PATIENT ID: _____ DATE REPORTED TO EIP SITE: *(mm/dd/yyyy)* _____

2022 Extended-Spectrum Beta-Lactamase (ESBL)-Producing Enterobacteriaceae 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:
Address Type:	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: *(mm/dd/yyyy)*
_____

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): *(mm/dd/yyyy)*
_____

10. ORGANISM:
Extended-Spectrum Cephalosporin-resistant:
○ *Escherichia coli*
○ *Klebsiella pneumoniae*
○ *Klebsiella oxytoca*

11. INCIDENT SPECIMEN COLLECTION SITE:
☐ Blood
☐ Bone
☐ CSF
☐ Internal body site (specify): _____
☐ Joint/synovial fluid
☐ Muscle
☐ Peritoneal fluid
☐ Pericardial fluid
☐ Pleural fluid
☐ Urine
☐ 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: *(mm/dd/yyyy)* _____

15a. WAS THE PATIENT IN AN ICU IN THE 7 DAYS BEFORE THE DISC?
○ Yes ○ No ○ Unknown
IF YES, DATE OF ICU ADMISSION: *(mm/dd/yyyy)* _____ 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: *(mm/dd/yyyy)* _____ OR ☐ Date unknown

16. PATIENT OUTCOME: ○ Survived ○ Died ○ Unknown

DATE OF DISCHARGE: *(mm/dd/yyyy)* _____ OR
○ Date unknown ○ Left against medical advice (AMA)

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

DATE OF DEATH: *(mm/dd/yyyy)* _____ OR ☐ Date 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
- ☐ 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

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

	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: *(mm/dd/yyyy)* _____ 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
- ☐ 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
- ☐ Tracheostomy
- ☐ Gastrostomy Tube
- ☐ Nephrostomy Tube
- ☐ NG Tube
- ☐ 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

21a. WEIGHT:
_____ lbs. _____ oz. OR
_____ kg ☐ Unknown

21b. HEIGHT:
_____ ft. _____ in. OR
_____ cm ☐ Unknown

21c. BMI:
_____
☐ Unknown

URINE CULTURES ONLY:

22. RECORD THE COLONY COUNT:

_____

URINE CULTURES ONLY:

23. 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
- ☐ Unknown
- ☐ Costovertebral angle pain or tenderness
- ☐ Dysuria
- ☐ Fever [temperature ≥ 100.4 °F (38 °C)]
- ☐ Frequency
- ☐ Suprapubic tenderness
- ☐ Urgency

Symptoms for patients ≤ 1 year of age only:

- ☐ Apnea
- ☐ Bradycardia
- ☐ Lethargy
- ☐ Vomiting

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

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, SEROLOGY OR OTHER CONFIRMATORY TEST) IN THE YEAR BEFORE OR DAY OF THE DISC?

○ Yes ○ No ○ Unknown

25b. IF YES, COMPLETE THE TABLE BELOW FOR THE MOST RECENT POSITIVE SARS-COV-2 TEST IN THE YEAR BEFORE OR DAY OF THE DISC:

SPECIMEN COLLECTION DATE	TEST TYPE
_____ ☐ Unknown	☐ Molecular assay ☐ Antigen ☐ Serology ☐ Unknown ☐ Other (specify): _____

25c.COVID-NET CASE ID: _____

25d. 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: _____

26a. WAS THE INCIDENT SPECIMEN POLYMICROBIAL?

○ Yes ○ No ○ Unknown

26b. WAS THE INCIDENT SPECIMEN TESTED FOR ESBL PRODUCTION OR OTHER BETA-LACTAMASE GENES?

- ○ Yes
- ○ No
- ○ Laboratory not testing
- ○ Unknown

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

26d. IF TESTED, WHAT WAS THE RESULT?

☐ Broth Microdilution (ATI detection)	○ Pos	○ Neg	○ Ind	○ Unk
☐ ESBL well	○ Pos	○ Neg	○ Ind	○ Unk
☐ Expert rule (ATI flag)	○ Pos	○ Neg	○ Ind	○ Unk
☐ Unknown	○ Pos	○ Neg	○ Ind	○ Unk
☐ Broth Microdilution (Manual)	○ Pos	○ Neg	○ Ind	○ Unk
☐ Disk Diffusion	○ Pos	○ Neg	○ Ind	○ Unk
☐ E-test	○ Pos	○ Neg	○ Ind	○ Unk
☐ Molecular test (specify): _____	○ Pos	○ Neg	○ Ind	○ Unk
☐ Gene variant (specify): _____				
☐ Other non-molecular test (specify): _____	○ Pos	○ Neg	○ Ind	○ Unk

27. SUSCEPTIBILITY RESULTS:
Please complete the table below based on the information found in the indicated data source.

Antibiotic	Medical Record MIC	Medical Record Interp	Microscan MIC	Microscan Interp	Vitek MIC	Vitek Interp	Phoenix MIC	Phoenix Interp	Sensititre MIC	Sensititre Interp	Kirby-Bauer Zone Diam	Kirby-Bauer Interp	E-test MIC	E-test 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														

28a. WAS THE CASE FIRST IDENTIFIED THROUGH AN AUDIT?

- ○ Yes
- ○ No

28b. CRF STATUS:

- ○ Complete
- ○ Complete-Pending
- ○ Pending
- ○ Chart unavailable after 3 requests

28c. SO INITIALS: _____

28d. DATE OF ABSTRACTION: *(mm/dd/yyyy)* _____

28e. COMMENTS: