



## 2024 Multi-site Gram-Negative Surveillance Initiative (MuGSI) Healthcare-Associated Infections Community Interface (HAIC) Case Report

NOTE: Enter all dates as mm/dd/yyyy

Form Approved  
OMB No. 0920-0978

|   |  |   |                  |   |  |
|---|--|---|------------------|---|--|
| PATIENT'S NAME: _____   |  |   | PHONE NO.: _____ |   |  |
| ADDRESS: _____  |  |   |                  | MRN: _____  |  |
| ADDRESS TYPE: _____   |  |   | HOSPITAL: _____  |   |  |
| ----Patient Identifier information is not transmitted to CDC----  |  |   |                  |   |  |
| <b>DEMOGRAPHICS</b>   |  |   |                  |   |  |
| 1. STATE: _____   |  | 2a. COUNTY: _____   |                  | 2b. PLANNING REGION: _____  |  |
| 3. STATE ID: _____  |  |   |                  |   |  |
| 4a. LABORATORY ID WHERE INCIDENT SPECIMEN IDENTIFIED: _____   |  |   |                  | 4b. FACILITY ID WHERE PATIENT TREATED: _____  |  |
| 5. DATE OF BIRTH: _____   |  | 7. SEX AT BIRTH:  |                  | 8a. ETHNIC ORIGIN:  |  |
|   |  | Male<br>Female<br>Unknown<br>Check if transgender <input type="checkbox"/>  |                  | Hispanic or Latino<br>Not Hispanic or Latino<br>Unknown   |  |
| 6. AGE: _____<br>Days    Mos    Yrs   |  |   |                  | 8b. RACE: (Check all that apply)  |  |
|   |  |   |                  | American Indian or Alaska Native<br>Asian<br>Black or African American<br>Native Hawaiian or Other Pacific Islander<br>White<br>Unknown   |  |
| 9a. DATE OF INCIDENT SPECIMEN COLLECTION (DISC): _____  |  | 10. ORGANISM:   |                  |   |  |
| 9b. TIME OF DISC: _____   |  | Carbapenem-Resistant <i>Enterobacteriales</i> (CRE)<br><i>Escherichia coli</i><br><i>Klebsiella pneumoniae</i><br><i>Klebsiella oxytoca</i><br><i>Klebsiella aerogenes</i><br><i>Enterobacter cloacae</i> |                  |   |  |
|   |  | Extended-Spectrum Beta-Lactamase-producing <i>Enterobacteriales</i> (ESBL-E)<br><i>Escherichia coli</i><br><i>Klebsiella pneumoniae</i><br><i>Klebsiella oxytoca</i>                                      |                  | Carbapenem-Resistant <i>A. baumannii</i> (CRAB)<br>Invasive <i>Escherichia coli</i> (IEC) (not CRE or ESBL-E)   |  |
| 11. SPECIMEN COLLECTION SITE(S):  |  |   |                  |   |  |
| Blood<br>Bone<br>Bronchoalveolar lavage (CRAB only, complete Q23c)<br>CSF<br>Internal body site (specify): _____  |  | Muscle<br>Peritoneal fluid<br>Pericardial fluid<br>Pleural fluid<br>Joint/synovial fluid<br>Sputum (CRAB only, complete Q23c)<br>Tracheal aspirate (CRAB only, complete Q23c)                             |                  | Urine (complete 22a-22c)<br>Wound (specify): _____ (CRAB only)<br>Other LRT site (specify): _____ (CRAB only, complete Q23c)<br>Other normally sterile site (specify): _____  |  |
| 12. LOCATION OF SPECIMEN COLLECTION:  |  |   |                  | 13. WHERE WAS THE PATIENT LOCATED ON THE 3RD CALENDAR DAY BEFORE THE DISC?  |  |
| <b>OUTPATIENT</b><br>Facility ID: _____<br><br>Emergency room<br>Clinic/Doctor's office<br>Dialysis center<br>Surgery<br>Observational/Clinical decision unit<br>Other outpatient   |  | <b>INPATIENT</b><br>Facility ID: _____<br><br>ICU<br>OR<br>Radiology<br>Other inpatient   |                  | <b>LTCF</b><br>Facility ID: _____<br><br><b>LTACH</b><br>Facility ID: _____<br><br><b>Autopsy</b><br><b>Other (Specify):</b><br><div style="border: 1px solid black; width: 100px; height: 40px; margin: 5px;"></div> Unknown |  |
|   |  |   |                  | Private residence<br>LTCF<br>Facility ID: _____<br><br>Hospital inpatient<br>Facility ID: _____<br><br>Was the patient transferred from this hospital?<br>Yes    No    Unknown  |  |
|   |  |   |                  | LTACH<br>Facility ID: _____<br><br>Homeless<br>Incarcerated<br>Other (specify):<br><div style="border: 1px solid black; width: 100px; height: 40px; margin: 5px;"></div> Unknown  |  |
| 14. WAS THE PATIENT HOSPITALIZED ON THE DAY OF OR IN THE 29 CALENDAR DAYS AFTER THE DISC?    Yes    No    Unknown   |  |   |                  |   |  |
| IF YES, DATE OF ADMISSION: _____  |  |   |                  |   |  |
| 15a. WAS THE PATIENT IN AN ICU IN THE 7 DAYS BEFORE THE DISC?    Yes    No    Unknown   |  |   |                  |   |  |
| IF YES, DATE OF ICU ADMISSION: _____ OR    Date unknown   |  |   |                  |   |  |
| 15b. WAS THE PATIENT IN AN ICU ON THE DAY OF INCIDENT SPECIMEN COLLECTION OR IN THE 6 DAYS AFTER THE DISC?  |  |   |                  |   |  |
| Yes    No    Unknown  |  |   |                  |   |  |
| IF YES, DATE OF ICU ADMISSION: _____ OR    Date unknown   |  |   |                  |   |  |
| Public reporting burden of this collection of information is estimated to average 28 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-XXXX). |  |   |                  |   |  |



|  |  |  |          |                    |
|--|--|--|----------|--------------------|
| <b>20. RISK FACTORS:</b> <i>(Check all that apply)</i>   |  | None   | Unknown  |                    |
| WAS INCIDENT SPECIMEN COLLECTED 3 OR MORE CALENDAR DAYS AFTER HOSPITAL ADMISSION?  |  | Yes  | No       |                    |
| PREVIOUS HOSPITALIZATION IN THE YEAR BEFORE DISC   |  | Yes  | No       | Unknown            |
| IF YES, DATE OF DISCHARGE CLOSEST TO DISC: _____ OR, DATE UNKNOWN  |  |  |          | Facility ID: _____ |
| OVERNIGHT STAY IN LTCF IN THE YEAR BEFORE DISC:  |  | Yes  | No       | Unknown            |
| OVERNIGHT STAY IN LTACH IN THE YEAR BEFORE DISC:   |  | Yes  | No       | Unknown            |
| SURGERY IN THE YEAR BEFORE DISC:   |  | Yes  | No       | Unknown            |
| INVASIVE OR DIAGNOSTIC UROLOGIC PROCEDURE IN THE YEAR BEFORE DISC:   |  | Yes  | No       | Unknown            |
| IF YES, CHECK ALL THAT APPLY:      Prostate procedure      Cystoscopy      Other   |  |  |          |                    |
| CURRENT CHRONIC DIALYSIS:  |  | Yes  | No       | Unknown            |
| IF YES, TYPE:      Hemodialysis      Peritoneal      Unknown   |  |  |          |                    |
| IF HEMODIALYSIS, TYPE OF VASCULAR ACCESS:      AV fistula/graft      Hemodialysis central line      Unknown  |  |  |          |                    |
| CENTRAL LINE IN PLACE ON THE DISC (UP TO THE TIME OF COLLECTION), OR AT ANY TIME IN THE 2 CALENDAR DAYS BEFORE DISC:   |  | Yes  | No       | Unknown            |
| Check here if central line in place for > 2 calendar days  |  |  |          |                    |
| URINARY CATHETER IN PLACE ON THE DISC (UP TO THE TIME OF COLLECTION), OR AT ANY TIME IN THE 2 CALENDAR DAYS BEFORE DISC:   |  | Yes  | No       | Unknown            |
| IF YES, CHECK ALL THAT APPLY:  |  |  |          |                    |
| Indwelling Urethral Catheter      Condom Catheter  |  |  |          |                    |
| Suprapubic Catheter      Other (specify): _____  |  |  |          |                    |
| ANY OTHER INDWELLING DEVICE IN PLACE ON THE DISC UP TO THE TIME OF COLLECTION), OR AT ANY TIME IN THE 2 CALENDAR DAYS BEFORE DISC:   |  | Yes  | No       | Unknown            |
| IF YES, CHECK ALL THAT APPLY:  |  |  |          |                    |
| ET/NT Tube      NG Tube      Nephrostomy Tube  |  |  |          |                    |
| Gastrostomy Tube      Tracheostomy      Other (specify): _____   |  |  |          |                    |
| PATIENT TRAVELED INTERNATIONALLY IN THE YEAR BEFORE DISC:  |  | Yes  | No       | Unknown            |
| COUNTRY(IES): _____  |  |  |          |                    |
| PATIENT HOSPITALIZED WHILE VISITING COUNTRY(IES) ABOVE:  |  | Yes  | No       | Unknown            |
| <b>21a. WEIGHT:</b>  |  | <b>21b. HEIGHT:</b>                                |          | <b>21c. BMI:</b>   |
| _____ lbs. _____ oz. OR _____ kg      Unknown  |  | _____ ft. _____ in. OR _____ cm      Unknown       |          | _____      Unknown |
| <b>Complete questions 22a-22c for all MuGSI cases from urine cultures or where UTI or pyelonephritis is marked in question 17a:</b>  |  |  |          |                    |
| <b>22a. WAS THE URINE COLLECTED THROUGH AN INDWELLING URETHRAL CATHETER?</b>   |  | Yes  | No       | Unknown            |
| <b>22b. RECORD THE COLONY COUNT:</b> _____   |  |  |          |                    |
| <b>22c. ASSOCIATED SIGNS AND SYMPTOMS:</b>   |  |  |          |                    |
| 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 DISC. |  |  |          |                    |
| None   | Fever [temperature ≥ 100.4 °F (38 °C)] | <b>Symptoms for patients ≤ 1 year of age only:</b> |          |                    |
| Unknown  | Frequency                              | Apnea  | Lethargy |                    |
| Costovertebral angle pain or tenderness  | Suprapubic tenderness                  | Bradycardia  | Vomiting |                    |
| Dysuria  | Urgency                                |  |          |                    |
| <b>Complete questions 23a-23b ONLY for A. BAUMANNII cases:</b>   |  |  |          |                    |
| <b>23a. DID THE PATIENT HAVE A SPUTUM CULTURE POSITIVE FOR CRAB IN THE 30 DAYS BEFORE THE DISC?</b>  |  | Yes  | No       | Unknown            |
|  |  |  |          | N/A                |
| <b>23b. RISK FACTORS PRIOR TO CRAB DISC:</b> <i>(Check all that apply)</i>   |  |  |          |                    |
| Non-invasive positive pressure ventilation (CPAP or BiPAP) at any time in the 7 calendar days before the DISC  |  |  |          |                    |
| Nebulizer treatment at any time in the 7 calendar days before the DISC   |  |  |          |                    |
| Mechanical ventilation at any time in the 7 calendar days before the DISC  |  |  |          |                    |
| Visited a wound care clinic at any time in the year before the DISC  |  |  |          |                    |
| None of the above  |  |  |          |                    |

**Complete question 23c ONLY for A. BAUMANNII cases from LRT site cultures or for non-LRT cultures where pneumonia is marked in question 17a.**

**23c. CHEST RADIOLOGY FINDINGS:** (Check all that apply)

|  |                                    |                  |                          |
|--|------------------------------------|------------------|--------------------------|
| Not done                                   | Ground glass opacities/infiltrates | Consolidation    | Nodules                  |
| No report available                        | Bronchopneumonia/pneumonia         | Infiltrate       | No evidence of pneumonia |
| Acute respiratory distress syndrome (ARDS) | Cannot rule out pneumonia          | Pleural effusion |                          |
| Air space density/opacity                  | Cavitation                         |                  |                          |

**24a. IS ANTIMICROBIAL USE (IV OR ORAL) IN THE 30 DAYS BEFORE THE DISC DOCUMENTED?** Yes No Unknown

**24b. IF YES, CHECK ALL ANTIMICROBIALS USED IN THE 30 DAYS BEFORE THE DISC:** (Check all that apply) Unknown

|                             |                        |                         |                               |
|-----------------------------|------------------------|-------------------------|-------------------------------|
| Amikacin                    | Ceftazidime            | Fidaxomicin             | Rifaximin                     |
| Amoxicillin                 | Ceftazidime/avibactam  | Fosfomycin              | Tedizolid                     |
| Amoxicillin/clavulanic acid | Ceftizoxime            | Gentamicin              | Telavancin                    |
| Ampicillin                  | Ceftolozane/tazobactam | Imipenem/cilastatin     | Tigecycline                   |
| Ampicillin/sulbactam        | Ceftriaxone            | Levofloxacin            | Tobramycin                    |
| Azithromycin                | Cefuroxime             | Linezolid               | Trimethoprim                  |
| Aztreonam                   | Cephalexin             | Meropenem               | Trimethoprim/sulfamethoxazole |
| Cefadroxil                  | Ciprofloxacin          | Meropenem/vaborbactam   | Vancomycin                    |
| Cefazolin                   | Clarithromycin         | Metronidazole           | IV                            |
| Cefdinir                    | Clindamycin            | Moxifloxacin            | PO                            |
| Cefepime                    | Dalbavancin            | Nitrofurantoin          | Other (specify):              |
| Cefiderocol                 | Daptomycin             | Omadacycline            | _____                         |
| Cefixime                    | Delafloxacin           | Oritavancin             | Other (specify):              |
| Cefotaxime                  | Doripenem              | Penicillin              | _____                         |
| Cefoxitin                   | Doxycycline            | Piperacillin/tazobactam |                               |
| Cefpodoxime                 | Ertapenem              | Polymyxin B             |                               |
| Ceftaroline                 | Eravacycline           | Polymyxin E (colistin)  |                               |

**REMINDER:** Any prior antimicrobial use that is not noted above should be documented in the other (specify) field.

**25a. DID THE PATIENT HAVE A POSITIVE TEST(S) FOR SARS-CoV-2 (MOLECULAR ASSAY, ANTIGEN, OR OTHER VIRAL TEST, EXCLUDING SEROLOGY) IN THE 90 DAYS BEFORE OR DAY OF THE DISC?**

Yes No Unknown

**25b. SPECIMEN COLLECTION DATES FOR POSITIVE TESTS IN THE 90 DAYS BEFORE OR THE DAY OF THE DISC:**

**First positive test:** \_\_\_\_\_ or Date unknown **Most recent positive test:** \_\_\_\_\_ or Date unknown

**25c. COVID-NET CASE ID IN THE YEAR BEFORE OR DAY OF DISC:** \_\_\_\_\_ None or N/A

**26. WAS THE INCIDENT SPECIMEN POLYMICROBIAL?** Yes No Unknown

**27a. WAS THE INCIDENT SPECIMEN TESTED FOR CARBAPENEMASE GENES?** Yes No Laboratory not testing Unknown

**27b. IF YES, WHAT TESTING METHOD WAS USED?** (Check all that apply)

**Non-Molecular Test Methods:**

|   |                           |
|---|---------------------------|
| CarbaNP   | Modified Hodge Test (MHT) |
| Carbapenemase Inactivation Method (CIM)           | RAPIDEC                   |
| CPO Detect  | Other (specify): _____    |
| Disk Diffusion/ROSCO Disk                         | Unknown                   |
| E-test  |                           |
| Modified Carbapenemase Inactivation Method (mCIM) |                           |

**Molecular Test Methods:**

|   |                        |
|---|------------------------|
| Automated Molecular Assay               | Streck ARM-D           |
| Carba-R                                 | Other (specify): _____ |
| Check Points                            |                        |
| MALDI-TOF MS                            | Unknown                |
| Next Generation Nucleic Acid Sequencing |                        |
| PCR                                     |                        |

**27c. IF TESTED, WHAT WAS THE TESTING RESULT?**

**Non-Molecular Test Results:**

Positive  
Indeterminate  
Negative  
Unknown

**Molecular Test Results:**

|   |     |     |     |     |
|---|-----|-----|-----|-----|
| NDM                                       | Pos | Neg | Ind | Unk |
| KPC                                       | Pos | Neg | Ind | Unk |
| OXA (specify): _____                      | Pos | Neg | Ind | Unk |
| VIM                                       | Pos | Neg | Ind | Unk |
| IMP                                       | Pos | Neg | Ind | Unk |
| Other carbapenemase gene (specify): _____ | Pos | Neg | Ind | Unk |

**28a. WAS THE INCIDENT SPECIMEN TESTED FOR ESBL PRODUCTION OR OTHER BETA-LACTAMASE GENES?**

- Yes
- No
- Laboratory not testing
- Unknown

**28b. IF TESTED, WHAT TESTING METHOD WAS USED? (Check all that apply):**

**28c. IF TESTED, WHAT WAS THE RESULT?**

Broth Microdilution (ATl detection)

ESBL well

Expert rule (ATl flag)

Unknown

Broth Microdilution (Manual)

Disk Diffusion

E-test

Molecular test (specify): \_\_\_\_\_

Gene variant (specify): \_\_\_\_\_

Other non-molecular test (specify): \_\_\_\_\_

Pos Neg Ind Unk

Pos Neg Ind Unk

Pos Neg Ind Unk

Pos Neg Ind Unk

Pos Neg Ind Unk

Pos Neg Ind Unk

Pos Neg Ind Unk

Pos Neg Ind Unk

**29. SUSCEPTIBILITY RESULTS:**

Please complete the table below based on the information found in the indicated data source.

No susceptibility data from the medical record are available

| Antibiotic                    | Data source:         | Data source:   | Data source:         | Data source:   | Data source:         | Data source:   |
|-------------------------------|----------------------|----------------|----------------------|----------------|----------------------|----------------|
|                               | MIC or zone diameter | Interpretation | MIC or zone diameter | Interpretation | MIC or zone diameter | Interpretation |
| Amikacin                      |                      |                |                      |                |                      |                |
| Amoxicillin/Clavulanate       |                      |                |                      |                |                      |                |
| Ampicillin                    |                      |                |                      |                |                      |                |
| Ampicillin/Sulbactam          |                      |                |                      |                |                      |                |
| Aztreonam                     |                      |                |                      |                |                      |                |
| Cefazolin                     |                      |                |                      |                |                      |                |
| Cefepime                      |                      |                |                      |                |                      |                |
| Cefiderocol                   |                      |                |                      |                |                      |                |
| Cefotaxime                    |                      |                |                      |                |                      |                |
| Cefoxitin                     |                      |                |                      |                |                      |                |
| Ceftazidime                   |                      |                |                      |                |                      |                |
| Ceftazidime/Avibactam         |                      |                |                      |                |                      |                |
| Ceftolozane/Tazobactam        |                      |                |                      |                |                      |                |
| Ceftriaxone                   |                      |                |                      |                |                      |                |
| Cephalothin                   |                      |                |                      |                |                      |                |
| Ciprofloxacin                 |                      |                |                      |                |                      |                |
| Colistin                      |                      |                |                      |                |                      |                |
| Doripenem                     |                      |                |                      |                |                      |                |
| Doxycycline                   |                      |                |                      |                |                      |                |
| Eravacycline                  |                      |                |                      |                |                      |                |
| Ertapenem                     |                      |                |                      |                |                      |                |
| Fosfomycin                    |                      |                |                      |                |                      |                |
| Gentamicin                    |                      |                |                      |                |                      |                |
| Imipenem                      |                      |                |                      |                |                      |                |
| Imipenem-relebactam           |                      |                |                      |                |                      |                |
| Levofloxacin                  |                      |                |                      |                |                      |                |
| Meropenem                     |                      |                |                      |                |                      |                |
| Meropenem-vaborbactam         |                      |                |                      |                |                      |                |
| Minocycline                   |                      |                |                      |                |                      |                |
| Moxifloxacin                  |                      |                |                      |                |                      |                |
| Nitrofurantoin                |                      |                |                      |                |                      |                |
| Omadacycline                  |                      |                |                      |                |                      |                |
| Piperacillin/Tazobactam       |                      |                |                      |                |                      |                |
| Plazomicin                    |                      |                |                      |                |                      |                |
| Polymyxin B                   |                      |                |                      |                |                      |                |
| Rifampin                      |                      |                |                      |                |                      |                |
| Tetracycline                  |                      |                |                      |                |                      |                |
| Tigecycline                   |                      |                |                      |                |                      |                |
| Tobramycin                    |                      |                |                      |                |                      |                |
| Trimethoprim-sulfamethoxazole |                      |                |                      |                |                      |                |

|  |   |  |  |
|--|---|--|--|
| <p><b>30a. WAS THE CASE FIRST IDENTIFIED THROUGH AN AUDIT?</b></p> <p>Yes<br/>No</p> | <p><b>30b. CRF STATUS:</b></p> <p>Complete<br/>Pending<br/>Chart unavailable after 3 requests<br/>Complete – pending data</p> | <p><b>30c. SO INITIALS:</b></p> <p>_____</p> | <p><b>30d. DATE OF ABSTRACTION:</b></p> <p>_____</p> |
|--|---|--|--|

**30e. COMMENTS:**

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