional questions, please call DIDE at 304-558-5358 ext 1

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