State of California—Health and Human Services Agency

California Department of Public Health
Center for Infectious Diseases
Division of Communicable Disease Control
Infectious Diseases Branch
Surveillance and Statistics Section
MS 7306, P.O. Box 997377
Sacramento, CA 95899-7377

Local ID Number: _____

SHIGA TOXIN-PRODUCING ESCHERICHIA COLI (STEC) AND/OR HEMOLYTIC UREMIC SYNDROME (HUS) CASE REPORT

Check one: ☐ STEC without HUS ☐ STEC with HUS ☐ HUS without evidence of STEC

PATIENT INFORMATION

Last Name	*First Name*	*Middle Name*	*Suffix*

Social Security Number (9 digits)	*DOB (mm/dd/yyyy)*	*Age*	
Unknown			☐ Years ☐ Months ☐ Days

Address Number & Street – Residence	*Apartment / Unit Number*

City / Town	*State*	*Zip Code*

Census Tract	*County of Residence*	*Country of Residence*
	Los Angeles	USA

Country of Birth	*If not U.S. Born - Date of Arrival in U.S. (mm/dd/yyyy)*

Home Telephone	*Cellular Phone / Pager*	*Work / School Telephone*

E-mail Address	*Other Electronic Contact Information*

Work / School Location	*Work / School Contact*

Gender
☐ Female ☐ Trans female / transwoman ☐ Genderqueer or non-binary ☐ Unknown
☐ Male ☐ Trans male / transman ☐ Identity not listed ☐ Declined to answer

Pregnant? ☐ Yes ☐ No ☐ Unknown	*If Yes, Est. Delivery Date (mm/dd/yyyy)*

Medical Record Number	*Patient's Parent/Guardian Name*

Occupation Setting (see list on page 12)	*Other Describe/Specify*

Occupation (see list on page 12)	*Other Describe/Specify*

Primary Language
☐ English
☐ Spanish
☐ Other: _____

Ethnicity (check one)
☐ Hispanic/Latino
☐ Non-Hispanic/Non-Latino
☐ Unknown

Race(s)
(check all that apply, race descriptions on page 13)

The response to this item should be based on the patient's self-identity or self-reporting. Therefore, patients should be offered the option of selecting more than one racial designation.

☐ American Indian or Alaska Native

☐ Asian *(check all that apply, see list on page 13)*
- ☐ Asian Indian
- ☐ Bangladeshi
- ☐ Cambodian
- ☐ Chinese
- ☐ Filipino
- ☐ Hmong
- ☐ Indonesian
- ☐ Japanese
- ☐ Korean
- ☐ Laotian
- ☐ Malaysian
- ☐ Pakistani
- ☐ Sri Lankan
- ☐ Taiwanese
- ☐ Thai
- ☐ Vietnamese
- ☐ Other: _____

☐ Black or African-American

☐ Native Hawaiian or Other Pacific Islander *(check all that apply, see list on page 13)*
- ☐ Native Hawaiian
- ☐ Samoan
- ☐ Fijian
- ☐ Tongan
- ☐ Guamanian
- ☐ Other: _____

☐ White

☐ Other: _____

☐ Unknown

ADDITIONAL PATIENT DEMOGRAPHICS

Sex Assigned at Birth
☐ Female ☐ Unknown
☐ Male ☐ Declined to answer

Sexual Orientation
☐ Heterosexual or straight ☐ Questioning, unsure, or patient doesn't know ☐ Declined to answer
☐ Gay, lesbian, or same-gender loving ☐ Orientation not listed ☐ Unknown
☐ Bisexual

First three letters of patient's last name: | | | |

CLINICAL INFORMATION

Physician Name - Last Name	*First Name*	*Telephone Number*

GROUP SETTING

Attends child care or preschool? ☐ Yes ☐ No ☐ Unknown	*Location / Other Details of Child Care, Preschool, or Skilled Nursing Facility*
Lives in skilled nursing facility? ☐ Yes ☐ No ☐ Unknown	

SIGNS AND SYMPTOMS

Symptomatic? ☐ Yes ☐ No ☐ Unknown	*Onset Date (mm/dd/yyyy)*	*Onset Time (hh:mm)*	*Specify AM/PM* ☐ AM ☐ PM	*Duration of Acute Symptoms (days)*

Signs and Symptoms	Yes	No	Unk	If Yes, Specify as Noted	
Diarrhea	☐	☐	☐	*Max. number of stools in 24-hr period*	*Onset date of diarrhea (mm/dd/yyyy)*
Bloody diarrhea	☐	☐	☐		
Fever	☐	☐	☐	*Highest temperature (specify °F/°C)*	
Vomiting	☐	☐	☐		
Abdominal cramps	☐	☐	☐		

Other signs / symptoms (specify)

HEMOLYTIC UREMIC SYNDROME (HUS)

In order for a patient to be counted as a confirmed case of post-diarrheal HUS, the patient must have had an acute illness diagnosed as HUS or thrombotic thrombocytopenic purpura (TTP) that began within 3 weeks after onset of an episode of acute or bloody diarrhea. Attach discharge summary if available.

Did patient have HUS? (See case definition on page 12) ☐ Yes ☐ No ☐ Unknown	*If patient had HUS, did the patient have the following conditions:*
	• Anemia with microangiopathic changes: ☐ Yes ☐ No ☐ Unknown
	• Renal injury (hematuria, proteinuria, or elevated creatinine): ☐ Yes ☐ No ☐ Unknown
	• Thrombocytopenia: ☐ Yes ☐ No ☐ Unknown

Did patient have thrombotic thrombocytopenic purpura (TTP)? TTP is a syndrome consisting of microangiopathic anemia, thrombocytopenic purpura, neurologic changes, fever, and renal disease.

☐ Yes ☐ No ☐ Unknown

Onset Date of HUS or TTP (mm/dd/yyyy)	*Did patient have HUS or TTP that began within 3 weeks after onset of diarrhea?* ☐ Yes ☐ No ☐ Unknown
Did the patient require dialysis? ☐ Yes ☐ No ☐ Unknown	*Did patient receive antimicrobials after onset of diarrhea but before onset of HUS or TTP?* ☐ Yes ☐ No ☐ Unknown

PAST MEDICAL HISTORY

Did the patient take any antibiotics in the 30 days prior to illness onset? ☐ Yes ☐ No ☐ Unknown	*If Yes, specify antibiotic(s)*
Did the patient have other underlying conditions relevant to present illness? ☐ Yes ☐ No ☐ Unknown	*If Yes, specify type of condition*

Other (specify)

HOSPITALIZATION

Did patient visit the emergency room for illness? ☐ Yes ☐ No ☐ Unknown

Was patient hospitalized? ☐ Yes ☐ No ☐ Unknown	*If Yes, how many total hospital nights?*	*During any part of the hospitalization, did the patient stay in an intensive care unit (ICU) or a critical care unit (CCU)?* ☐ Yes ☐ No ☐ Unknown

If there were any ER or hospital stays related to this illness, specify details in the Hospitalization – Details section on page 3.

First three letters of patient's last name: | | | |

HOSPITALIZATION – DETAILS

Hospital Name 1	Street Address			Admit Date (mm/dd/yyyy)	
	City			Discharge / Transfer Date (mm/dd/yyyy)	
	State	Zip Code	Telephone Number	Medical Record Number	Discharge Diagnosis
Hospital Name 2	Street Address			Admit Date (mm/dd/yyyy)	
	City			Discharge / Transfer Date (mm/dd/yyyy)	
	State	Zip Code	Telephone Number	Medical Record Number	Discharge Diagnosis

TREATMENT / MANAGEMENT

Received treatment (e.g., antibiotics, probiotics, intravenous fluids)? ☐ Yes ☐ No ☐ Unknown	If Yes, specify the treatments below.

TREATMENT / MANAGEMENT DETAILS

Treatment Type 1 ☐ Antibiotic ☐ Other	Treatment Name	Date Started (mm/dd/yyyy)	Date Ended (mm/dd/yyyy)
Treatment Type 2 ☐ Antibiotic ☐ Other	Treatment Name	Date Started (mm/dd/yyyy)	Date Ended (mm/dd/yyyy)

OUTCOME

Outcome? ☐ Survived ☐ Died ☐ Unknown	If Survived, Survived as of _____(mm/dd/yyyy)	Date of Death (mm/dd/yyyy)

LABORATORY INFORMATION

For details on the laboratory criteria for diagnosis and clarification of case classification, please refer to the case definition on page 11.

Note: Per Title 17, Shiga toxin positive broths as well as STEC O157 and non-O157 isolates must be forwarded to a public health laboratory (PHL) or CDPH Microbial Diseases Laboratory (MDL) for confirmation.

CLINICAL LABORATORY RESULTS – Culture and Culture Independent Diagnostic Testing [CIDT], including Shiga Toxin

Specimen Type ☐ Stool ☐ Other (specify):_____	Type of Shiga Toxin Test ☐ Enzyme immunoassay (EIA) ☐ PCR ☐ Vero cell assay ☐ Unknown ☐ Other (specify):_____		
Shiga Toxin Test Result ☐ Stx positive ☐ Stx negative ☐ Unknown	If Stx positive, specify type of toxin(s) ☐ Stx 1 ☐ Stx 2 ☐ Stx 1 and Stx 2 ☐ Unknown ☐ Other (specify):_____		
Other CIDT identification for STEC? ☐ Yes ☐ No ☐ Unknown	If CIDT positive, specify result(s) ☐ *E. coli* O157 ☐ Enterohemorrhagic *E. coli* ☐ STEC ☐ Unknown ☐ Other (specify):_____		
	Type of Other CIDT ☐ PCR ☐ Unknown ☐ Other (specify):_____		
Clinical laboratory STEC culture completed? ☐ Yes ☐ No ☐ Unknown	If culture completed, specify result(s) ☐ *E. coli* O157 ☐ STEC non-O157 ☐ Other (specify):_____ ☐ *E. coli* O157:H7 ☐ Negative for STEC		
Collection Date (mm/dd/yyyy)	Laboratory Name	Laboratory CLIA Number	Telephone Number

First three letters of patient's last name: | | | |

CLINICAL LABORATORY RESULTS – Culture and Culture Independent Diagnostic Testing [CIDT], including Shiga Toxin (continued)

ANTIMICROBIAL SUSCEPTIBILITY TESTING

Antimicrobial susceptibility testing completed?

☐ Yes ☐ No ☐ Unknown

Attach additional results or upload to CalREDIE electronic filing cabinet.

Ampicillin:	☐ Susceptible ☐ Intermediate ☐ Resistant ☐ Not done
Azithromycin:	☐ Susceptible ☐ Intermediate ☐ Resistant ☐ Not done
Ciprofloxacin:	☐ Susceptible ☐ Intermediate ☐ Resistant ☐ Not done
TMP-SMX:	☐ Susceptible ☐ Intermediate ☐ Resistant ☐ Not done
Third-generation cephalosporin (specify): _____	☐ Susceptible ☐ Intermediate ☐ Resistant ☐ Not done
Other antimicrobial (specify): _____	☐ Susceptible ☐ Intermediate ☐ Resistant ☐ Not done

CLINICAL LABORATORY RESULTS – Other Tests for Enteric Diagnosis (e.g., serology or mixed enteric infection)

Specimen Type 1	*Type of Test (include non-culture diagnostic testing results)*		*Test Results*
	Collection Date (mm/dd/yyyy)	*Laboratory Name*	*Telephone Number*
Specimen Type 2	*Type of Test (include non-culture diagnostic testing results)*		*Test Results*
	Collection Date (mm/dd/yyyy)	*Laboratory Name*	*Telephone Number*

CDPH MICROBIAL DISEASES LABORATORY (MDL) OR OTHER REFERENCE PUBLIC HEALTH LABORATORY (PHL) RESULTS

Please enter final confirmatory results if available.

Was isolate or broth forwarded to a local public health lab? (required field) ☐ Yes ☐ No ☐ Unknown	*Local Lab ID Number*
Was isolate or broth forwarded to MDL? (required field) ☐ Yes ☐ No ☐ Unknown	*State Lab ID Number*
Specimen Type ☐ Stool ☐Other (specify):_____	*Collection Date (mm/dd/yyyy)*

SHIGA TOXIN RESULTS

Shiga Toxin Test Result (required field) ☐ Stx positive ☐ Stx negative ☐ Unknown	*If Stx positive, specify type of toxin(s) or toxin genes* ☐ Stx 1 ☐ Stx 2 ☐ Stx 1 and Stx 2 ☐ Cytopathic effect ☐ Unknown ☐ Other:_____
Type of Shiga Toxin Test ☐ Enzyme immunoassay (EIA) ☐ PCR ☐ Vero cell assay ☐ Unknown ☐ Other (specify): _____	*Laboratory Name* ☐ MDL ☐ PHL:_____

STOOL CULTURES

Culture Result (required field)

☐ *E. coli* O157
☐ STEC non-O157
☐ Not done
☐ Negative
☐ Unknown
☐ Other (specify):_____

If E. coli O157, specify flagellar (H) antigen
☐ H7 ☐ Non-motile ☐ Unknown ☐ Not done

If STEC non-O157, specify serogroup
☐ O26 ☐ O103 ☐ O121 ☐ *E. coli* not O26, O103, O111, O121, O145, or O157 (O-Undetermined)
☐ O45 ☐ O111 ☐ O145 ☐ Other (specify):_____

If STEC non-O157 and H antigen identified, specify H antigen
☐ Non-motile ☐ Other:_____

Laboratory Name	*Telephone Number*

First three letters of patient's last name: | | | |

CDPH MICROBIAL DISEASES LABORATORY (MDL) OR OTHER REFERENCE PUBLIC HEALTH LABORATORY (PHL) RESULTS
******Please enter final results if available.*** (continued)***

MOLECULAR DIAGNOSTICS

Was PFGE completed? ☐ Yes ☐ No ☐ Unknown	*XbaI Pattern #*	*BlnI Pattern #*	*CDC Cluster ID #*
Was MLVA completed? ☐ Yes ☐ No ☐ Unknown	*If Yes, specify results*		*Laboratory Name* ☐ MDL ☐ PHL:_____
Was whole genomic sequencing (WGS) completed? ☐Yes ☐No ☐Unknown	*If Yes, WGS ID #*	*Specify results or attach*	*Laboratory Name* ☐ MDL ☐ PHL:_____

EPIDEMIOLOGIC INFORMATION

INCUBATION PERIOD: 7 DAYS PRIOR TO ILLNESS ONSET

_____ **to** _____
(onset date minus 7 days) ***(onset date)***

TRAVEL HISTORY

*Did patient travel **outside county of residence** during the **incubation period**?* ☐ Yes ☐ No ☐ Unknown	*If Yes, specify all locations and dates below.*

TRAVEL HISTORY – DETAILS

Travel Type	State	Country	Other location details (city, resort, etc.)	Date Travel Started *(mm/dd/yyyy)*	Date Travel Ended *(mm/dd/yyyy)*
☐ Domestic ☐ Unknown ☐ International					
☐ Domestic ☐ Unknown ☐ International					
☐ Domestic ☐ Unknown ☐ International					

FOOD HISTORY - OUTSIDE HOME

Did patient consume food or drink prepared outside of the home during the incubation period? ☐ Yes ☐ No ☐ Unknown	*If Yes, specify name of place (e.g., restaurant, concession stand, friend's house, etc.), location, date, and items consumed below.*

FOOD HISTORY - OUTSIDE HOME – DETAILS (Include restaurants, parties, take out, food trucks, etc.)

Name of Place 1	*Location (city, state)*	*Date (mm/dd/yyyy)*
	Items Consumed	
Name of Place 2	*Location (city, state)*	*Date (mm/dd/yyyy)*
	Items Consumed	
Name of Place 3	*Location (city, state)*	*Date (mm/dd/yyyy)*
	Items Consumed	
Name of Place 4	*Location (city, state)*	*Date (mm/dd/yyyy)*
	Items Consumed	

First three letters of patient's last name: | | | |

FOOD HISTORY – GROCERIES

WHERE DID THE PATIENT SHOP FOR GROCERIES CONSUMED DURING THE INCUBATION PERIOD (INCLUDE GROCERY AND WAREHOUSE STORES, AS WELL AS FARMERS' MARKETS, DELIS, SWAP MEETS, ETC.)?

Store / Location 1	*Address / Cross-streets*	
	City	*State*
Store / Location 2	*Address / Cross-streets*	
	City	*State*
Store / Location 3	*Address / Cross-streets*	
	City	*State*
Store / Location 4	*Address / Cross-streets*	
	City	*State*

FOOD HISTORY (For all "Yes" responses, please prompt for details as specified.)

DID THE PATIENT EAT OR DRINK ANY OF THE FOLLOWING ITEMS DURING THE INCUBATION PERIOD?

Food Item	Yes	No	Unk	If Yes, Specify as Noted		
Raw (unpasteurized) milk produced by a certified raw milk dairy	☐	☐	☐	*Type(s) e.g., cow, goat*	*Brand(s)*	*Where purchased*
Raw milk from other sources (*e.g.*, directly from farm or cow)	☐	☐	☐	*Type(s)*	*Describe*	*Location*
Other raw milk products such as colostrum, cream, kefir, cheese	☐	☐	☐	*Type(s) of product*	*Describe (e.g., brand, etc.)*	*Where purchased*
Ground beef (*e.g.*, hamburger, meatballs, meatloaf, pasta, etc.) eaten or handled in the home	☐	☐	☐	*Purchased in bulk (e.g., chub, plastic wrapped on styrofoam container)?* ☐ Yes ☐ No ☐ Unknown	*Was the bulk ground beef eaten undercooked or raw?* ☐ Yes ☐ No ☐ Unknown *Brand(s)*	*Where purchased*
				Purchased as preformed patties? ☐ Yes ☐ No ☐ Unknown *Type(s)*	*Were the patties eaten undercooked or raw?* ☐ Yes ☐ No ☐ Unknown *Brand(s)*	*Where purchased*
				Describe (include as much information as possible, including fresh or frozen, % lean, organic, # lbs purchased, etc.)		
				Was the ground beef: (check all that apply) ☐ Eaten ☐ Handled ☐ In home but not eaten or handled		
Ground beef eaten outside the home (*e.g.*, restaurant)	☐	☐	☐	*Eaten undercooked or raw?* ☐ Yes ☐ No ☐ Unknown *How was it served* ☐ Hamburger ☐ Other:_____		*Where purchased*
Other beef	☐	☐	☐	Type	*Brand(s)*	*Where purchased*
Untreated Water	☐	☐	☐	*Source(s)*		
Venison or other game meat	☐	☐	☐	*Type(s)*	*Brand(s)*	*Where purchased*
Dried meat (e.g., salami, jerky)	☐	☐	☐	*Type(s)*	*Brand(s)*	*Where purchased*

First three letters of patient's last name: | | | |

Food Item	Yes	No	Unk	If Yes, Specify as Noted		
Unpasteurized juice or cider	☐	☐	☐	*Type(s)*	*Brand(s)*	*Where purchased*
Leafy green vegetable (e.g., spinach, lettuce, kale, cilantro, basil	☐	☐	☐	*Type(s)*	*Brand(s)*	*Where purchased*
Raw vegetables (**Excluding leafy greens vegetable**	☐	☐	☐	*Type(s)*	*Brand(s)*	*Where purchased*
Raw sprouts, such as from a salad bar, sandwich, stir fry, etc.	☐	☐	☐	*Type(s)* ☐ Alfalfa sprouts ☐ Broccoli sprouts ☐ Mixed sprouts ☐ Other: _____ ☐ Bean sprouts ☐ Clover sprouts ☐ Radish (daikon) sprouts ☐ Unknown		

DID THE PATIENT ATTEND OR PARTICIPATE IN ANY OF THE FOLLOWING EVENTS OR ACTIVITIES DURING THE INCUBATION PERIOD?

Event / Activity	Yes	No	Unk	If Yes, Specify as Noted
Recreational water (e.g., pools, water parks, interactive fountain)	☐	☐	☐	*Location*
Untreated recreational water (e.g., lakes ocean)	☐	☐	☐	*Location*
Ranches, farms, or livestock raising/processing sites	☐	☐	☐	*Location*
Animal exhibits (e.g., petting zoos, fairs	☐	☐	☐	*Location*
Other activities of interest	☐	☐	☐	*Describe*

WAS *THE PATIENT EMPLOYED IN (OR SPENT SIGNIFICANT TIME IN) ANY OF THE FOLLOWING ACTIVITIES DURING THE INCUBATION PERIOD?*

Work with animals or animal products	☐	☐	☐	*Describe*
Contact with children in day care	☐	☐	☐	*Describe*
Other exposures of interest	☐	☐	☐	*Describe*

PATIENT CLEARANCE INFORMAION

Did this patient require clearance to return to daycare, school or work? ☐ Yes ☐ No ☐ Unknown

If Yes, please provide clearance details below.

Was clearance completed? ☐ Yes ☐ No

If Yes, Date of First Clearance Specimen (mm/dd/yyyy)

If Yes, Date of Final Clearance Specimen (mm/dd/yyyy)

If No, specify reason

Clearance Issues (including use of antibiotics to facilitate clearance, etc.) / Comments

PATIENT EMPLOYMENT/SITUATION INFORMATION FOR CLEARANCE

Employer/Situation 1 (place of employment, daycare name, etc.)

Telephone Number

Street Address | *City* | *State* | *Zip Code*

Employer/Situation 2 (place of employment, daycare name, etc.)

Telephone Number

Street Address | *City* | *State* | *Zip Code*

First three letters of patient's last name: | | | |

HOUSEHOLD CONTACTS

How many people besides the case live in the household?	Please provide details below.

HOUSEHOLD CONTACTS – DETAILS

Name 1	Relationship	Age	Gender	Occupation	Sensitive occupation / situation? ☐ Yes ☐ No ☐ Unknown
	Telephone Number	Similar illness? ☐ Yes ☐ No ☐ Unknown		Onset Date (mm/dd/yyyy)	Comment
Name 2	Relationship	Age	Gender	Occupation	Sensitive occupation / situation? ☐ Yes ☐ No ☐ Unknown
	Telephone Number	Similar illness? ☐ Yes ☐ No ☐ Unknown		Onset Date (mm/dd/yyyy)	Comment
Name 3	Relationship	Age	Gender	Occupation	Sensitive occupation / situation? ☐ Yes ☐ No ☐ Unknown
	Telephone Number	Similar illness? ☐ Yes ☐ No ☐ Unknown		Onset Date (mm/dd/yyyy)	Comment
Name 4	Relationship	Age	Gender	Occupation	Sensitive occupation / situation? ☐ Yes ☐ No ☐ Unknown
	Telephone Number	Similar illness? ☐ Yes ☐ No ☐ Unknown		Onset Date (mm/dd/yyyy)	Comment

ILL CONTACTS

Any contacts with similar illness (including household contacts)? ☐ Yes ☐ No ☐ Unknown	If Yes, specify details below.

ILL CONTACTS – DETAILS

Name 1	Age	Gender	Telephone Number	Type of Contact / Relationship	Date of Contact (mm/dd/yyyy)
	Street Address			Exposure Event	Illness Onset Date (mm/dd/yyyy)
	City	State	Zip Code	Occupation	Sensitive occupation / situation? ☐ Yes ☐ No ☐ Unknown
	Laboratory confirmed? ☐ Yes ☐ No ☐ Unknown			CalREDIE ID (if applicable)	
Name 2	Age	Gender	Telephone Number	Type of Contact / Relationship	Date of Contact (mm/dd/yyyy)
	Street Address			Exposure Event	Illness Onset Date (mm/dd/yyyy)
	City	State	Zip Code	Occupation	Sensitive occupation / situation? ☐ Yes ☐ No ☐ Unknown
	Laboratory confirmed? ☐ Yes ☐ No ☐ Unknown			CalREDIE ID (if applicable)	

Remarks

First three letters of patient's last name: | | | |

REPORTING AGENCY

Investigator Name	Local Health Jurisdiction	Telephone Number	Date Form Completed (mm/dd/yyyy)
	Los Angeles County		

First Reported By	Health education provided?	Patient restriction / clearance needed?
☐ Clinician ☐ Laboratory ☐ Other (specify):_____	☐ Yes ☐ No ☐ Unknown	☐ Yes ☐ No ☐ Unknown

EPIDEMIOLOGICAL LINKAGE

Epi-linked to known case?	Contact Name / Case Number
☐ Yes ☐ No ☐ Unknown	

DISEASE CASE CLASSIFICATION

Case Classification (see case definition on pages 11-12)

☐ Confirmed ☐ Probable ☐ Suspect

OUTBREAK

Part of known outbreak?	If Yes, extent of outbreak:
☐ Yes ☐ No ☐ Unknown	☐ One CA jurisdiction ☐ Multiple CA jurisdictions ☐ Multistate ☐ International ☐ Unknown Other:_____

Mode of Transmission	Vehicle of Outbreak	Pattern 1 ID number	Pattern 2 ID number
☐ Point source ☐ Person-to-person ☐ Unknown ☐ Other:_____			

STATE USE ONLY

State Case Classification

☐ Confirmed ☐ Probable ☐ Suspect ☐ Not a case ☐ Need additional information

CASE DEFINITION

SHIGA TOXIN-PRODUCING *ESCHERICHIA COLI* (STEC) (2018)

BACKGROUND

Shiga-toxin producing *Escherichia coli* (STEC), also referred to as Enterohemorrhagic *E. coli* (EHEC), can cause illness that ranges from mild diarrhea to bloody diarrhea and life-threatening hemolytic uremic syndrome (HUS). STEC are categorized into serogroups by their somatic O antigen. The STEC serogroup most commonly identified and associated with severe illness in the United States is *E. coli* O157; however, there are over 50 other serogroups that can cause illness.

CLINICAL CRITERIA

An infection of variable severity characterized by diarrhea (often bloody) and/or abdominal cramps. Illness may be complicated by HUS (note that some clinicians still use the term thrombotic thrombocytopenic purpura [TTP] for adults with post-diarrheal HUS).

LABORATORY CRITERIA FOR DIAGNOSIS

Confirmatory laboratory evidence

- Isolation of *E. coli* O157:H7 from a clinical specimen, OR
- Isolation of *E. coli* from a clinical specimen with detection of Shiga toxin or Shiga toxin genes.

Supportive laboratory evidence

- Isolation of E. coli O157 from a clinical specimen without confirmation of H antigen, detection of Shiga toxin, or detection of Shiga toxin genes, OR
- Identification of an elevated antibody titer against a known Shiga toxin-producing serogroup of *E. coli*, OR
- Detection of Shiga toxin or Shiga toxin genes in a clinical specimen using a culture-independent diagnostic test (CIDT) and no known isolation of *Shigella* from a clinical specimen, OR
- Detection of *E. coli* O157 or STEC/EHEC in a clinical specimen using a CIDT.

EPIDEMIOLOGIC LINKAGE

- A clinically compatible illness in a person that is epidemiologically linked to a confirmed or probable case with laboratory evidence, OR
- A clinically compatible illness in a person that is a member of a risk group as defined by public health authorities during an outbreak.

Criteria to distinguish a new case of this disease or condition from reports or notifications which should not be enumerated as a new case for surveillance:

- A new case should be created when a positive laboratory result is received more than 180 days after the most recent positive laboratory result associated with a previously reported case in the same individual, OR
- When two or more different serogroups/serotypes are identified in one or more specimens from the same individual, each serogroup/serotype should be reported as a separate case.

CASE DEFINITION *(continued)*

CASE CLASSIFICATION

Confirmed

- ***A Person that meets the confirmatory laboratory criteria for diagnosis.***

Probable

- A person with isolation of *E. coli* O157 from a clinical specimen without confirmation of H antigen, detection of Shiga toxin or detection of Shiga toxin genes, OR
- A clinically compatible illness in a person with identification of an elevated antibody titer against a known Shiga toxin-producing serogroup of *E. coli*, OR
- A clinically compatible illness in a person with detection of Shiga toxin or Shiga toxin genes in a clinical specimen using a CIDT and no known isolation of *Shigella* from a clinical specimen, OR
- A clinically compatible illness in a person with detection of *E. coli* O157 or STEC/EHEC from a clinical specimen using a CIDT, OR
- A clinically compatible illness in a person that is epidemiologically linked to a confirmed or probable case with laboratory evidence, OR
- A clinically compatible illness in a person that is a member of a risk group as defined by public health authorities during an outbreak.

Suspect

- A person that meets the supportive laboratory criteria for diagnosis with no known clinical compatibility, OR
- A person with a diagnosis of post-diarrheal HUS/TTP (see HUS case definition).

SHIGA TOXIN-PRODUCING *ESCHERICHIA COLI* (STEC) (2018) (continued)

COMMENTS

Asymptomatic infections and infections at sites other than the gastrointestinal tract in people (1) meeting the confirmatory laboratory criteria for diagnosis or (2) with isolation of *E. coli* O157 from a clinical specimen without confirmation of H antigen, detection of Shiga toxin, or detection of Shiga toxin genes should be considered STEC cases and should be reported.

Although infections with Shiga toxin-producing organisms in the United States are primarily caused by STEC, in recent years an increasing number are due to infections by Shiga toxin-producing *Shigella*. Persons with (1) detection of Shiga toxin or Shiga toxin genes using a CIDT and (2) isolation of *Shigella spp.* from a clinical specimen should not be reported as an STEC case.

Due to the variable sensitivities and specificities of CIDT methods and the potential for degradation of Shiga toxin in a specimen during transit, discordant results may occur between clinical and public health laboratories. Persons with (1) detection of Shiga toxin or Shiga toxin genes using a CIDT, (2) the absence of isolation of *Shigella* from a clinical specimen, and (3) clinically compatible symptoms, should be reported as a probable case, regardless of whether detection of Shiga toxin or Shiga toxin genes is confirmed by a public health laboratory.

HEMOLYTIC UREMIC SYNDROME, POST-DIARRHEAL (2010)

CLINICAL DESCRIPTION

Hemolytic uremic syndrome (HUS) is characterized by the acute onset of microangiopathic hemolytic anemia, renal injury, and low platelet count. Thrombotic thrombocytopenic purpura (TTP) also is characterized by these features but can include central nervous system (CNS) involvement and fever and may have a more gradual onset. Most cases of HUS (but few cases of TTP) occur after an acute gastrointestinal illness (usually diarrheal).

LABORATORY CRITERIA FOR DIAGNOSIS

The following are both present at some time during the illness: Anemia (acute onset) with microangiopathic changes (i.e., schistocytes, burr cells, or helmet cells) on peripheral blood smear and renal injury (acute onset) evidenced by either hematuria, proteinuria, or elevated creatinine level (i.e., greater than or equal to 1.0 mg/dL in a child aged less than 13 years or greater than or equal to 1.5 mg/dL in a person aged greater than or equal to 13 years, or greater than or equal to 50% increase over baseline).

Note: A low platelet count can usually, but not always, be detected early in the illness, but it may then become normal or even high. If a platelet count obtained within 7 days after onset of the acute gastrointestinal illness is not less than 150,000/mm^3, other diagnoses should be considered.

CASE CLASSIFICATION

Confirmed

- An acute illness diagnosed as HUS or TTP that both meets the laboratory criteria and began within 3 weeks after onset of an episode of acute or bloody diarrhea

Probable

- An acute illness diagnosed as HUS or TTP that meets the laboratory criteria in a patient who does not have a clear history of acute or bloody diarrhea in preceding 3 weeks, OR
- An acute illness diagnosed as HUS or TTP, that a) has onset within 3 weeks after onset of an acute or bloody diarrhea and b) meets the laboratory criteria except that microangiopathic changes are not confirmed

COMMENT

Some investigators consider HUS and TTP to be part of a continuum of disease. Therefore, criteria for diagnosing TTP on the basis of CNS involvement and fever are not provided because cases diagnosed clinically as post-diarrheal TTP also should meet the criteria for HUS. These cases are reported as post-diarrheal HUS.

RACE DESCRIPTION

Race	Description
American Indian or Alaska Native	Patient has origins in **any** of the original peoples of North and South America (including Central America).
Asian	Patient has origins in **any** of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent (e.g., including Bangladesh, Cambodia, China, India, Indonesia, Japan, Korea, Malaysia, Nepal, Pakistan, the Philippine Islands, Thailand, and Vietnam).
Black or African American	Patient has origins in **any** of the black racial groups of Africa.
Native Hawaiian or Other Pacific Islander	Patient has origins in **any** of the original peoples of Hawaii, Guam, American Samoa, or other Pacific Islands.
White	Patient has origins in **any** of the original peoples of Europe, the Middle East, or North Africa.

ASIAN GROUPS

- Bangladeshi
- Bhutanese
- Burmese
- Cambodian
- Chinese
- Filipino
- Hmong
- Indian
- Indonesian
- Iwo Jiman
- Japanese
- Korean
- Laotian
- Madagascar
- Malaysian
- Maldivian
- Nepalese
- Okinawan
- Pakistani
- Singaporean
- Sri Lankan
- Taiwanese
- Thai
- Vietnamese

ATIVE HAWAIIAN AND OTHER PACIFIC ISLANDER GROUPS

- Carolinian
- Chamorro
- Chuukese
- Fijian
- Guamanian
- Kiribati
- Kosraean
- Mariana Islander
- Marshallese
- Melanesian
- Micronesian
- Native Hawaiian
- New Hebrides
- Palauan
- Papua New Guinean
- Pohnpeian
- Polynesian
- Saipanese
- Samoan
- Solomon Islander
- Tahitian
- Tokelauan
- Tongan
- Yapese

First three letters of patient's last name: | | | |

OCCUPATION SETTING

- Childcare/Preschool
- Correctional Facility
- Drug Treatment Center
- Food Service
- Health Care - Acute Care Facility
- Health Care - Long Term Care Facility
- Health Care - Other
- Homeless Shelter
- Laboratory
- Military Facility
- Other Residential Facility
- Place of Worship
- School
- Other

OCCUPATION

- Agriculture - farmworker or laborer (crop, nursery, or greenhouse)
- Agriculture - field worker
- Agriculture - migratory/seasonal worker
- Agriculture - other/unknown
- Animal - animal control worker
- Animal - farm worker or laborer (farm or ranch animals)
- Animal - veterinarian or other animal health practitioner
- Animal - other/unknown
- Clerical, office, or sales worker
- Correctional facility - employee
- Correctional facility - inmate
- Craftsman, foreman, or operative
- Daycare or child care attendee
- Daycare or child care worker
- Dentist or other dental health worker
- Drug dealer
- Fire fighting or prevention worker
- Flight attendant
- Food service - cook or food preparation worker
- Food service - host or hostess
- Food service - waiter or waitress
- Food service - other/unknown
- Homemaker
- Laboratory technologist or technician
- Laborer - private household or unskilled worker
- Manager, official, or proprietor
- Manicurist or pedicurist
- Medical - emergency medical technician or paramedic
- Medical - health care worker
- Medical - medical assistant
- Medical - pharmacist
- Medical - physician assistant or nurse practitioner
- Medical - physician or surgeon
- Medical - registered nurse
- Medical - other/unknown
- Military - officer
- Military - recruit or trainee
- Protective service - police officer
- Protective service - other
- Professional, technical, or related profession
- Retired
- Sex worker
- Student - preschool or kindergarten
- Student - elementary or middle school
- Student - high (secondary) school
- Student - college or university
- Student - other/unknown
- Teacher/employee - preschool or kindergarten
- Teacher/employee - elementary or middle school
- Teacher/employee - high (secondary) school
- Teacher/instructor/employee - college or university
- Teacher/instructor/employee - other/unknown
- Unemployed - seeking employment
- Unemployed - not seeking employment
- Unemployed - other/unknown
- Other
- Refused
- Unknown

First three letters of patient's last name: | | | |

HOUSEHOLD CONTACTS – DETAILS (continued from page 7)

Name 5	Relationship	Age	Gender	Occupation	Sensitive occupation / situation? ☐ Yes ☐ No ☐ Unknown
	Telephone Number	Similar illness? ☐ Yes ☐ No ☐ Unknown		Onset Date (mm/dd/yyyy)	Comment
Name 6	Relationship	Age	Gender	Occupation	Sensitive occupation / situation? ☐ Yes ☐ No ☐ Unknown
	Telephone Number	Similar illness? ☐ Yes ☐ No ☐ Unknown		Onset Date (mm/dd/yyyy)	Comment
Name 7	Relationship	Age	Gender	Occupation	Sensitive occupation / situation? ☐ Yes ☐ No ☐ Unknown
	Telephone Number	Similar illness? ☐ Yes ☐ No ☐ Unknown		Onset Date (mm/dd/yyyy)	Comment
Name 8	Relationship	Age	Gender	Occupation	Sensitive occupation / situation? ☐ Yes ☐ No ☐ Unknown
	Telephone Number	Similar illness? ☐ Yes ☐ No ☐ Unknown		Onset Date (mm/dd/yyyy)	Comment
Name 9	Relationship	Age	Gender	Occupation	Sensitive occupation / situation? ☐ Yes ☐ No ☐ Unknown
	Telephone Number	Similar illness? ☐ Yes ☐ No ☐ Unknown		Onset Date (mm/dd/yyyy)	Comment
Name 10	Relationship	Age	Gender	Occupation	Sensitive occupation / situation? ☐ Yes ☐ No ☐ Unknown
	Telephone Number	Similar illness? ☐ Yes ☐ No ☐ Unknown		Onset Date (mm/dd/yyyy)	Comment

ILL CONTACTS – DETAILS (continued from page 7)

Name 3	Age	Gender	Telephone Number	Type of Contact / Relationship	Date of Contact (mm/dd/yyyy)
	Street Address			Exposure Event	Illness Onset Date (mm/dd/yyyy)
	City	State	Zip Code	Occupation	Sensitive occupation / situation? ☐ Yes ☐ No ☐ Unknown
	Laboratory confirmed? ☐ Yes ☐ No ☐ Unknown			CalREDIE ID (if applicable)	
Name 4	Age	Gender	Telephone Number	Type of Contact / Relationship	Date of Contact (mm/dd/yyyy)
	Street Address			Exposure Event	Illness Onset Date (mm/dd/yyyy)
	City	State	Zip Code	Occupation	Sensitive occupation / situation? ☐ Yes ☐ No ☐ Unknown
	Laboratory confirmed? ☐ Yes ☐ No ☐ Unknown			CalREDIE ID (if applicable)	
Name 5	Age	Gender	Telephone Number	Type of Contact / Relationship	Date of Contact (mm/dd/yyyy)
	Street Address			Exposure Event	Illness Onset Date (mm/dd/yyyy)
	City	State	Zip Code	Occupation	Sensitive occupation / situation? ☐ Yes ☐ No ☐ Unknown
	Laboratory confirmed? ☐ Yes ☐ No ☐ Unknown			CalREDIE ID (if applicable)	