A FoodNet A

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

1A. Case ID [caseid] YYYY[Year]XX[Fipscode]001[Record] _____
2A. State ID [stateid] _____
3A. FoodNet Person ID (if applicable) [personid] _____
4A. Site [site] _____
5A. Date entered [denter] ____/____/____

Demographic Information

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

6A. Date of Birth [dob] ____/____/____
7A. State of Residence [state] _____
8A. County of residence [county] _____
9A. Sex [sex] O Female (1) O Male (2)
10A. Ethnicity [ethnicity] O Hispanic (1) O Non-Hispanic (2) O Unknown (9)
11A. Race [race] O Black (1) O White (2) O Asian (3)
O American Indian / Alaska Native (4)
O Pacific Islander / Native Hawaiian (5)
O Multi-Racial (6) O Other (12) O Unknown (9)

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? [dhusunk] O yes(1) O no(0)
13A. Date of HUS diagnosis? [dhus] ____/____/____
14A. Did the patient have diarrhea in the 3 weeks before HUS diagnosis? [diarrhea] O yes (1) O no (0) O unknown (9)
if yes 15A. Date of diarrhea onset [donset] ____/____/____
16A. Did stools contain visible blood at the time? [stoolblood] O yes (1) O no (0) O unknown (9)
17A. Was diarrhea treated with antimicrobial medications? [abxdiar] O yes (1) O no (0) O unknown (9)
if yes 18A. Types of antimicrobials used to treat diarrhea: (check all that apply)
(0,1)
- ☐ Azithromycin (Zithromax, Z-Pak) [abxd_azithromycin]
- ☐ Ceftriaxone (Rocephin)[abxd_ceftriaxone]
- ☐ Ciprofloxin (Cipro) [abxd_cirpofloxin]
- ☐ Levofloxacin (Levaquin) [abxd_levofloxacin]
- ☐ Metronidazole (Flagyl) [abxd_metronidazole]
- ☐ Piperacillin [abxd_piperacillin]
- ☐ Tazobactam [abxd_tazobactam]
- ☐ Trimethoprim Sulfamethoxazole (Bactrim, Septra) [abxd_trimethoprimsul]
- ☐ Vancomycin (Vancocin) [abxd_vancomycin]
- ☐ Other (specify in comments) [abxd_other] _____[abxdoth]
- ☐ Unknown [abxd_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.)? [contact] O yes (1) O no (0) O unknown (9)

20A. Was the patient treated with an antimicrobial medication (ANY antibiotic) for any other reason than diarrhea during the 3 weeks before HUS diagnosis? [abxnotdiar] O yes (1) O no (0) O unknown (9)

if yes 21A. Reason treated with antimicrobial [abxndreason] _____

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

(0,1)
- ☐ Azithromycin (Zithromax, Z-Pak) [abxnd_azithromycin]
- ☐ Ceftriaxone (Rocephin)[abxnd_ceftriaxone]
- ☐ Ciprofloxin (Cipro) [abxnd_cirpofloxin]
- ☐ Levofloxacin (Levaquin) [abxnd_levofloxacin]
- ☐ Metronidazole (Flagyl) [abxnd_metronidazole]
- ☐ Piperacillin [abxnd_piperacillin]
- ☐ Tazobactam [abxnd_tazobactam]
- ☐ Trimethoprim Sulfamethoxazole (Bactrim, Septra) [abxnd_trimethoprimsul]
- ☐ Vancomycin (Vancocin) [abxnd_vancomycin]
- ☐ Other (specify in comments) [abxnd_other] _____[abxndoth]
- ☐ Unknown [abxnd_unknown]

Other medical conditions present during 3 weeks before HUS diagnosis:

23A. Other gastrointestinal illness [gastro] O yes (1) O no (0) O unknown (9)

24A. Urinary tract infection [uti] O yes (1) O no (0) O unknown (9)

25A. Respiratory tract infection [rti] O yes (1) O no (0) O unknown (9)

26A. Other acute illness[acute] O yes (1) O no (0) O unknown (9)

if yes Describe [acutedesc] _____

27A. Pregnancy [preg] O yes (1) O no (0) O unknown (9)

28A. Kidney disease [kidn] O yes (1) O no (0) O unknown (9)

29A. Immune compromising condition or medication [immcomp] O yes (1) O no (0) O unknown (9)

if yes

30A. Malignancy [malig] O yes (1) O no (0) O unknown (9)

31A. Transplanted organ or bone marrow [transpl] O yes (1) O no (0) O unknown (9)

32A. HIV infection [hiv] O yes (1) O no (0) O unknown (9)

33A. Steroid Use (parenteral or oral) [ster] O yes (1) O no (0) O unknown (9)

Other, describe [immother] O yes (1) O no (0) O unknown (9)

_____[immotherdesc]

34A. Did the clinical providers confirm or suspect this is a case of atypical HUS based on laboratory testing or other clinical features? [atypical] O yes (1) O no (0) O unknown (9)

If yes 35A. Provide laboratory values or other pertinent information [atypicaldetails] _____

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/mm3 as 33.7)

36A. Highest serum creatinine [cre] _____ mg/dL (suggested range: 0.10-30.00)

37A. Highest serum BUN [bun] _____ mg/dL (suggested range: 4.0-100.0)

38A. Highest WBC [wbc] _____K/mm^3 (suggested range: 0.50-125.00)

39A. Lowest hemoglobin [hgb] _____ g/dL (suggested range: 2.0-30.0)

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Laboratory Values Continued

40A. Lowest hematocrit [hct] _____ % (suggested range: 0.0-100.0)

41A. Lowest platelet count [plt] _____ K/mm^3 (suggested range: 3.0-600.0)

42A. Microangiopathic changes [rcfrag] O yes (1) O no (0) O unknown (9) O not tested (7)

Other laboratory findings within 7 days before and 3 days after HUS diagnosis:

43A. Blood (or heme) in urine [burine] O yes (1) O no (0) O unknown (9) O not tested (7)

44A. Protein in urine [purine] O yes (1) O no (0) O unknown (9) O not tested (7)

45A. RBC in urine by microscopy [rburine] O yes (1) O no (0) O unknown (9) O not tested (7)

Epi Information

Instructions for Hospital Discharge Data: All records meeting the ICD10-or ICD11-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.

46A. How was patient's illness first identified by public health (state or local health department or EIP)? [firstident]

- O Report of HUS case by a physician or service participating in the FoodNet HUS active surveillance network (1)
- O Report of HUS case by a non-participating physician or service (2)
- O Routine STEC infection active surveillance (3)
- O Retrospective review of hospital discharge data (4)
- O Other (specify in comments) (7) _____[fidentothdesc]
- O Unknown (9)

47A. Date reported to public health or identified by hospital discharge data review [dphreport] ____/____/____

48A. Was hospital discharge data review completed for this case (to verify or supplement information)? [hddrev] O yes (1) O no (0) O unknown (9)

49A. Date of HDD (hospital discharge data) review [dhdd] ____/____/____

50A. Is this case epidemiologically linked to a confirmed or probable Shiga toxin-producing *E.coli* (STEC) case?[epilink] O yes (1) O no (0) O unknown (9)

51A. Is this case outbreak related? [outbreak] O yes (1) O no (0) O unknown (9)

Form A Comments, Composite Variables, and Status

52A. Completed by (initials): [aby] _____

53A. Comments [commentsa] _____

54A. Age at HUS Diagnosis [age] Number in years (round-up)

55A. Is the patient a resident of the FoodNet catchment area [fncatch] 1(in catchment), 0 (not in catchment), blank (incomplete)

56A. Is this a FoodNet pediatric post diarrheal case [postdiarrheal] 1(Yes), 0 (No), blank (incomplete)

57A. Year reported? [reportingyear] _____

58A. Complete? [a_case_report_form_complete] O incomplete (0) O unverified (1) O complete (2)

B FoodNet 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; when possible, the primary specimen should be the specimen associated with a FoodNet infection. 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? [stoolspec] O yes (1) O no (0) O unknown (9)

2B. Date stool specimen collected [dstoolspec] ____/____/____

3B. State Lab ID: [stoolslabsid] _____

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?	O yes (1) O no (0) O unk (9) [sspecsent]	O yes (1) O no (0) O unk (9) [fspecsent]	N/A
Was testing performed at lab?	O yes (1) O no (0) O unk (9) [ctest]	O yes (1) O no (0) O unk (9) [stest]	O yes (1) O no (0) O unk (9) [ftest]
Was a Shiga toxin test performed? (e.g. PCR, EIA)	O yes (1) O no (0) O unk (9) [cstxtest]	O yes (1) O no (0) O unk (9) [sstxtest]	N/A
Shiga toxin test result	O positive (1) O negative (2) [cstxresult]	O positive (1) O negative (2) [sstxresult]	O positive (1) O negative (2) [fstxresult]
Shiga toxin type	O stx1 (1) O stx2 (2) O stx1 & stx2 (3) Oundifferentiated(9) [cstxgene]	O stx1 (1) O stx2 (2) O stx1 & stx2 (3) Oundifferentiated(9) [sstxgene]	O stx1 (1) O stx2 (2) O stx1 & stx2 (3) Oundifferentiated(9) [fstxgene]
Was a CIDT for *E. coli* O157 performed? (e.g. Immunocard Stat)	O yes (1) O no (0) O unk (9) [co157cidt]	O yes (1) O no (0) O unk (9) [so157cidt]	N/A
CIDT result?	O positive (1) O negative (2) [co157cidtresult]	O positive (1) O negative (2) [so157cidtresult]	N/A
Did the test include H7?	O yes (1) O no (0) O unk (9) [cidth7]	N/A	N/A
Was a culture for *E.coli* O157 performed or the isolate confirmed to be *E.coli* O157?	O yes (1) O no (0) O unk (9) [co157cult]	O yes (1) O no (0) O unk (9) [so157cult]	N/A
Was *E.coli* O157 isolated?	O yes (1) O no (0) O unk (9) [co157isol]	O yes (1) O no (0) O unk (9) [so157isol]	O yes (1) O no (0) O unk (9) [fo157isol]
Was a culture for *E.coli* non-O157 performed?	N/A	O yes (1) O no (0) O unk (9) [snono157cult]	N/A
Was *E.coli* non-O157 isolated?	N/A	O yes (1) O no (0) O unk (9) [snono157isol]	O yes (1) O no (0) O unk (9) [fnono157isol]
O Antigen	N/A	O26(1) O111(2) O103(3) O121 (4) O45(5) O145(6) Orough(-2) Ound (-3) Onot found(-1) [soant]	O26(1) O111(2) O103(3) O121 (4) O45(5) O145(6) O118 (7) O69(8) O91(9) O165 (10) O186(11) Other(12) Orough(-1) Ound (-2) Onot tested(-7) [foant] [foantoth]
H Antigen	O H7 pos (1) O H7 neg (2) O non-motile(3) Onot tested(4) [chant]	OH7(1) OH2 (2) OH11(3) OH19 (4) OH16(5) OH8(6) OH25(7) OH21(8) OH28(9) OH49(10) OH14(11) OOther(12) ONon-motile(-1) ONot tested(-7) [shant] [shantoth]	OH7(1) OH2 (2) OH11(3) OH19 (4) OH16(5) OH8(6) OH25(7) OH21(8) OH28(9) OH49(10) OH14(11) OOther(12) ONon-motile(-1) ONot tested(-7) [fhant] [fhantoth]

5B. Was immunomagnetic separation (IMS) used to identify common STEC serogroups? [ims] O yes (1) O no (0) O unknown (9)

6B. What serogroup(s) did the IMS procedure target? (check all that apply) (0,1)

☐O157 [imssero_O157] ☐O26 [imssero_O26] ☐O45 [imssero_O45] ☐O103 [imssero_O103] ☐O111 [imssero_O111] ☐O121 [imssero_O121] ☐O145 [imssero_O145]

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7B. Was whole genome sequencing (WGS) performed on this isolate? (at state or CDC) [wgs] O yes (1) O no (0) O unknown (9)

8B. Sequencing ID [wgsid] _____

8B-1. O antigen gene identified by WGS [wgsoant] _____

8B-2. H antigen gene identified by WGS [wgshant] _____

CDC Serology Tests

9B. Has patient serum or plasma been sent to CDC for testing for antibodies to O157 or other STEC? [antio157] O yes (1) O no (0) O unknown (9)

10B. Date serology specimen collected? [dserum] ____/____/____

11B. State laboratory ID for serum [serumslabsid] _____

12B. Was there more than one serology result for this case? [multiserol] O yes (1) O no (0) O unknown (9)

13B. Questions						
LPS type	Titer IgG	Interpretation of IgG		Titer IgM	Interpretation of IgM	
		Positive	Negative		Positive	Negative
O O157(1) O O111(2) [lpstype1]	[igg1]	[igginterp1] (1)	(2)	[igm1]	[iginterp1] (1)	(2)
[lsptype2]	[igg2]	[igginterp2] (1)	(2)	[igm2]	[iginterp2] (1)	(2)
[lpstype3]	[igg3]	[igginterp3] (1)	(2)	[igm3]	[iginterp3] (1)	(2)

Other Pathogens (co-infections) and Other Specimens

14B. Questions	Clinical Lab	State or Local PHL	CDC Lab (federal)
Were any other pathogens identified?	Oyes(1) Ono(0) O unk(9) [cothpath]	Oyes(1) Ono(0) O unk(9) [sothpath]	Oyes(1) Ono(0) O unk(9) [fothpath]
Specimen source	Same stool used for STEC testing	Same stool used for STEC testing	Same stool used for STEC testing
Test type	Oculture(1) OCIDT(2) [cothpathttyp]	Oculture(1) OCIDT(2) [sothpathttyp]	Oculture(1) OCIDT(2) [fothpathttyp1]
Pathogen	[cpath]	[spath]	[fpath]

Other Specimens (second specimen)	
Was any other specimen collected?	Oyes(1) Ono(0) O unk(9) [othspec]
Date other specimen collection	____/____/____ [dothspec]
Specimen source	[specsrc]
Test type 1	Oculture(1) Onon-culture (CIDT)(2) [othspecttyp1]
Pathogen 1	[othspecpath1]
Test type 2	Oculture(1) Onon-culture (CIDT)(2) [othspecttyp2]
Pathogen 2	[othspecpath2]
Where positive? (check all that apply) (0,1)	☐ clinic [osp_clinic] ☐ State or local [osp_phl] ☐ CDC [osp_cdc]
Other specimen state lab id	[osslabsid]

Form B Comments, Composite Variables, and Status

15B. Completed by (initials): [bby] _____

16B. Comments [commentsb] _____

17B. Is there an STEC isolate? [stecisolate] 1(Yes), 0 (No), blank (incomplete)

18B. Is there evidence of STEC by serology [stecbyserology] 1(Yes), 0 (No), blank (incomplete)

19B. Is there any evidence of Shiga toxin? [anystx] 1(Yes), 0 (No), blank (incomplete)

20B. Complete? [b_microbiology_form_complete] O incomplete (0) O unverified (1) O complete (2)

C FoodNet 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? [hospital] O yes(1) O no(0) O unknown(9)

2C. Date of first admission: [dadmis] ___/____/___

3C. Date of last discharge: [ddisch] ___/____/___

Complications

Did any of the following complications occur during this admission:

				Date of onset
4C.	Pneumonia [pne]	O yes (1) O no (0) O unknown (9)	*if yes*	5C. [dpne]
6C.	Seizure [szr]	O yes (1) O no (0) O unknown (9)	*If yes*	7C. [dszr]
8C.	Paralysis or hemiparesis [par]	O yes (1) O no (0) O unknown (9)	*If yes*	9C. [dpar]
10C.	Blindness [bln]	O yes (1) O no (0) O unknown (9)	*if yes*	11C. [dbln]
12C.	Other major neurologic sequelae [ner]	O yes (1) O no (0) O unknown (9)	*if yes*	13C. [dner]
	if yes, Describe: [nerdesc]	_____		

Were any of the following procedures performed during this admission:

14C.	Peritoneal dialysis [pdial]	O yes (1) O no (0) O unknown (9)
15C.	Hemodialysis [hdial]	O yes (1) O no (0) O unknown (9)
	Transfusion with:	
	16C. packed RBC or whole blood [prbc]	O yes (1) O no (0) O unknown (9)
	17C. platelets [pltt]	O yes (1) O no (0) O unknown (9)
	18C. fresh frozen plasma [ffpl]	O yes (1) O no (0) O unknown (9)
19C.	Plasmapheresis [phres]	O yes (1) O no (0) O unknown (9)
20C.	Laparotomy or other abdominal surgery* [surg] (*other than insertion of dialysis catheter)	O yes (1) O no (0) O unknown (9)
	if yes Describe: [surgdesc]	_____

Discharge

21C. Condition at discharge [conddc]		O dead (1) O alive (0)
if dead	22C. Date deceased [ddead]	____/____/____
if alive	23C. Requiring dialysis [reqdial]	O yes (1) O no (0) O unknown (9)
	24C. With neurologic deficits [neurodef]	O yes (1) O no (0) O unknown (9)

Form C Comments, Composite Variables, and Status

25C. Completed by (initials): [cby] _____

26C. Comments [commentsc] _____

27C. Length of Stay? (Days) [los] Number in Days

28C. Complete? [c_chart_review_form_complete] O incomplete (0) O unverified (1) O complete (2)