

**A****A**

**CDC's FoodNet Hemolytic Uremic Syndrome (HUS) Surveillance  
Case Report Form**

1A. Case ID	YYYY <sup>Year</sup> XX <sup>Fipscode</sup> 001 <sup>Record</sup>	_____
2A. State ID		_____
3A. FoodNet Person ID (if applicable)		_____
4A. Site		_____
5A. Date entered		____/____/____

**Demographic Information**

*Instructions: Complete the following demographic information as it pertains to the patient diagnosed with HUS.*

6A. Date of Birth	____/____/____
7A. State of Residence	_____
8A. County of residence	_____
9A. Sex	<input type="radio"/> Male <input type="radio"/> Female <input type="radio"/> Unknown
10A. Ethnicity	<input type="radio"/> Hispanic <input type="radio"/> Non-Hispanic <input type="radio"/> Unknown
11A. Race	<input type="radio"/> Black <input type="radio"/> White <input type="radio"/> Asian <input type="radio"/> American Indian / Alaska Native <input type="radio"/> Pacific Islander / Native Hawaiian <input type="radio"/> Multi-Racial <input type="radio"/> Other <input type="radio"/> Unknown

**Clinical Information**

*Instructions: Complete the following by interviewing the attending physician and/or reviewing patient's medical record.*

12A. Is the date of HUS diagnosis known?	<input type="radio"/> yes <input type="radio"/> no
13A. Date of HUS diagnosis?	____/____/____
14A. Did the patient have diarrhea in the 3 weeks before HUS diagnosis?	<input type="radio"/> yes <input type="radio"/> no <input type="radio"/> unknown
<u>if yes</u> 15A. Date of diarrhea onset	____/____/____
16A. Did stools contain visible blood at the time?	<input type="radio"/> yes <input type="radio"/> no <input type="radio"/> unknown
17A. Was diarrhea treated with antimicrobial medications?	<input type="radio"/> yes <input type="radio"/> no <input type="radio"/> unknown
<u>if yes</u> 18A. Types of antimicrobials used to treat diarrhea: (check all that apply)	
	<input type="checkbox"/> Azithromycin (Zithromax, Z-Pak)
	<input type="checkbox"/> Ceftriaxone (Rocephin)
	<input type="checkbox"/> Ciprofloxacin (Cipro)
	<input type="checkbox"/> Levofloxacin (Levaquin)
	<input type="checkbox"/> Metronidazole (Flagyl)
	<input type="checkbox"/> Piperacillin
	<input type="checkbox"/> Tazobactam
	<input type="checkbox"/> Trimethoprim Sulfamethoxazole (Bactrim, Septra)
	<input type="checkbox"/> Vancomycin (Vancocin)
	<input type="checkbox"/> Other _____
	<input type="checkbox"/> Unknown

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### Clinical Information Continued

19A. Did the patient have contact with another person with diarrhea or HUS during the 3 weeks before HUS diagnosis (include daycare, household, etc)?  yes  no  unknown

20A. Was the patient treated with an antimicrobial medication (ANY antibiotic) for any other reason than diarrhea during the 3 weeks before HUS diagnosis?  yes  no  unknown

if yes 21A. Reason treated with antimicrobial \_\_\_\_\_

22A. Types of antimicrobials used to treat conditions other than diarrhea: (check all that apply)

- Azithromycin (Zithromax, Z-Pak)
- Ceftriaxone (Rocephin)
- Ciprofloxacin (Cipro)
- Levofloxacin (Levaquin)
- Metronidazole (Flagyl)
- Piperacillin
- Tazobactam
- Trimethoprim Sulfamethoxazole (Bactrim, Septra)
- Vancomycin (Vancocin)
- Other \_\_\_\_\_
- Unknown

Other medical conditions present during 3 weeks before HUS diagnosis:

23A. Other gastrointestinal illness  yes  no  unknown

24A. Urinary tract infection  yes  no  unknown

25A. Respiratory tract infection  yes  no  unknown

26A. Other acute illness  yes  no  unknown

if yes Describe \_\_\_\_\_

27A. Pregnancy  yes  no  unknown

28A. Kidney disease  yes  no  unknown

29A. Immune compromising condition or medication  yes  no  unknown

if yes 30A. Malignancy  yes  no  unknown

31A. Transplanted organ or bone marrow  yes  no  unknown

32A. HIV infection  yes  no  unknown

33A. Steroid Use (parenteral or oral)  yes  no  unknown

Other  yes  no  unknown

Describe \_\_\_\_\_

### Laboratory values within 7 days before and 3 days after HUS diagnosis

*Instructions: Record the correct unites or convert to the correct units before entering into the HUS database, especially for platelet count (e.g., enter a platelet count of 33,700/mm<sup>3</sup> as 33.7)*

34A. Highest serum creatinine \_\_\_\_\_ mg/dL (suggested range: 0.10-30.00)

35A. Highest serum BUN \_\_\_\_\_ mg/dL (suggested range: 4.0-100.0)

36A. Highest WBC \_\_\_\_\_ K/mm<sup>3</sup> (suggested range: 0.50-125.00)

**A****A****Laboratory Values Continued**

- 37A. Lowest hemoglobin \_\_\_\_\_ g/dL (suggested range: 2.0-30.0)
- 38A. Lowest hematocrit \_\_\_\_\_ % (suggested range: 0.0-100.0)
- 39A. Lowest platelet count \_\_\_\_\_ K/mm<sup>3</sup> (suggested range: 3.0-600.0)
- 40A. Microangiopathic changes  yes  no  unknown  not tested
- Other laboratory findings within 7 days before and 3 days after HUS diagnosis:
- 41A. Blood (or heme) in urine  yes  no  unknown  not tested
- 42A. Protein in urine  yes  no  unknown  not tested
- 43A. RBC in urine by microscopy  yes  no  unknown  not tested

**Epi Information**

*Instructions for Hospital Discharge Data: All records meeting the ICD9-or ICD10-CM codes specified in the surveillance protocol should be reviewed even if the case had already been identified through Active Surveillance in order to obtain potentially missing information. If a case is captured through HDD and was previously identified through the network of practitioners, sites should check that the abstracted information from active surveillance is current and complete. In the event that additional information is available, this should be included in the FoodNet HUS surveillance system. If a discrepancy is identified, the most current information should be used.*

- 44A. How was patient's illness first identified by public health (state or local health department or EIP)?
- Report of HUS case by a physician or service participating in the FoodNet HUS active surveillance network
  - Report of HUS case by a non-participating physician or service
  - Routine STEC infection active surveillance
  - Retrospective review of hospital discharge data
  - Other (please specify) \_\_\_\_\_
  - Unknown
- 45A. Date reported to public health or identified by hospital discharge data review \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_
- 46A. Was hospital discharge data review completed for this case (to verify or supplement information)?  yes  no  unknown
- 47A. Date of HDD (hospital discharge data) review \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_
- 48A. Is this case epidemiologically linked to a confirmed or probable Shiga toxin-producing *E.coli* (STEC) case?  yes  no  unknown
- 49A. Is this case outbreak related?  yes  no  unknown

**Form A Comments, Composite Variables, and Status**

- 50A. Completed by (initials): \_\_\_\_\_
- 51A. Comments \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_
- 55A. Complete?  incomplete  unverified  complete

**B****B**

**CDC's Foodnet Hemolytic Uremic Syndrome Surveillance  
Microbiology Report Form**

*Instructions: Enter the most relevant microbiology tests associated with this HUS case by specimen source. If multiple positive stool specimens were tested, prioritize specimens tested by the SPHL or CDC. Include positive stool with any evidence of STEC, and, if applicable, serum sent to CDC for testing of abxbodies against STEC and/or one other positive specimen if additional results are available. In addition, you will be prompted to enter negative results (if applicable) only for evidence of STEC.*

**Stool Specimen**

1B. Was stool collected?

 yes  no  unknown

2B. Date stool specimen collected

\_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_

3B. State Lab ID:

\_\_\_\_\_

*Instructions: Answer below questions as they pertain to the stool specimen collected at each lab. You will be asked about other specimens in the other pathogens section.*

4B. Questions	Clinical Lab	State or Local PHL	CDC Lab (Federal)
Was this specimen forwarded to the lab?	<input type="radio"/> yes <input type="radio"/> no <input type="radio"/> unk	<input type="radio"/> yes <input type="radio"/> no <input type="radio"/> unk	N/A
Was testing performed at lab?	<input type="radio"/> yes <input type="radio"/> no <input type="radio"/> unk	<input type="radio"/> yes <input type="radio"/> no <input type="radio"/> unk	<input type="radio"/> yes <input type="radio"/> no <input type="radio"/> unk
Was a Shiga toxin test performed? (e.g. PCR, EIA)	<input type="radio"/> yes <input type="radio"/> no <input type="radio"/> unk	<input type="radio"/> yes <input type="radio"/> no <input type="radio"/> unk	N/A
Shiga toxin test result	<input type="radio"/> positive <input type="radio"/> negative	<input type="radio"/> positive <input type="radio"/> negative	<input type="radio"/> positive <input type="radio"/> negative
Shiga toxin type	<input type="radio"/> stx1 <input type="radio"/> stx2 <input type="radio"/> stx1 & stx2 <input type="radio"/> undifferentiated	<input type="radio"/> stx1 <input type="radio"/> stx2 <input type="radio"/> stx1 & stx2 <input type="radio"/> undifferentiated	<input type="radio"/> stx1 <input type="radio"/> stx2 <input type="radio"/> stx1 & stx2 <input type="radio"/> undifferentiated
Was a CIDT for <i>E. coli</i> O157 performed? (e.g. Immunocard Stat)	<input type="radio"/> yes <input type="radio"/> no <input type="radio"/> unk	<input type="radio"/> yes <input type="radio"/> no <input type="radio"/> unk	N/A
CIDT result?	<input type="radio"/> positive <input type="radio"/> negative	<input type="radio"/> positive <input type="radio"/> negative	N/A
Did the test include H7?	<input type="radio"/> yes <input type="radio"/> no <input type="radio"/> unk	N/A	N/A
Was a culture for <i>E. coli</i> O157 performed?	<input type="radio"/> yes <input type="radio"/> no <input type="radio"/> unk	<input type="radio"/> yes <input type="radio"/> no <input type="radio"/> unk	N/A
Was <i>E. coli</i> O157 isolated?	<input type="radio"/> yes <input type="radio"/> no <input type="radio"/> unk	<input type="radio"/> yes <input type="radio"/> no <input type="radio"/> unk	<input type="radio"/> yes <input type="radio"/> no <input type="radio"/> unk
Was a culture for <i>E. coli</i> non-O157 performed?	N/A	<input type="radio"/> yes <input type="radio"/> no <input type="radio"/> unk	N/A
Was <i>E. coli</i> non-O157 isolated?	N/A	<input type="radio"/> yes <input type="radio"/> no <input type="radio"/> unk	<input type="radio"/> yes <input type="radio"/> no <input type="radio"/> unk
O Antigen	N/A	<input type="radio"/> O26 <input type="radio"/> O111 <input type="radio"/> O103 <input type="radio"/> O121 <input type="radio"/> O45 <input type="radio"/> O145 <input type="radio"/> rough <input type="radio"/> und <input type="radio"/> not found	
H Antigen	<input type="radio"/> H7 pos <input type="radio"/> H7 neg <input type="radio"/> non-motile <input type="radio"/> not tested		

5B. Was immunomagnetic separation (IMS) used to identify common STEC serogroups?

 yes  no  unknown

6B. What serogroup(s) did the IMS procedure target? (check all that apply)

 O157  O26  O45  
 O103  O111  O121  
 O145

7B. Was whole genome sequencing (WGS) performed on this isolate? (at state or CDC)

 yes  no  unknown

8B. Sequencing ID:

\_\_\_\_\_

# B



# B

### CDC Serology Tests

9B. Has patient serum or plasma been sent to CDC for testing for antibodies to O157 or other STEC?

yes  no  unknown

10B. Date serology specimen collected?

\_\_\_\_ / \_\_\_\_ / \_\_\_\_

11B. State laboratory ID for serum

\_\_\_\_\_

12B. Was there more than one serology result for this case?

yes  no  unknown

13B. Questions						
LPS type	Titer IgG	Interpretation of IgG		Titer IgM	Interpretation of IgM	
		Positive	Negative		Positive	Negative
<input type="radio"/> O157 <input type="radio"/> O111						
<input type="radio"/> O157 <input type="radio"/> O111						
<input type="radio"/> O157 <input type="radio"/> O111						

### Other Pathogens (co-infections) and Other Specimens

14B. Questions	Clinical Lab	State or Local PHL	CDC Lab (federal)
Were any other pathogens identified?	<input type="radio"/> yes <input type="radio"/> no <input type="radio"/> unk	<input type="radio"/> yes <input type="radio"/> no <input type="radio"/> unk	<input type="radio"/> yes <input type="radio"/> no <input type="radio"/> unk
Specimen source	Same stool used for STEC testing	Same stool used for STEC testing	Same stool used for STEC testing
Test type	<input type="radio"/> culture <input type="radio"/> CIDT	<input type="radio"/> culture <input type="radio"/> CIDT	<input type="radio"/> culture <input type="radio"/> CIDT
Pathogen			
Other Specimens (second specimen)			
Was any other specimen collected?	<input type="radio"/> yes <input type="radio"/> no <input type="radio"/> unk		
Date other specimen collection	____ / ____ / ____		
Specimen source			
Test type 1	<input type="radio"/> culture <input type="radio"/> non-culture (CIDT)		
Pathogen 1			
Test type 2	<input type="radio"/> culture <input type="radio"/> non-culture (CIDT)		
Pathogen 2			
Where positive? (check all that apply)	<input type="checkbox"/> clinic <input type="checkbox"/> State or local <input type="checkbox"/> CDC		
Other specimen State lab id			

### Form B Comments, Composite Variables, and Status

15B. Completed by (initials)

\_\_\_\_\_

16B. Comments

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

20B. Complete?

incomplete  unverified  complete

**C****C**

**CDC's Foodnet Hemolytic Uremic Syndrome Surveillance  
Chart Review Form**

*Instructions: Complete after patient has been discharged; use hospital discharge summary, consultation notes and DRG coding sheet.  
Complete one composite form for all institution where hospitalized.*

**Hospitals**

- 1C. Was patient hospitalized?  yes  no  unknown
- 2C. Date of first admission: \_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_
- 3C. Date of last discharge: \_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_

**Complications**

Did any of the following complications occur during this admission:

- |                                      |                           |                          |                               | Date of onset                        |
|--------------------------------------|---------------------------|--------------------------|-------------------------------|--------------------------------------|
| 4C. Pneumonia                        | <input type="radio"/> yes | <input type="radio"/> no | <input type="radio"/> unknown | <i>if yes</i> 5C. _____/_____/_____  |
| 6C. Seizure                          | <input type="radio"/> yes | <input type="radio"/> no | <input type="radio"/> unknown | <i>if yes</i> 7C. _____/_____/_____  |
| 8C. Paralysis or hemiparesis         | <input type="radio"/> yes | <input type="radio"/> no | <input type="radio"/> unknown | <i>if yes</i> 9C. _____/_____/_____  |
| 10C. Blindness                       | <input type="radio"/> yes | <input type="radio"/> no | <input type="radio"/> unknown | <i>if yes</i> 11C. _____/_____/_____ |
| 12C. Other major neurologic sequelae | <input type="radio"/> yes | <input type="radio"/> no | <input type="radio"/> unknown | <i>if yes</i> 13C. _____/_____/_____ |
- if yes, Describe:* \_\_\_\_\_

Were any of the following procedures performed during this admission:

- 14C. Peritoneal dialysis  yes  no  unknown
- 15C. Hemodialysis  yes  no  unknown
- Transfusion with:
- 16C. packed RBC or whole blood  yes  no  unknown
- 17C. platelets  yes  no  unknown
- 18C. fresh frozen plasma  yes  no  unknown
- 19C. Plasmapheresis  yes  no  unknown
- 20C. Laparotomy or other abdominal surgery\*  
(\*other than insertion of dialysis catheter)  
*if yes Describe:* \_\_\_\_\_

**Discharge**

- 21C. Condition at discharge  dead  alive
- if dead* 22C. Date deceased \_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_
- if alive* 23C. Requiring dialysis  yes  no  unknown
- 24C. With neurologic deficits  yes  no  unknown

**Form C Comments, Composite Variables, and Status**

- 25C. Completed by (initials): \_\_\_\_\_
- 26C. Comments \_\_\_\_\_
- 28C. Complete?  incomplete  unverified  complete