



**2019 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
Exp. Date: XX-XX-XXXX

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: _____
5. DATE OF BIRTH: ____ - ____ - ____		7. SEX AT BIRTH: <input type="checkbox"/> MALE <input type="checkbox"/> FEMALE <input type="checkbox"/> Unknown <input type="checkbox"/> Check if transgender	8a. ETHNIC ORIGIN: <input type="checkbox"/> Hispanic or Latino <input type="checkbox"/> Not Hispanic or Latino <input type="checkbox"/> Unknown
6. AGE: _____ <input type="checkbox"/> Days <input type="checkbox"/> Mos. <input type="checkbox"/> Yrs.		8b. RACE: (Check all that Apply) <input type="checkbox"/> American Indian or Alaska Native <input type="checkbox"/> Asian <input type="checkbox"/> Black or African American <input type="checkbox"/> Native Hawaiian or Other Pacific Islander <input type="checkbox"/> White <input type="checkbox"/> Unknown	
9. DATE OF INCIDENT SPECIMEN COLLECTION (DISC): ____ - ____ - ____		10. ORGANISM: Extended-Spectrum Cephalosporin-resistant: <input type="checkbox"/> <i>Escherichia coli</i> <input type="checkbox"/> <i>Klebsiella pneumoniae</i> <input type="checkbox"/> <i>Klebsiella oxytoca</i>	
11. INCIDENT SPECIMEN COLLECTION SITE: <input type="checkbox"/> Blood <input type="checkbox"/> Bone <input type="checkbox"/> CSF <input type="checkbox"/> Internal body site (specify): _____ <input type="checkbox"/> Joint/synovial fluid <input type="checkbox"/> Muscle <input type="checkbox"/> Peritoneal fluid <input type="checkbox"/> Pericardial fluid <input type="checkbox"/> Pleural fluid <input type="checkbox"/> Urine <input type="checkbox"/> Other normally sterile site (specify): _____			
12. LOCATION OF SPECIMEN COLLECTION: <input type="checkbox"/> OUTPATIENT: Facility ID: _____ <input type="checkbox"/> Emergency room <input type="checkbox"/> Clinic/Doctor's office <input type="checkbox"/> Dialysis center <input type="checkbox"/> Surgery <input type="checkbox"/> Observational/Clinical decision unit <input type="checkbox"/> Other outpatient			13. WHERE WAS THE PATIENT LOCATED ON THE 3RD CALENDAR DAY BEFORE THE DISC? <input type="checkbox"/> Private residence <input type="checkbox"/> LTACH <input type="checkbox"/> LTCF <input type="checkbox"/> Hospital inpatient <input type="checkbox"/> Homeless <input type="checkbox"/> Incarcerated <input type="checkbox"/> Other (specify): _____ Was the patient transferred from this hospital? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
14. WAS THE PATIENT HOSPITALIZED ON THE DAY OF OR IN THE 29 CALENDAR DAYS AFTER THE DISC? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown IF YES, DATE OF ADMISSION: ____ - ____ - ____		15a. WAS THE PATIENT IN AN ICU IN THE 7 DAYS BEFORE THE DISC? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown IF YES, DATE OF ICU ADMISSION: ____ - ____ - ____ OR <input type="checkbox"/> Date unknown 15b. WAS THE PATIENT IN AN ICU ON THE DAY OF INCIDENT SPECIMEN COLLECTION OR IN THE 6 DAYS AFTER THE DISC? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown IF YES, DATE OF ICU ADMISSION: ____ : ____ - ____ - ____ OR <input type="checkbox"/> Date unknown	
16. PATIENT OUTCOME: <input type="checkbox"/> Survived <input type="checkbox"/> Died <input type="checkbox"/> Unknown DATE OF DISCHARGE: ____ - ____ - ____ OR <input type="checkbox"/> Date unknown <input type="checkbox"/> Left against medical advice (AMA) DATE OF DEATH: ____ - ____ - ____ OR <input type="checkbox"/> Date unknown IF SURVIVED, DISCHARGED TO: <input type="checkbox"/> Private residence <input type="checkbox"/> LTCF Facility ID: _____ <input type="checkbox"/> LTACH Facility ID: _____ <input type="checkbox"/> Other (specify): _____ <input type="checkbox"/> 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? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown			

Public reporting burden of this collection of information is estimated to average 25 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).



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

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

18. RECURRENT UTI

Yes
 No
 Unknown

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

CHRONIC LUNG DISEASE	IMMUNOCOMPROMISED CONDITION	NEUROLOGIC CONDITION	SKIN CONDITION
<input type="checkbox"/> Cystic fibrosis	<input type="checkbox"/> HIV infection	<input type="checkbox"/> Cerebral palsy	<input type="checkbox"/> Burn
<input type="checkbox"/> Chronic pulmonary disease	<input type="checkbox"/> AIDS/CD4 count < 200	<input type="checkbox"/> Chronic cognitive deficit	<input type="checkbox"/> Decubitus/pressure ulcer
CHRONIC METABOLIC DISEASE	<input type="checkbox"/> Primary immunodeficiency	<input type="checkbox"/> Dementia	<input type="checkbox"/> Surgical wound
<input type="checkbox"/> Diabetes mellitus	<input type="checkbox"/> Transplant, hematopoietic stem cell	<input type="checkbox"/> Epilepsy/seizure/seizure disorder	<input type="checkbox"/> Other chronic ulcer or chronic wound
<input type="checkbox"/> With chronic complications	<input type="checkbox"/> Transplant, solid organ	<input type="checkbox"/> Multiple sclerosis	<input type="checkbox"/> Other (specify): _____
CARDIOVASCULAR DISEASE	LIVER DISEASE	<input type="checkbox"/> Neuropathy	OTHER
<input type="checkbox"/> CVA/Stroke/TIA	<input type="checkbox"/> Chronic liver disease	<input type="checkbox"/> Parkinson's disease	<input type="checkbox"/> Connective tissue disease
<input type="checkbox"/> Congenital heart disease	<input type="checkbox"/> Ascites	<input type="checkbox"/> Other (specify): _____	<input type="checkbox"/> Obesity or morbid obesity
<input type="checkbox"/> Congestive heart failure	<input type="checkbox"/> Cirrhosis	PLEGIAS/PARALYSIS	<input type="checkbox"/> Pregnant
<input type="checkbox"/> Myocardial infarction	<input type="checkbox"/> Hepatic encephalopathy	<input type="checkbox"/> Hemiplegia	MUGSI CONDITIONS
<input type="checkbox"/> Peripheral vascular disease (PVD)	<input type="checkbox"/> Variceal bleeding	<input type="checkbox"/> Paraplegia	<input type="checkbox"/> Urinary tract problems/abnormalities
GASTROINTESTINAL DISEASE	<input type="checkbox"/> Hepatitis C	<input type="checkbox"/> Quadriplegia	<input type="checkbox"/> Premature birth
<input type="checkbox"/> Diverticular disease	<input type="checkbox"/> Treated, in SVR	RENAL DISEASE	<input type="checkbox"/> Spina bifida
<input type="checkbox"/> Inflammatory bowel disease	<input type="checkbox"/> Current, chronic	<input type="checkbox"/> Chronic kidney disease	
<input type="checkbox"/> Peptic ulcer disease	MALIGNANCY	Lowest serum creatinine: _____ mg/DL	
<input type="checkbox"/> Short gut syndrome	<input type="checkbox"/> Malignancy, hematologic		
	<input type="checkbox"/> Malignancy, solid organ (non-metastatic)		
	<input type="checkbox"/> Malignancy, solid organ (metastatic)		

20. SUBSTANCE USE, CURRENT

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

Marijuana/cannabinoid (other than smoking)

Opioid, DEA schedule I (e.g., heroin)

Opioid, DEA schedule II-IV (e.g., methadone, oxycodone)

Cocaine or methamphetamine

Other (specify): _____

Unknown substance

DOCUMENTED USE DISORDER (DUD)/ABUSE:

DUD or abuse

DUD or abuse

DUD or abuse

DUD or abuse

DUD or abuse

DUD or abuse

MODE OF DELIVERY: (Check all that apply)

IDU Skin popping Non-IDU Unknown

IDU Skin popping Non-IDU Unknown

IDU Skin popping Non-IDU Unknown

IDU Skin popping Non-IDU Unknown

IDU Skin popping Non-IDU Unknown

21. 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: _____, _____, _____

22a. WEIGHT: _____ lbs. _____ oz. OR _____ kg Unknown

22b. HEIGHT: _____ ft. _____ in. OR _____ cm Unknown

22c. BMI: _____ Unknown

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



URINE CULTURES ONLY:
23a. RECORD THE COLONY COUNT:

URINE CULTURES ONLY:
23b. 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.

- | | | |
|--|--|--|
| <input type="checkbox"/> None | <input type="checkbox"/> Unknown | Symptoms for patients ≤ 1 year of age only: |
| <input type="checkbox"/> Costovertebral angle pain or tenderness | <input type="checkbox"/> Frequency | <input type="checkbox"/> Apnea |
| <input type="checkbox"/> Dysuria | <input type="checkbox"/> Suprapubic tenderness | <input type="checkbox"/> Bradycardia |
| <input type="checkbox"/> Fever [temperature ≥ 100.4 °F (38 °C)] | <input type="checkbox"/> Urgency | <input type="checkbox"/> Lethargy |
| | | <input type="checkbox"/> Vomiting |

24a. WAS THE INCIDENT SPECIMEN POLYMICROBIAL?

- Yes
 No
 Unknown

24b. WHAT SCREENING/ CONFIRMATORY METHOD WAS USED FOR ESBL IDENTIFICATION?

(Check all that apply): None Unknown

- Broth Microdilution (ATI detection)
 ESBL well
 Expert rule (ATI flag)
 Broth Microdilution (Manual)
 Disk Diffusion
 E-test
 Molecular test (specify): _____
 Other non-molecular test (specify): _____

24c. IF SCREENING/ CONFIRMATORY METHOD WAS USED, WHAT WAS THE RESULT?

- | | | | |
|-----------------------------------|-----------------------------------|--|----------------------------------|
| <input type="checkbox"/> Positive | <input type="checkbox"/> Negative | <input type="checkbox"/> Indeterminate | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Positive | <input type="checkbox"/> Negative | <input type="checkbox"/> Indeterminate | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Positive | <input type="checkbox"/> Negative | <input type="checkbox"/> Indeterminate | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Positive | <input type="checkbox"/> Negative | <input type="checkbox"/> Indeterminate | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Positive | <input type="checkbox"/> Negative | <input type="checkbox"/> Indeterminate | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Positive | <input type="checkbox"/> Negative | <input type="checkbox"/> Indeterminate | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Positive | <input type="checkbox"/> Negative | <input type="checkbox"/> Indeterminate | <input type="checkbox"/> Unknown |

25a. IS ANTIMICROBIAL USE (IV OR ORAL) IN THE 30 DAYS BEFORE THE DISC DOCUMENTED?

- Yes No Unknown

25b. IF YES, CHECK ALL ANTIMICROBIALS USED IN THE 30 DAYS BEFORE THE DISC: (Check all that apply)

- Unknown

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



26. 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		Kirby-Bauer		E-test	
	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												
Meropenem-vaborbactam												
Minocycline												
Doxycycline												
Plazomicin												
Tetracycline												
Rifampin												
Ceftazidime/Avibactam												
Ceftolozane/Tazobactam												
Fosfomycin												
Imipenem-relebactam												

27a. WAS CASE FIRST IDENTIFIED THROUGH AUDIT?

- Yes
- No

27b. CRF STATUS:

- Complete
- Pending
- Chart unavailable after 3 requests

27c. SO INITIALS:

27d. COMMENTS:
