PATIENT ID: __ __ __ __ __ __ __ __ __ __

DATE REPORTED TO EIP SITE: ___ ___ - ___ ___ - ___ ___ ___ ___

2021 Carbapenem Resistant Enterobacteriaceae (CRE)/ Carbapenem Resistant *A. baumannii* (CRAB)
Multi-site Gram-Negative Surveillance Initiative (MuGSI)
Healthcare-Associated Infections Community Interface (HAIC) Case Report

Form Approved
OMB No. 0920-0978

Patient's Name:			Phone no. ( )
Address:			MRN:
City:	State	ZIP:	Hospital:

----Patient Identifier information is not transmitted to CDC----

DEMOGRAPHICS

1. STATE:	2. COUNTY:	3. STATE ID:	4a. LABORATORY ID WHERE INCIDENT SPECIMEN IDENTIFIED:	4b. FACILITY ID WHERE PATIENT TREATED:
___ ___	_____	__ __ __ __ __ __ __ __ __ __	_____	_____

5. DATE OF BIRTH:
__ __ - __ __ - __ __ __ __

6. AGE: ___ ___ ___
☐ Days ☐ Mos. ☐ Yrs.

7. SEX AT BIRTH:
☐ MALE ☐ FEMALE
☐ Unknown
☐ Check if transgender

8a. ETHNIC ORIGIN:
☐ Hispanic or Latino
☐ Not Hispanic or Latino
☐ Unknown

8b. RACE: (Check all that apply)
☐ American Indian or Alaska Native
☐ Asian
☐ Black or African American
☐ Native Hawaiian or Other Pacific Islander
☐ White
☐ Unknown

9. DATE OF INCIDENT SPECIMEN COLLECTION (DISC):
___ ___ - ___ ___ - ___ ___ ___ ___

10. ORGANISM: ☐ CRE ☐ CRAB

If CRE, select one of the following:
☐ *Escherichia coli* ☐ *Klebsiella aerogenes* ☐ *Klebsiella oxytoca*
☐ *Enterobacter cloacae* ☐ *Klebsiella pneumoniae*

11. INCIDENT SPECIMEN COLLECTION SITE:

☐ Blood
☐ Bone
☐ Bronchoalveolar lavage (*CRAB only, complete Q23c*)
☐ CSF
☐ Internal body site (specify):_____
☐ Muscle
☐ Peritoneal fluid
☐ Pericardial fluid
☐ Pleural fluid
☐ Joint/synovial fluid
☐ Sputum (*CRAB only, complete Q23c*)
☐ Tracheal aspirate (*CRAB only, complete Q23c*)
☐ Urine
☐ Wound (specify):_____ (CRAB only)
☐ Other LRT site (specify):_____ (*CRAB only, complete Q23c*)
☐ Other normally sterile site (specify):_____

12. LOCATION OF SPECIMEN COLLECTION:

☐ **OUTPATIENT:**
Facility ID:_____
☐ Emergency room
☐ Clinic/Doctor's office
☐ Dialysis center
☐ Surgery
☐ Observational/ Clinical decision unit
☐ Other outpatient

☐ **INPATIENT:**
Facility ID:_____
☐ ICU
☐ OR
☐ Radiology
☐ Other inpatient

☐ **LTCF**
Facility ID:_____
☐ **LTACH**
Facility ID:_____
☐ **Autopsy**
☐ **Other (specify):** _____
☐ **Unknown**

13. WHERE WAS THE PATIENT LOCATED ON THE 3RD CALENDAR DAY BEFORE THE DISC?

☐ Private residence
☐ LTCF
Facility ID: _____
☐ Hospital inpatient
Facility ID: _____
Was the patient transferred from this hospital?
☐ Yes ☐ No ☐ Unknown

☐ LTACH
Facility ID: _____
☐ Homeless
☐ Incarcerated
☐ Other (specify):_____
☐ 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

16. PATIENT OUTCOME: ☐ Survived ☐ Died ☐ Unknown

DATE OF DISCHARGE: ___ ___ - ___ ___ - ___ ___ ___ ___ OR
☐ Date unknown ☐ Left against medical advice (AMA)

DATE OF DEATH: ___ ___ - ___ ___ - ___ ___ ___ ___ OR ☐ Date unknown

IF SURVIVED, DISCHARGED TO:
☐ Private residence ☐ LTCF Facility ID:_____ ☐ LTACH Facility ID: _____
☐ Other (specify): _____ ☐ Unknown

ON THE DAY OF OR IN THE 6 CALENDAR DAYS BEFORE DEATH, WAS THE PATHOGEN OF INTEREST ISOLATED FROM A SITE THAT MEETS THE CASE DEFINITION?
☐ Yes ☐ No ☐ Unknown

17a. TYPES OF INFECTION ASSOCIATED WITH CULTURE(S) (Check all that apply): ☐ None ☐ Colonized ☐ Unknown

- ☐ Abscess, not skin
- ☐ AV fistula/graft infection
- ☐ Bacteremia
- ☐ Bursitis
- ☐ Catheter site infection (CVC)
- ☐ Cellulitis
- ☐ Chronic ulcer/wound (not decubitus)
- ☐ Decubitus/pressure ulcer
- ☐ Empyema
- ☐ Endocarditis
- ☐ Epidural abscess
- ☐ Meningitis
- ☐ Osteomyelitis
- ☐ Peritonitis
- ☐ Pneumonia (*CRAB cases, complete Q23c*)
- ☐ Pyelonephritis
- ☐ Septic arthritis
- ☐ Septic emboli
- ☐ Septic shock
- ☐ Skin abscess
- ☐ Surgical incision infection
- ☐ Surgical site infection (internal)
- ☐ Traumatic wound
- ☐ Urinary tract infection
- ☐ Other (specify): _____

17b. RECURRENT UTI ☐ Yes ☐ No ☐ Unknown

17c. WAS THE PATIENT TREATED FOR THE MUGSI ORGANISM? ☐ Yes ☐ No ☐ Unknown

18. UNDERLYING CONDITIONS: (Check all that apply) ☐ None ☐ Unknown

CHRONIC LUNG DISEASE
- ☐ Cystic fibrosis
- ☐ Chronic pulmonary disease

CHRONIC METABOLIC DISEASE
- ☐ Diabetes mellitus
  - ☐ With chronic complications

CARDIOVASCULAR DISEASE
- ☐ CVA/Stroke/TIA
- ☐ Congenital heart disease
- ☐ Congestive heart failure
- ☐ Myocardial infarction
- ☐ Peripheral vascular disease (PVD)

GASTROINTESTINAL DISEASE
- ☐ Diverticular disease
- ☐ Inflammatory bowel disease
- ☐ Peptic ulcer disease
- ☐ Short gut syndrome

IMMUNOCOMPROMISED CONDITION
- ☐ HIV infection
  - ☐ AIDS/CD4 count < 200
- ☐ Primary immunodeficiency
- ☐ Transplant, hematopoietic stem cell
- ☐ Transplant, solid organ

LIVER DISEASE
- ☐ Chronic liver disease
  - ☐ Ascites
  - ☐ Cirrhosis
  - ☐ Hepatic encephalopathy
  - ☐ Variceal bleeding
- ☐ Hepatitis C
  - ☐ Treated, in SVR
  - ☐ Current, chronic

MALIGNANCY
- ☐ Malignancy, hematologic
- ☐ Malignancy, solid organ (non-metastatic)
- ☐ Malignancy, solid organ (metastatic)

NEUROLOGIC CONDITION
- ☐ Cerebral palsy
- ☐ Chronic cognitive deficit
- ☐ Dementia
- ☐ Epilepsy/seizure/seizure disorder
- ☐ Multiple sclerosis
- ☐ Neuropathy
- ☐ Parkinson's disease
- ☐ Other (specify): _____

PLEGIAS/PARALYSIS
- ☐ Hemiplegia
- ☐ Paraplegia
- ☐ Quadriplegia

RENAL DISEASE
- ☐ Chronic kidney disease
  - Lowest serum creatinine: _____mg/DL
  - ☐ Unknown or not done

SKIN CONDITION
- ☐ Burn
- ☐ Decubitus/pressure ulcer
- ☐ Surgical wound
- ☐ Other chronic ulcer or chronic wound
- ☐ Other (specify):_____

OTHER
- ☐ Connective tissue disease
- ☐ Obesity or morbid obesity
- ☐ Pregnant

MUGSI CONDITIONS
- ☐ Urinary tract problems/ abnormalities
- ☐ Premature birth
- ☐ Spina bifida

19. SUBSTANCE USE

SMOKING: (Check all that apply) ☐ None ☐ Unknown
- ☐ Tobacco
- ☐ E-nicotine delivery system
- ☐ Marijuana

ALCOHOL ABUSE:
- ☐ Yes
- ☐ No
- ☐ Unknown

OTHER SUBSTANCES: (Check all that apply) ☐ None ☐ Unknown

	DOCUMENTED USE DISORDER (DUD)/ABUSE:	MODE OF DELIVERY: (Check all that apply)
☐ Marijuana, cannabinoid (other than smoking)	☐ DUD or abuse	☐ IDU ☐ Skin popping ☐ Non-IDU ☐ Unknown
☐ Opioid, DEA schedule I (e.g., heroin)	☐ DUD or abuse	☐ IDU ☐ Skin popping ☐ Non-IDU ☐ Unknown
☐ Opioid, DEA schedule II-IV (e.g., methadone, oxycodone)	☐ DUD or abuse	☐ IDU ☐ Skin popping ☐ Non-IDU ☐ Unknown
☐ Opioid, NOS	☐ DUD or abuse	☐ IDU ☐ Skin popping ☐ Non-IDU ☐ Unknown
☐ Cocaine	☐ DUD or abuse	☐ IDU ☐ Skin popping ☐ Non-IDU ☐ Unknown
☐ Methamphetamine	☐ DUD or abuse	☐ IDU ☐ Skin popping ☐ Non-IDU ☐ Unknown
☐ Other (specify): _____	☐ DUD or abuse	☐ IDU ☐ Skin popping ☐ Non-IDU ☐ Unknown
☐ Unknown substance	☐ DUD or abuse	☐ IDU ☐ Skin popping ☐ Non-IDU ☐ Unknown

DURING THE CURRENT HOSPITALIZATION, DID THE PATIENT RECEIVE MEDICATION ASSISTED TREATMENT (MAT) FOR OPIOID USE DISORDER? ☐ Yes ☐ No ☐ N/A (patient not hospitalized or did not have DUD)

20. RISK FACTORS: (Check all that apply) ☐ 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

Facility ID: _____

OVERNIGHT STAY IN LTACH IN THE YEAR BEFORE DISC: ☐ Yes ☐ No ☐ Unknown

Facility ID: _____

SURGERY IN THE YEAR BEFORE DISC: ☐ Yes ☐ No ☐ Unknown

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 ☐ Suprapubic Catheter

☐ Condom 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 ☐ Gastrostomy Tube ☐ NG Tube

☐ Tracheostomy ☐ Nephrostomy Tube ☐ Other (specify): _____

PATIENT TRAVELED INTERNATIONALLY IN THE YEAR BEFORE DISC: ☐ Yes ☐ No ☐ Unknown

COUNTRY: _____, _____, _____

PATIENT HOSPITALIZED WHILE VISITING COUNTRY(IES) ABOVE: ☐ Yes ☐ No ☐ Unknown

21a. WEIGHT:
_____lbs. _____ oz. OR
_____kg ☐ Unknown

21b. HEIGHT:
_____ft. _____ in. OR
_____cm ☐ Unknown

21c. BMI:
_____
☐ Unknown

Form Approved
OMB No. 0920-0978

URINE CULTURES ONLY:
22a. WAS THE URINE COLLECTED THROUGH AN INDWELLING URETHRAL CATHETER?

☐ Yes ☐ No ☐ Unknown

URINE CULTURES ONLY:
22b. RECORD THE COLONY COUNT: ______________

URINE CULTURES ONLY:
22c. 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 DISC.

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

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

Complete questions 23a-23b ONLY for *A. BAUMANNII* cases:

23a. DID THE PATIENT HAVE A SPUTUM CULTURE POSITIVE FOR CRAB IN THE 30 DAYS BEFORE THE DISC?

☐ Yes ☐ No ☐ Unknown ☐ N/A

23b. RISK FACTORS IN THE 7 DAYS BEFORE THE DISC:

☐ 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

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** ☐ **No report available**
☐ Acute respiratory distress syndrome (ARDS)
☐ Air space density/opacity
☐ Ground glass opacities/infiltrates
☐ Bronchopneumonia/pneumonia
☐ Cannot rule out pneumonia
☐ Cavitation
☐ Consolidation
☐ Infiltrate
☐ Pleural effusion
☐ Nodules

24a. DID THE PATIENT HAVE A POSITIVE TEST(S) FOR SARS-CoV-2 (MOLECULAR ASSAY, SEROLOGY OR OTHER CONFIRMATORY TEST) ON OR BEFORE THE DISC?

☐ Yes ☐ No ☐ Unknown

24b. IF YES, COMPLETE TABLE BELOW:

	Specimen collection date	**Test type**
FIRST positive test for SARS-CoV-2 on or before the DISC:	___ ___ /___ ___/___ ___ ___ ___ ☐ Unknown	☐ Molecular assay ☐ Antigen ☐ Serology ☐ Unknown ☐ Other (specify): ___________
MOST RECENT positive test for SARS-CoV-2 on or before the DISC:	___ ___ /___ ___/___ ___ ___ ___ ☐ Unknown	☐ Molecular assay ☐ Antigen ☐ Serology ☐ Unknown ☐ Other (specify): ___________

24c.COVID-NET CASE ID:______________

24d. NNDSS IDs (please provide at least one of the following when applicable):

Local case ID:______________ Local record ID:______________ State case identifier:______________ Legacy case identifier:______________

CDC 2019-nCOV ID:______________

25. WAS THE INCIDENT SPECIMEN POLYMICROBIAL?

☐ Yes ☐ No ☐ Unknown

26b. IF YES, WHAT TESTING METHOD WAS USED? (Check all that apply):

Non-Molecular Test Methods:

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

Molecular Test Methods:

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

26a. WAS THE INCIDENT SPECIMEN TESTED FOR CARBAPENEMASE GENES?

☐ Yes ☐ No ☐ Laboratory not testing ☐ Unknown

26c. 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

27a. WAS THE INCIDENT SPECIMEN TESTED FOR ESBL PRODUCTION OR OTHER BETA-LACTAMASE GENES?

☐ Yes ☐ No ☐ Laboratory not testing ☐ Unknown

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

	27c. IF TESTED, WHAT WAS THE RESULT?
☐ Broth Microdilution (ATI detection)	
☐ ESBL well	☐ Positive ☐ Negative ☐ Indeterminate ☐ Unknown
☐ Expert rule (ATI flag)	☐ Positive ☐ Negative ☐ Indeterminate ☐ Unknown
☐ Unknown	☐ Positive ☐ Negative ☐ Indeterminate ☐ Unknown
☐ Broth Microdilution (Manual)	☐ Positive ☐ Negative ☐ Indeterminate ☐ Unknown
☐ Disk Diffusion	☐ Positive ☐ Negative ☐ Indeterminate ☐ Unknown
☐ E-test	☐ Positive ☐ Negative ☐ Indeterminate ☐ Unknown
☐ Molecular test (specify):____________	☐ Positive ☐ Negative ☐ Indeterminate ☐ Unknown
☐ Gene variant (specify):____________	
☐ Other non-molecular test (specify):____________	☐ Positive ☐ Negative ☐ Indeterminate ☐ Unknown

28. 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.

Data Source	Medical Record		Microscan		Vitek		Phoenix		Sensititre		Kirby-Bauer		E-test	
Antibiotic	**MIC**	**Interp**	**MIC**	**Interp**	**MIC**	**Interp**	**MIC**	**Interp**	**MIC**	**Interp**	**Zone Diam**	**Interp**	**MIC**	**Interp**
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														
Nitrofurantoin														
Omadacycline														
Piperacillin/Tazobactam														
Plazomicin														
POLYMYXIN B														
Rifampin														
Tetracycline														
TIGECYCLINE														
Tobramycin														
Trimethoprim-sulfamethoxazole														

29a. WAS THE CASE FIRST IDENTIFIED THROUGH AN AUDIT?
☐ Yes
☐ No

29b. CRF STATUS:
☐ Complete
☐ Pending
☐ Chart unavailable after 3 requests

29c. SO INITIALS: _____

29d. DATE OF ABSTRACTION: ___ ___ - ___ ___ - ___ ___ ___ ___

29e. COMMENTS: