

Patient ID: \_\_\_\_\_

DEPARTMENT OF HEALTH & HUMAN SERVICES  
CENTERS FOR DISEASE CONTROL AND PREVENTION  
ATLANTA, GA 30333

# 2018 Multi-site Gram-Negative Surveillance Initiative (MuGSI) Healthcare Associated Infection Community Interface (HAIC) Case Report



Patient's Name \_\_\_\_\_ Phone no. (\_\_\_\_) \_\_\_\_\_  
(Last, First, MI)

Address \_\_\_\_\_ MRN \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_ Hospital \_\_\_\_\_

— Patient identifier information is NOT transmitted to CDC —

<b>1. STATE:</b> <input type="checkbox"/> <input type="checkbox"/>	<b>2. COUNTY:</b> _____	<b>3. STATE ID:</b> _____	<b>4a. LABORATORY ID WHERE CULTURE IDENTIFIED:</b> _____	<b>4b. FACILITY ID WHERE PATIENT TREATED:</b> _____
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<b>5. Where was the patient located on the 4<sup>th</sup> calendar day prior to the date of initial culture?</b> <input type="checkbox"/> Private residence <input type="checkbox"/> LTCF Facility ID: _____ <input type="checkbox"/> LTACH Facility ID: _____ <input type="checkbox"/> Homeless <input type="checkbox"/> Incarcerated		<input type="checkbox"/> Hospital Inpatient <b>Was the patient transferred from this hospital?</b> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown Facility ID: _____ <input type="checkbox"/> Other (specify): _____ <input type="checkbox"/> Unknown		<b>6. DATE OF BIRTH:</b> <input type="checkbox"/> <input type="checkbox"/> / <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<b>7a. AGE:</b> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <b>7b. Is age in day/mo/yr?</b> <input type="checkbox"/> Days <input type="checkbox"/> Mos <input type="checkbox"/> Yrs
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<b>8a. SEX:</b> <input type="checkbox"/> Male <input type="checkbox"/> Female	<b>8c. RACE (Check all that apply):</b> <input type="checkbox"/> White <input type="checkbox"/> Black or African American <input type="checkbox"/> American Indian or Alaska Native <input type="checkbox"/> Asian <input type="checkbox"/> Native Hawaiian or Other Pacific Islander <input type="checkbox"/> Unknown	<b>8d. WEIGHT:</b> _____ lbs _____ oz OR _____ kg <input type="checkbox"/> Unknown
<b>8b. ETHNIC ORIGIN:</b> <input type="checkbox"/> Hispanic or Latino <input type="checkbox"/> Not Hispanic or Latino <input type="checkbox"/> Unknown		<b>8e. HEIGHT:</b> _____ ft _____ in OR _____ cm <input type="checkbox"/> Unknown
		<b>8f. BMI (Record only if ht and/or wt is not available):</b> _____ <input type="checkbox"/> Unknown

**9. WAS PATIENT HOSPITALIZED AT THE TIME OF, OR WITHIN 30 CALENDAR DAYS AFTER, INITIAL CULTURE?**  
 Yes  No  Unknown

If yes: **Date of admission** \_\_\_\_\_ **Date of discharge** \_\_\_\_\_

<b>10a. DATE OF INITIAL CULTURE</b> <input type="checkbox"/> <input type="checkbox"/> / <input type="checkbox"/> <input type="checkbox"/> / <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<b>11a. Was the patient in the ICU in the 7 days <i>prior</i> to their initial culture?</b> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
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<b>10b. LOCATION OF CULTURE COLLECTION:</b> <b>Hospital Inpatient</b> <input type="checkbox"/> ICU <input type="checkbox"/> Surgery/OR <input type="checkbox"/> Radiology <input type="checkbox"/> Other Unit <input type="checkbox"/> Emergency Room <b>Outpatient</b> <input type="checkbox"/> Clinic/Doctors Office <input type="checkbox"/> Surgery <input type="checkbox"/> Other Outpatient <input type="checkbox"/> Dialysis Center <input type="checkbox"/> Observational Unit/Clinical Decision Unit <input type="checkbox"/> LTCF Facility ID: _____ <input type="checkbox"/> LTACH Facility ID: _____ <input type="checkbox"/> Autopsy <input type="checkbox"/> Unknown	<b>11b. Was the patient in the ICU on the date of or in the 7 days <i>after</i> the initial culture?</b> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
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**12. PATIENT OUTCOME:**  Survived  Died  Unknown

If survived, transferred to:  
 Private residence  
 LTCF Facility ID: \_\_\_\_\_  
 LTACH Facility ID: \_\_\_\_\_  
 Unknown  
 Other (specify): \_\_\_\_\_

If died, date of death:  
 /  /

**Was the organism cultured from a normally sterile site or urine, ≤ calendar day 7 before death?**  
 Yes  No  Unknown

Public reporting burden of this collection of information is estimated to average 20 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to CDC/ATSDR Information Collection Review Office, 1600 Clifton Road NE, MS D-74, Atlanta, Georgia 30329; ATTN: PRA (0920-0978).

**13a. ORGANISM ISOLATED FROM INITIAL NORMALLY STERILE SITE OR URINE:**  
 Carbapenem-resistant:  
 *Enterobacteriaceae* (CRE):  
 *Escherichia coli*  
 *Enterobacter cloacae*  
 *Enterobacter aerogenes*  
 *Klebsiella pneumoniae*  
 *Klebsiella oxytoca*  
 *A. baumannii* (CRAB)

**13b. Was the initial culture polymicrobial?**  
 Yes  No  Unknown

**13c. Was the initial isolate tested for carbapenemase?**  
 Yes  
 No  
 Laboratory Not Testing  
 Unknown

**If yes, what testing method was used** (check all that apply):  
 Automated Molecular Assay (specify): \_\_\_\_\_  
 CarbaNP  E Test  
 PCR  Modified Hodge Test (MHT)  
 Other (specify): \_\_\_\_\_  
 Unknown

**If tested, what was the testing result?**  
 Positive  
 Negative  
 Indeterminate  
 Unknown

**14. INITIAL CULTURE SITE:**  
 Blood  Joint/synovial fluid  
 CSF  Bone  
 Pleural fluid  Urine  
 Peritoneal fluid  Other normally sterile site \_\_\_\_\_  
 Pericardial fluid \_\_\_\_\_

**URINE Cultures ONLY:**  
**14a. Was the urine collected through an indwelling urethral catheter?**  
 Yes  
 No  
 Unknown

**URINE Cultures ONLY:**  
**14b. Record the colony count**  
 \_\_\_\_\_

**URINE Cultures ONLY:**  
**14c. Signs and Symptoms associated with urine culture.**  
 Please indicate if any of the following symptoms were reported during the 5 day time period including the 2 calendar days before through the 2 calendar days after the date of initial culture.  
 Then go to question 14d.

None  Unknown  
 Costovertebral angle pain or tenderness  Frequency  
 Dysuria  Suprapubic tenderness  
 Fever [temperature ≥ 100.4 °F (38 °C)]  Urgency

**Symptoms for patients ≤ 1 year of age only:**  
 Apnea  
 Bradycardia  
 Lethargy  
 Vomiting

**URINE Cultures ONLY:**  
**14d. Was a blood culture positive in the 3 calendar days before through the 3 calendar days after the initial urine culture for the same MuGSI organism?**  
 Yes  
 No  
 Unknown

**15. Was the same organism (Q13a) cultured from a different sterile site or urine in the 30 days after the date of initial culture (of this current episode)?**  
 Yes  No  Unknown

**If yes, source** (check all that apply):  
 Blood  Joint/synovial fluid  
 CSF  Bone  
 Pleural fluid  Urine  
 Peritoneal fluid  Other normally sterile site \_\_\_\_\_  
 Pericardial fluid \_\_\_\_\_

**16. Enterobacteriaceae ONLY:**  
**Were cultures of sterile site(s) or urine positive in the 30 days prior to the date of initial culture, for a DIFFERENT organism (Q13a)?**  
 Yes  No  Unknown  NA

**If yes, source** (check all that apply):  
 Blood  Joint/synovial fluid  
 CSF  Bone  
 Pleural fluid  Urine  
 Peritoneal fluid  Other normally sterile site \_\_\_\_\_  
 Pericardial fluid \_\_\_\_\_

**If yes, indicate organism type and associated State ID for the incident closest to the date of initial culture:**

Organism	State ID
<i>Escherichia coli</i>	
<i>Enterobacter cloacae</i>	
<i>Enterobacter aerogenes</i>	
<i>Klebsiella pneumoniae</i>	
<i>Klebsiella oxytoca</i>	

**16a. A. baumannii Cultures ONLY:**  
**Were cultures of OTHER sterile site(s) or urine positive in the 30 days prior to the date of initial culture, for another A. baumannii?**  
 Yes  No  Unknown  NA

**If yes, source** (check all that apply):  
 Blood  Joint/synovial fluid  
 CSF  Bone  
 Pleural fluid  Urine  
 Peritoneal fluid  Other normally sterile site \_\_\_\_\_  
 Pericardial fluid \_\_\_\_\_

**If yes, State ID for the organism closest to the date of initial culture:** \_\_\_\_\_

**16b. A. baumannii Cultures ONLY:**  
**Did the patient have a sputum culture positive for CRAB in the 30 days prior to the date of culture (Day 1)?**  
 Yes  No  Unknown  NA

**17a. Was this patient positive for the SAME organism in the year prior to the date of the initial culture (Q10a):**  
 Yes  No (GO TO Q17c)  Unknown (GO TO Q17c)

**17b. If yes, specify date of culture and State ID for the first positive culture in the year prior:**  
 □□ / □□ / □□□□  
 State ID: \_\_\_\_\_

**17c. Enterobacteriaceae ONLY:**  
**Was this patient positive for a MuGSI Enterobacteriaceae in the year prior to the date of initial culture (Q10a)?**  
 Yes  No (GO TO Q18)  Unknown (GO TO Q18)  NA (GO TO Q18)

17d. If yes, specify organism, date of culture and State ID for the first positive *Enterobacteriaceae* culture in the year prior to the date of initial culture (Q10a):

Carbapenem-resistant *Enterobacteriaceae* (CRE):

- Escherichia coli*
- Enterobacter cloacae*
- Enterobacter aerogenes*
- Klebsiella pneumoniae*
- Klebsiella oxytoca*

Date of Culture:

□□ / □□ / □□□□

State ID: \_\_\_\_\_

18. Susceptibility Results: (please complete the table below based on the information found in the indicated data source). Shaded antibiotics are required to have the MIC entered into the MuGSI-CM system, if available.

Antibiotic	Data Source		Medical Record		Microscan		Vitek		Phoenix		Kirby-Bauer		E-test	
	MIC	Interp	MIC	Interp	MIC	Interp	MIC	Interp	MIC	Interp	Zone Diam	Interp	MIC	Interp
Amikacin														
Amoxicillin/Clavulanate														
Ampicillin														
Ampicillin/Sulbactam														
Aztreonam														
Cefazolin														
CEFEPIME														
CEFOTAXIME														
CEFTAZIDIME														
CEFTRIAZONE														
Cephalothin														
Ciprofloxacin														
COLISTIN														
DORIPENEM														
ERTAPENEM														
Gentamicin														
IMIPENEM														
Levofloxacin														
MEROPENEM														
Moxifloxacin														
Nitrofurantoin														
Piperacillin/Tazobactam														
POLYMYXIN B														
TIGECYCLINE														
Tobramycin														
Trimethoprim-sulfamethoxazole														

19. TYPES OF INFECTION ASSOCIATED WITH CULTURE(S) (check all that apply):  None  Unknown

- |  |   |  |   |
|--|---|--|---|
| <input type="checkbox"/> Abscess, not skin                   | <input type="checkbox"/> Decubitus/pressure ulcer | <input type="checkbox"/> Pneumonia                   | <input type="checkbox"/> Surgical site infection (internal) |
| <input type="checkbox"/> AV fistula/graft infection          | <input type="checkbox"/> Empyema                  | <input type="checkbox"/> Pyelonephritis              | <input type="checkbox"/> Traumatic wound                    |
| <input type="checkbox"/> Bacteremia                          | <input type="checkbox"/> Endocarditis             | <input type="checkbox"/> Septic arthritis            | <input type="checkbox"/> Urinary tract infection            |
| <input type="checkbox"/> Bursitis                            | <input type="checkbox"/> Epidural Abscess         | <input type="checkbox"/> Septic emboli               | <input type="checkbox"/> Other _____                        |
| <input type="checkbox"/> Catheter site infection (CVC)       | <input type="checkbox"/> Meningitis               | <input type="checkbox"/> Septic shock                |   |
| <input type="checkbox"/> Cellulitis                          | <input type="checkbox"/> Osteomyelitis            | <input type="checkbox"/> Skin abscess                |   |
| <input type="checkbox"/> Chronic ulcer/wound (not decubitus) | <input type="checkbox"/> Peritonitis              | <input type="checkbox"/> Surgical incision infection |   |

20. UNDERLYING CONDITIONS (check all that apply):  None  Unknown

- |  |   |   |
|--|---|---|
| <input type="checkbox"/> AIDS/CD4 count < 200        | <input type="checkbox"/> Cystic Fibrosis                    | <input type="checkbox"/> Myocardial Infarct                   |
| <input type="checkbox"/> Alcohol abuse               | <input type="checkbox"/> Decubitus/Pressure Ulcer           | <input type="checkbox"/> Neurological Problems                |
| <input type="checkbox"/> Chronic Liver Disease       | <input type="checkbox"/> Dementia/Chronic Cognitive Deficit | <input type="checkbox"/> Obesity or Morbid Obesity            |
| <input type="checkbox"/> Chronic Pulmonary Disease   | <input type="checkbox"/> Diabetes                           | <input type="checkbox"/> Peptic Ulcer Disease                 |
| <input type="checkbox"/> Chronic Renal Insufficiency | <input type="checkbox"/> Hemiplegia/Paraplegia              | <input type="checkbox"/> Peripheral Vascular Disease (PVD)    |
| <input type="checkbox"/> Chronic Skin Breakdown      | <input type="checkbox"/> HIV                                | <input type="checkbox"/> Premature Birth                      |
| <input type="checkbox"/> Congestive Heart Failure    | <input type="checkbox"/> Hematologic Malignancy             | <input type="checkbox"/> Solid Tumor (non metastatic)         |
| <input type="checkbox"/> Connective Tissue Disease   | <input type="checkbox"/> IVDU                               | <input type="checkbox"/> Spina bifida                         |
| <input type="checkbox"/> Current Smoker              | <input type="checkbox"/> Liver failure                      | <input type="checkbox"/> Transplant Recipient                 |
| <input type="checkbox"/> CVA/Stroke                  | <input type="checkbox"/> Metastatic Solid Tumor             | <input type="checkbox"/> Urinary Tract Problems/Abnormalities |

**21. RISK FACTORS OF INTEREST (check all that apply):**  None  Unknown

- Culture collected  $\geq$  calendar day 3 after hospital admission
- Hospitalized within year before date of initial culture:  
 If yes, enter mo/yr  /  OR  Unknown  
 If known, prior hospital ID: \_\_\_\_\_
- Surgery within year before date of initial culture
- Current chronic dialysis:  Peritoneal  Hemodialysis  Unknown  
 Hemodialysis Access:  AV fistula/graft  CVC  Unknown
- Residence in LTCF within year before date of initial culture  
 If known, facility ID: \_\_\_\_\_
- Admitted to a LTACH within year before initial culture date  
 If known, facility ID: \_\_\_\_\_

- Central venous catheter in place on the day of culture (up to time of culture) or at any time in the 2 calendar days prior to the date of culture
- Urinary catheter in place on the day of culture (up to time of culture) or at any time in the 2 calendar days prior to the date of culture  
**If checked, indicate all that apply:**  
 Indwelling Urethral Catheter  Suprapubic Catheter  
 Condom Catheter  Other: \_\_\_\_\_
- Any OTHER indwelling device in place on the day of culture (up to time of culture) or at any time in the 2 calendar days prior to the date of culture  
**If checked, indicate all that apply:**  
 ET/NT Tube  Gastrostomy Tube  NG Tube  
 Tracheostomy  Nephrostomy Tube  Other: \_\_\_\_\_
- Patient traveled internationally in the two months prior to the date of initial culture.  
**Country:** \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_  
 Patient was hospitalized while visiting country (ies) listed above

**SURVEILLANCE OFFICE USE ONLY**

<p><b>22. Was case first identified through audit?</b></p> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown	<p><b>23. CRF status:</b></p> <input type="checkbox"/> Complete <input type="checkbox"/> Pending <input type="checkbox"/> Chart unavailable	<p><b>24. Date reported to EIP site:</b></p> <div style="text-align: center;"> <input type="checkbox"/><input type="checkbox"/> / <input type="checkbox"/><input type="checkbox"/> / <input type="checkbox"/><input type="checkbox"/><input type="checkbox"/><input type="checkbox"/><input type="checkbox"/> </div>	<p><b>25. SO initials:</b></p> <hr style="border: 0; border-top: 1px solid black; margin: 5px 0;"/>
<p><b>26. Comments:</b></p> <hr style="border: 0; border-top: 1px solid black; margin: 5px 0;"/> <hr style="border: 0; border-top: 1px solid black; margin: 5px 0;"/> <hr style="border: 0; border-top: 1px solid black; margin: 5px 0;"/> <hr style="border: 0; border-top: 1px solid black; margin: 5px 0;"/> <hr style="border: 0; border-top: 1px solid black; margin: 5px 0;"/>			