



Division of Public Health HAI Prevention Program
LTC Surveillance Workshop
May–June 2014
MDRO Case Studies

Case 1

6/16: A 70 YO female resident requests a bedside commode and complains of frequent and painful urination. A urine culture is collected via a straight catheter. The resident is afebrile.

6/18: Urine culture is positive for *E. coli*, and antibiotic susceptibility testing (AST) indicates the organism is resistant to imipenem.

What should be reported if you are conducting CRE surveillance?

1. One CRE LabID event.
2. Symptomatic UTI event.
3. Definition of a UTI is not met; therefore, do not report any event.
4. Insufficient information to determine a CRE event.

Rationale: _____

6/21: The resident spikes a fever of 101°F and blood cultures X 2 are collected, which grow out *E. coli*, resistant to imipenem.

What should be reported?

1. One CRE LabID event.
2. No event, a CRE has already been reported for the month for this resident.
3. A positive blood culture.
4. Insufficient information to determine.

Rationale: _____

Case 2

A blood culture is collected from an 84 YO male resident on 5/29 and grows out a CRE *Klebsiella pneumoniae*. A second blood culture is collected 6/2 and also grows out CRE *K. pneumoniae*.

How many CRE LabID events should be reported? _____

Why? _____

Case 3

As the infection preventionist at Sunny Valley Nursing Home, you conduct surveillance for urinary tract infections and CRE laboratory-identified events.

6/2: A 79 YO female is admitted with fever of 101⁰ F. Blood cultures x 2 are collected.

6/3: Resident continues to have fevers and a urine culture is obtained.

6/5: Urine culture results show 10⁵ *E. coli* testing non-susceptible to meropenem.

6/6: Blood culture results also yield *E. coli* testing non-susceptible to meropenem.

What events should be reported for this resident?

1. One CRE LabID event.
2. A SUTI.
3. Two CRE LabID events.
4. A SUTI and two CRE LabID events.

Rationale: _____

If the urine culture collected on 6/3 yielded a CRE *Klebsiella* spp., how many events would be reported for the resident?

1. One CRE LabID event.
2. A SUTI.
3. Two CRE LabID events.
4. A SUTI and two CRE LabID events.

Rationale: _____

Case 4

Identify the LabID events from the following table

Pt	Admit Date	Specimen Collection Date	Source	Lab Result	LabID Event	Explanation
Jack	6/01/12	06/01/12	Stool	CRE <i>E. coli</i>	Y N	
Jack	6/01/12	06/02/12	Blood	CRE <i>E. coli</i>	Y N	
Jack	6/01/12	06/12/12	Blood	CRE <i>E. coli</i>	Y N	
Jack	6/01/12	06/20/12	Blood	negative	Y N	
Jack	6/01/12	07/10/12	Blood	CRE <i>K. oxytoca</i>	Y N	
Jack	6/01/12	07/15/12	Blood	CRE <i>K. oxytoca</i>	Y N	

Case 5

Identify the LabID events from the following table

Pt	Admit Date	Specimen Collection Date	Source	Lab Result	LabID Event	Explanation
Bill	06/15/12	06/16/13	Blood	CRE <i>Klebsiella</i> spp.	Y N	
Bill	06/15/12	06/20/13	Blood	CRE <i>E. coli</i>	Y N	
Bill	07/02/12	07/01/13	Sputum	CRE <i>E. coli</i>	Y N	
Eve	07/02/12	07/06/13	Stool	CRE <i>E.coli</i>	Y N	
Eve	07/02/12	07/10/13	Stool	CRE <i>Klebsiella</i> spp.	Y N	
Helen	06/01/12	06/06/13	Urine	CRE <i>E. coli</i>	Y N	

Total number of CRE LabID events during June 2013 _____

Resident-days during June
2013 _____ 300 _____

CRE rate per 1,000 resident-days during June _____