TEXAS Health and Human Services | Texas Department of State Health Services

Local health departments should fax completed investigation form to regional DSHS office.
Regional DSHS offices should fax completed investigation form to 512-776-7616.

Shiga Toxin-Producing *Escherichia coli* (*E. coli*) and/or Hemolytic Uremic Syndrome (HUS) Investigation Form

NBS ID: _____

DSHS specimen ID: _____

☐ **Outbreak related?** Outbreak Name: _____

CASE STATUS: ☐ CONFIRMED ☐ PROBABLE ☐ SUSPECT ☐ NOT A CASE
☐ EPI – LINKED (NBS ID): _____

Patient's name: _____ (Last) , _____ (First)

Address: _____

City: _____ **County**: _____ **Zip**: _____

Phone: _____ **Email**: _____

DOB: _____ **Age**: _____ **Sex**: ☐ Male ☐ Female ☐ Unknown

Race: ☐ White ☐ Black ☐ Asian ☐ Pacific Islander ☐ Native American/Alaskan ☐ Unknown ☐ Other: _____ **Hispanic**: ☐ Yes ☐ No ☐ Unknown

Occupation: _____

**Provide name and address for day care, early childhood development, or food service employment*

Reported by: _____

Phone: _____ Date reported: _____

Investigated by: _____

Agency: _____

Phone: _____

Email: _____

Investigation start date: _____

Date of initial interview attempt: _____

CLINICAL DATA

Symptomatic? ☐ Yes, onset date: _____ ☐ No ☐ Unknown

If symptomatic, mark all that apply:

☐ Bloody diarrhea ☐ Diarrhea ☐ Fever (max temp: _____) ☐ Vomiting
☐ Nausea ☐ Chills ☐ Poor feeding ☐ Headache
☐ Irritable ☐ Abdominal cramps or pain
☐ Other: _____

Hospitalized for this illness? ☐ Yes ☐ No ☐ Emergency room visit only ☐ Unknown

Date of admission: _____ Date of discharge: _____

Name and location of hospital: _____

Did the patient die? ☐ Yes, died on: _____ ☐ No ☐ Unknown

Did the patient die due to this illness? ☐ Yes ☐ No ☐ Unknown

Were hospital records/ discharge summaries sent to DSHS? ☐ Yes ☐ No

HEMOLYTIC UREMIC SYNDROME (POSTDIARRHEAL)

*Mark all that apply/ Please submit medical records that support the HUS diagnosis

☐ Hemolytic uremic syndrome (HUS) (postdiarrheal)
☐ Acute anemia
☐ Renal (kidney) injury or failure
  ☐ Hematuria (blood in urine)
  ☐ Proteinuria (excess protein in urine)
  ☐ Elevated creatinine, value: _____ mg/dL
☐ Microangiopathic changes on peripheral blood smear
☐ Dialysis required
☐ Coagulopathy (platelets < 100,000)

TREATMENT/ PREDISPOSING CONDITIONS

Antibiotics or antimotility drugs taken for this illness? ☐ Yes ☐ No ☐ Unknown

Drug: _____ *Start:* _____ *End*: _____ *Drug:* _____ *Start*: _____ *End*: _____

Antibiotic use within 30 days of onset? ☐ Yes, list: _____ ☐ No ☐ Unknown

Chronic medication use? ☐ Yes, list: _____ ☐ No ☐ Unknown

Immunocompromised? ☐ Yes, list: _____ ☐ No ☐ Unknown

LABORATORY DATA

Specimen source: _____ **Collection date**: _____ **Laboratory name**: _____

DSHS specimen ID#: _____ *Sent to TX DSHS lab? ☐ Yes ☐ No ☐ Unknown

LAB RESULTS (mark all that apply)

Isolation/ Culture/ Whole genome sequencing (WGS):

☐ *Escherichia coli* only (*E. coli*)
☐ *E. coli* O157 ("H" unknown or not H7) ☐ *E. coli* O157:H7
☐ *E. coli* not O157, serotype: _____
☐ Other: _____
☐ Negative/ No pathogens isolated ☐ Not done

EIA/ Antibody test:

☐ Shiga toxin demonstrated/ Shiga-like toxin positive
☐ Elevated antibody titer, serogroup: _____
☐ Negative/ no toxin detected

PCR/ Molecular Test:

☐ *stx1* ☐ *stx2* ☐ *stx1/ stx2*
☐ Shiga toxin-producing *E. coli* (STEC)
☐ Enterohemorrhagic *E. coli* (EHEC)
☐ *E. coli* O157
☐ Negative

Suspect: (1) Positive EIA and/ or PCR, in the absence of a positive culture result, without diarrhea or abdominal pain
(2) HUS case without STEC lab testing

Not a Case: (1) Isolation of E. coli without shiga toxin production
(2) Detection of Enteroaggregative *E. coli* (EAEC), Enteropathogenic *E. coli* (EPEC), Enterotoxigenic *E. coli* (ETEC), Enteroinvasive *E. coli* (EIEC)

PUBLIC HEALTH EXPOSURES
(mark all that apply)

☐ Food employee:
Job description: _____

☐ Health care worker

☐ Child care or preschool employee

☐ Aged care/ assisted living employee

☐ Household/ close contact with employee in sensitive setting (HCW, child care, food)

☐ Contact with diapered/ incontinent person

☐ Other: _____

Did the case work at, visit or attend a day care center, preschool, aged care, assisted living or residential facility? ☐ Yes ☐ No ☐ Unknown

If yes, name and location: _____

Were any other attendees or staff ill? ☐ Yes ☐ No ☐ Unknown

Were they tested or investigated? ☐ Yes ☐ No ☐ Unknown

Were they excluded from attendance? ☐ Yes ☐ No ☐ Unknown

Details: _____

Did the case attend any large gatherings (e.g. reception, party)? ☐ Yes ☐ No ☐ Unknown

What, where, when, what food eaten: _____

Were other attendees reported ill? ☐ Yes ☐ No ☐ Unknown

Details: _____

PUBLIC HEALTH ACTIONS *(mark all that apply)*

☐ Food employee exclusion – until 2 consecutive negative stool samples returned as required by TAC §229.163(d)

☐ Child care inspection ☐ Restaurant inspection ☐ Hygiene education provided: _____

☐ Trace-back investigation initiated ☐ Environmental/ food/ water supply testing: _____

CONTACTS

Is this case associated/ epi-linked to another case? ☐ Yes ☐ No Case information: _____

How many household contacts does the patient have? _____ Have any of these had similar illness? ☐ Yes ☐ No ☐ Unknown

If yes, complete the following:

Last: _____ First: _____ DOB: _____ Onset date: _____ Positive lab? ☐ Yes ☐ No

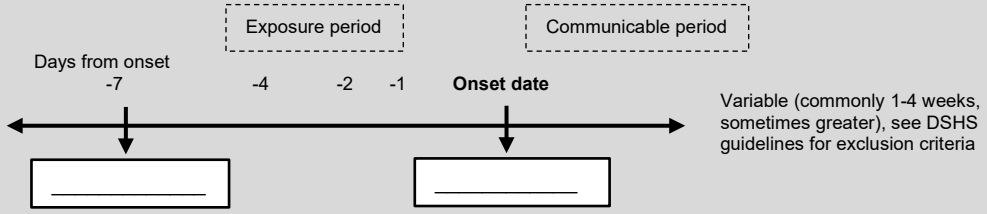
Last: _____ First: _____ DOB: _____ Onset date: _____ Positive lab? ☐ Yes ☐ No

Last: _____ First: _____ DOB: _____ Onset date: _____ Positive lab? ☐ Yes ☐ No

Last: _____ First: _____ DOB: _____ Onset date: _____ Positive lab? ☐ Yes ☐ No

INFECTION TIMELINE

Enter onset date in box and count back to determine probable exposure periods (within 7 days) – enter date



INVESTIGATION

☐ Case was lost to follow-up (three failed contact attempts made OR language barrier OR refusal)

Interviewee / Investigation completed by: ☐ Case ☐ Surrogate ☐ Medical record only ☐ Other: _____

Date of interview completion / Medical record review if no interview: _____

TRAVEL

7 days prior to illness onset, did the case travel outside of usual routine? ☐ Yes ☐ No ☐ Unknown

Out of county ☐ Yes ☐ No ☐ Unknown

If yes, when and where: _____

Out of state ☐ Yes ☐ No ☐ Unknown

If yes, when and where: _____

Out of country ☐ Yes ☐ No ☐ Unknown

If yes, when and where: _____

WATER EXPOSURES

Main source of drinking water: _____

Did the case have access to any recreational water sources?
☐ Yes ☐ No ☐ Unknown

Were these water sources treated/ chlorinated?
☐ Yes ☐ No ☐ Unknown

Names, dates, locations: _____

_____

Water source exposure:

☐ Personal swimming pool ☐ Public swimming pool

☐ Pond ☐ Water fountain ☐ Ocean

☐ Lake/ river ☐ Water park ☐ Spa

☐ Other: _____

FOOD EXPOSURE – in the 7 days prior to illness *(provide as much detail as possible and include location/ address of exposure or purchase)*

Ground beef exposure:

Did the case **handle or prepare ground beef at home**?
☐ Yes ☐ No ☐ Unsure
Brand, when, how prepared (tacos, casserole, hamburger, rare): _____

_____

Did the case **eat ground beef at home**?
☐ Yes ☐ No ☐ Unsure
Brand, when, what (tacos), how prepared (rare): _____

_____

Did the case **handle, prepare or eat pre-formed raw, pre-cooked or frozen ground beef patties**?
☐ Yes ☐ No ☐ Unsure
Brand, when, where, how prepared (rare): _____

_____

Did the case **eat ground beef outside of home** (at another's house, restaurant, food truck, fast food chain, social event or gathering)?
☐ Yes ☐ No ☐ Unsure
Where, what (tacos, burger), when, brand, how prepared (rare): _____

_____

Other beef exposure:

Did the case **handle or prepare any other beef products at home** (steak, sirloin, tri-tip)?
☐ Yes ☐ No ☐ Unsure
What (steak), when, brand, how prepared (rare): _____

_____

Did the case **eat any other beef products at home** (steak, sirloin, deli meat, jerky, frozen meals)?
☐ Yes ☐ No ☐ Unsure
What (steak, carne asada), where, when, brand, how prepared (rare): _____

_____

Did the case **eat any other beef products outside of home** (at another's house, restaurants, food truck, fast food outlet, social event)?
☐ Yes ☐ No ☐ Unsure
What (steak), where, when, brand, how prepared (BBQ, rare): _____

_____

Other meat exposure:

Did the case **handle, prepare or eat bison**?
☐ Yes ☐ No ☐ Unsure
Where, what (steak, BBQ, sandwich), when, brand, how prepared (rare): _____

_____

Did the case **handle, prepare, or eat venison, elk, boar, or any other game meat**?
☐ Yes ☐ No ☐ Unsure
What, where, when, brand, how prepared (steak, taco, rare): _____

_____

Did the case **eat dried or fermented meat** (jerky, pepperoni, salami, lunch meat, summer sausage)?
☐ Yes ☐ No ☐ Unsure
What, where, when, brand, how prepared (on pizza, in sandwich): _____

_____

Did the case **handle, prepare or eat any other meat products** (such as poultry, pork, lamb, goat)?
☐ Yes ☐ No ☐ Unsure
What, where, when, brand, how prepared (roast, BBQ, in sandwich): _____

_____

Dairy or juice exposure:

Did the case **drink any raw or unpasteurized milk**? ☐ Yes ☐ No ☐ Unsure

Where, when, brand: _____

_____

Did the case **eat any cheese or dairy products made from raw milk**? ☐ Yes ☐ No ☐ Unsure

What (queso fresco, queso blanco), where, when, brand: _____

_____

Did the case **eat any artisanal or gourmet cheese** (feta, brie, camembert)? ☐ Yes ☐ No ☐ Unsure

What, where, when, brand: _____

_____

Did the case **drink any raw, freshly squeezed or unpasteurized juice or cider**? ☐ Yes ☐ No ☐ Unsure

What, where, when, brand: _____

_____

Lettuce and greens exposure:

Did the case **eat iceberg lettuce** (prepackaged, whole, shredded, in a salad, burger, sandwich)?

☐ Yes ☐ No ☐ Unsure

Where, when, brand, how prepared, how packaged: _____

_____

Did the case **eat romaine lettuce** (prepackaged, whole, shredded, in a salad, burger, sandwich)?

☐ Yes ☐ No ☐ Unsure

Where, when, brand, how prepared, how packaged: _____

_____

Did the case **eat spinach** (prepackaged, whole, shredded, in a salad, burger, sandwich)?

☐ Yes ☐ No ☐ Unsure

Where, when, brand, how prepared, how packaged: _____

_____

Did the case **eat other leafy greens** such as **mesclun or red leaf lettuce** (prepackaged, whole, shredded, in a salad, burger, sandwich)?

☐ Yes ☐ No ☐ Unsure

Where, when, brand, how prepared, how packaged: _____

_____

Sprouts exposure:

Did the case **eat sprouts** (in a salad, sandwich)? ☐ Yes ☐ No ☐ Unsure

Where, when, what type, how prepared, how packaged: _____

_____

Animal contact:

Did the case **visit a petting zoo**? ☐ Yes ☐ No ☐ Unsure

What animals, where, when: _____

_____

Did the case **visit, work or live on a farm with animals**? ☐ Yes ☐ No ☐ Unsure

What animals, where, when: _____

_____

Animal contact continued:

Did the case **visit a county/ state fair, 4-H, livestock show or other events <u>where animals were present or involved</u>**?

☐ Yes ☐ No ☐ Unsure

What animals, where, when: _____

_____

Did the case have **<u>contact with any animals</u> of any kind or <u>visit a location where animals were present</u>**?

☐ Yes ☐ No ☐ Unsure

What animals, where, when: _____

_____

Did the case have **<u>contact with animal feces</u>** (dried/ pellets, manure, pet droppings, owl pellets for science projects)?

☐ Yes ☐ No ☐ Unsure

What, where, when, brand: _____

_____

Did the case have **<u>contact with animal food products</u>** (pet chews, pet or livestock food or feed, wet and dry foods)?

☐ Yes ☐ No ☐ Unsure

What, when, where, brands, packaging: _____

_____

Shopping locations where food was purchased or eaten at:

☐ Grocery store, supermarket ☐ Warehouse store ☐ Small/ mini market ☐ Ethnic market ☐ Health food store, co-op

☐ Fish market ☐ Butcher ☐ Farmers market, roadside stand ☐ Other: _____

Please list the location where food is commonly purchased (or during exposure period) for food consumption:

Name, Location, Dates, Shopper card#: _____

Name, Location, Dates, Shopper card#: _____

Name, Location, Dates, Shopper card#: _____

Name, Location, Dates, Shopper card#: _____

Sources of food prepared outside of home during exposure period:

☐ National fast food chain ☐ Mexican ☐ Italian ☐ Seafood ☐ Jamaican, Cuban, Caribbean

☐ Steakhouse, grill ☐ BBQ ☐ Buffet ☐ Vegetarian, vegan ☐ Middle Eastern, Arabic, African

☐ Deli, sandwich shop ☐ Diner, café ☐ Catered event ☐ Take-out ☐ Asian (Chinese, Japanese, Indian)

☐ Breakfast, brunch ☐ School, institution ☐ Cafeteria (work, school)

☐ Other: _____

List the names, food consumed, addresses, dates:

_____

_____

_____

_____

_____

_____

_____

_____

_____

OPEN ENDED FOOD HISTORY

Recollection of the food commonly eaten daily in the 7-day prior to onset: _____ to _____

Start with the day of illness onset and work backwards.

Day 1 – Date of illness onset (_____) **Time of illness onset:** ____ : ____ ☐ AM / ☐ PM

Breakfast	**Lunch**	**Dinner**	**Other/ snacks**
☐ Home / ☐ Out	☐ Home / ☐ Out	☐ Home / ☐ Out	

Day 2 – Day prior to illness onset (_____)

Breakfast	**Lunch**	**Dinner**	**Other/ snacks**
☐ Home / ☐ Out	☐ Home / ☐ Out	☐ Home / ☐ Out	

Day 3 – Second day prior to illness onset (_____)

Breakfast	**Lunch**	**Dinner**	**Other/ snacks**
☐ Home / ☐ Out	☐ Home / ☐ Out	☐ Home / ☐ Out	

Day 4 – Third day prior to illness onset (_____)

Breakfast	**Lunch**	**Dinner**	**Other/ snacks**
☐ Home / ☐ Out	☐ Home / ☐ Out	☐ Home / ☐ Out	

Day 5 – Fourth day prior to illness onset (_____)

Breakfast	**Lunch**	**Dinner**	**Other/ snacks**
☐ Home / ☐ Out	☐ Home / ☐ Out	☐ Home / ☐ Out	

Day 6 – Fifth day prior to illness onset (_____)

Breakfast	Lunch	Dinner	Other/ snacks
☐ Home / ☐ Out	☐ Home / ☐ Out	☐ Home / ☐ Out	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Day 7 – Sixth day prior to illness onset (_____)

Breakfast	Lunch	Dinner	Other/ snacks
☐ Home / ☐ Out	☐ Home / ☐ Out	☐ Home / ☐ Out	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Day 8 – Seventh day prior to illness onset (_____)

Breakfast	Lunch	Dinner	Other/ snacks
☐ Home / ☐ Out	☐ Home / ☐ Out	☐ Home / ☐ Out	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Thank you for your assistance with our investigation.

Should we need to contact you again, what would be the best phone number to reach you? _____

What is a good alternate contact phone number? _____

Do you have an email address we could contact you on? _____

ADDITIONAL COMMENTS:

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____