Amebiasis (Amebic Dysentery) Investigation Guideline

CONTENTS

Investigation Protocol:

- **Investigation Guideline**

Investigation Forms / Documentation Worksheets:

- **General Investigation Form(s)**
- **Enteric Supplemental Form**

Supporting Material:

- **Fact Sheet**

Version 4/2009

Amebiasis (Amebic Dysentery)
Disease Management and Investigative Guidelines

CASE DEFINITION (CDC 1990)

A. Clinical Description for Public Health Surveillance:
Infection of the large intestine by *Entamoeba histolytica* may result in an illness of variable severity ranging from mild, chronic diarrhea to fulminant dysentery. Infection also may be asymptomatic. Extraintestinal infection also can occur (e.g., hepatic abscess).

B. Laboratory Criteria for Case Classification:
- Intestinal Amebiasis:
  - Demonstration of cysts or trophozoites of E. histolytica in stool, or
  - Demonstration of trophozoites in tissue biopsy or ulcer scrapings by culture or histopathology.
- Extraintestinal Amebiasis:
  - Demonstration of E. histolytica trophozoites in extraintestinal tissue.

C. Case Classification:
- Confirmed, intestinal amebiasis:
  - A clinically compatible illness that is laboratory confirmed.
- Confirmed, extraintestinal amebiasis:
  - A parasitologically confirmed infection of extraintestinal tissue, or
  - Among symptomatic persons (with clinical or radiographic findings consistent with extraintestinal infection), demonstration of specific antibody against E. histolytica as measured by indirect hemagglutination or other reliable immunodiagnostic test (e.g., enzyme-linked immunosorbent assay).
- Probable (KDHE definition for internal data management):
  - Lab confirmed demonstration of E. histolytica-like cysts or trophozoites in stool without information on clinical symptoms.
- Suspect (KDHE definition for internal data management):
  - Positive serology in an asymptomatic person or in a person whose clinical symptoms have not yet been reported.

D. Laboratory Testing:
- Collection: Parasite (O & P) Feces Mailer. The traditional two vial system is preferred but the commercially available one vial system is accepted.
- Specimen: Feces, marble size, mixed well in 10% formalin and PVA bottles
- Timing of specimens:
  - Because parasites may be passed intermittently, the collection of three specimens within a 10-day period is recommended.
  - Specimens should be collected at least 48 hours apart and 48 hours after the receipt of any anti-parasitic therapy.
- Do not refrigerate the preserved samples.
- The State Public Health Laboratory is equipped to perform ova and parasite (O & P) examinations, if requested. Confirmatory testing to distinguish E. histolytica from morphological similar species will be done at the CDC.

- For additional information and/or questions concerning isolate submission, and laboratory kits call (785) 296-1620 or refer to online guidance at http://www.kdheks.gov/labs/lab_ref_guide.htm

E. Bioterrorism Potential: None.

F. Outbreak Definition:

- Two or more cases clustered in time and space with a common or suspected common source.

INVESTIGATOR RESPONSIBILITIES

A. Investigation Related Tasks and Activities:

1) Confirm diagnosis with appropriate medical provider.
- Before contacting the patient or family, first determine what information has been released about the patient's diagnosis.
- Obtain information that supports clinical findings in the case definition and information on the onset date of the symptoms.
  - It is important that clinical findings be obtained to confirm cases.
- Obtain information on any laboratory tests performed and results.
  - If confirmatory testing has been ordered to follow-up O&P results, request copies of laboratory reports once they are received.
- For hospitalization, obtain medical records, including admission notes, progress notes, lab report(s), and discharge summary.

2) Conduct case investigation to identify potential source of infection.
- Determine if the case is involved in a high-risk occupation or other special situation is involved (e.g., foodhandler, daycare, etc.)

3) Conduct contact investigation to locate additional cases and/or contacts.
- Assure proper screening occurs with contacts (i.e., stool samples)

4) Initiate control and prevention measures to prevent spread of disease.
- Identify transmission(s) of public health concern (e.g., public water supply) and stop transmission from such a source.
- If needed, assure that work restriction and exclusion are initiated for high-risk cases and/or contacts (e.g., foodhandler, daycare provider or attendee and direct patient care providers).

5) Report all confirmed cases to the KDHE Office of Surveillance and Epidemiology, using established methods.

B. Notifications:

1) There are no special notifications or additional reporting requirements.

2) As appropriate, use the notification letter(s) and the disease fact sheet to notify the case, contacts and other individuals or groups.

EPIDEMIOLOGY

Amebiasis has a worldwide distribution but is rare in children under the age of 5. Prevalence is higher in developing countries. In industrialized countries, risk groups include those living in institutions for the developmentally disabled, men who have sex with men, travelers and recent immigrants. In areas with good sanitation, amebic infections have a tendency to cluster in households and institutions. The estimated prevalence in the United States is 4%.

DISEASE OVERVIEW

A. Agent:

Amebiasis is a result of infection with *Entamoeba histolytica*, a protozoan parasite which is found in two forms. The trophozoite is the active form of the parasite which causes symptoms. Cysts are the infectious form which sometimes develops in the lower intestine but does not cause symptoms. Infected persons may shed both trophozoites and cysts in stool.

Molecular technologies have identified two *Entamoeba* species that are morphologically indistinguishable from *E. Histolytica – E. dispar* and *E. moshkovskii*. *E. dispar* is nonpathogenic. *E. moshkovskii* is considered nonpathogenic but its potential role in human disease is still under study.

The light microscopic examination of stool (i.e., ova and parasite or O&P) will not distinguish between *E. histolytica*, *E. dispar* or *E. moshkovskii*. In 1997 the World Health Organization recommended that the microscopic observation of E. histolytica-like trophozoites and/or cysts in a stool specimen be reported as "Entamoeba histolytica/Entamoeba dispar" unless red blood cells are seen in the cytoplasm of the trophozoites or trophozoites are seen biopsy specimens with evidence of mucosal invasion and ulceration; both features are diagnostic for E. histolytica.

B. Clinical Description:

Only about 10% to 20% of people who are infected with become sick from the infection. The symptoms often are quite mild and can include loose stools, stomach pain, and stomach cramping. Amebic dysentery is a severe form of amebiasis associated with stomach pain, bloody mucoid stools, and fever. This illness can alternate with periods of constipation or remission. Other symptoms include chronic abdominal pain, amebic granulomata in the wall of the large intestine and ulceration of the skin in the perianal region or in the penile region in active homosexuals. While rare, dissemination via the bloodstream can occur resulting in the formation of liver abscesses and, less commonly, the infection of other parts of the body, such as the lungs or brain.

C. Reservoirs:

Humans, both chronic and asymptomatic carriers, are reservoirs for amebiasis.

D. Mode(s) of Transmission:

Transmission is person-to-person through the fecal-oral ingestion of cysts. This may occur through fecal contamination of food or drink, contamination of fresh vegetables by polluted water or sexual exposure involving anal contact.

E. Incubation Period:
Variable from a few days to months, occasionally years; commonly 2-4 weeks.

F. Period of Communicability:
The disease is communicable for as long as an infected person excretes *E. histolytica* cysts, which may go on for years. Asymptomatically infected persons tend to excrete a much higher proportion of cysts and therefore more likely to transmit infection than persons who are acutely ill as they tend to excrete trophozoites. Trophozoites are not considered infective as they are destroyed by the acidity of the stomach and intestinal enzymes.

G. Susceptibility and Resistance:
Susceptibility to infection is general; those harboring *E. dispar* will not develop disease. Susceptibility to reinfection has been demonstrated but is rare.

H. Treatment:
Treatment involves the elimination of the tissue-invading trophozoites as well as the cysts in the intestinal lumen.

Whenever possible, *E. histolytica* should be differentiated (i.e., PCR, EIA) from morphologically similar species and treated appropriately. *E. histolytica* infections are treated regardless of symptoms. If *E. dispar* is the only species, treatment should not be given and other causes of illness should be sought.

With only microscopic evidence in asymptomatic patients, treatment should be withheld unless there is other evidence supporting the possibility of *E. histolytica* infection.

The following regimens are recommended for infections of E. histolytic that have been confirmed or are highly suspected (Redbook 2006):

- Asymptomatic, cyst excreters: treat with a luminal amebicide such as iodoquinol, paromomycin, or diloxanide.
- Mild to moderate intestinal symptoms **or** severe intestinal symptoms (dysentery) **or** extraintestinal disease (liver abscesses): treat with metronidazole (or tinidazole) followed by a therapeutic course of a luminal amebicide (iodoquinol or paromomycin).
- Alternative therapies: Dehydroemetine followed by a therapeutic course of a luminal amebicide for patients who's treatment of invasive disease has failed or cannot be tolerated; and an alternate treatment for liver abscess is chloroquine phosphate concomitantly with metronidazole (or tinidazole) or, if necessary, dehydroemetine, followed by a therapeutic course of a luminal amebicide.

STANDARD CASE INVESTIGATION AND CONTROL METHODS

Standard investigation activities include the following:
1) Confirmation of diagnosis using case definition.
2) Collection of demographic data (birth date, county, sex, race/ethnicity)
3) Collection of clinical and additional laboratory data.

4) Determination of risk factors and transmission settings
5) Investigation of epi-links among cases (cluster, household, co-workers, etc).

Standard investigation **includes** completion of the General Investigation Form. Further investigative activity should include:

A. Case Investigation - Identify Potential Source of Infection:

Focus within the incubation period prior to symptom onset for:

- History of exposure(s), note association to:
  - History of colonic irrigation; specify date and place.
  - Exposure to a known carrier and/or persons with diarrheal illness within the incubation period; specify dates and places
  - Contact with visitors born outside the U.S. or travelled to a developing country within 6 months prior to onset; specify places and contact date.
  - Sexual contacts within incubation period.
- Travel history, with dates of exit from and reentry into Kansas
  - Include travel history with dates of travel
- Case finding and transmission setting:
  - Identify diarrheal illnesses among household members and guests, neighbors, schoolmates, and other possible transmission setting(s).
  - Residence in a facility for the developmentally disabled; note specific dates and places.
  - Attendance in daycare; note specific dates and places.
- Note occupation of the case and household members.
- If no plausible risk factors and/or transmission settings are identified, consider the restaurant/public gatherings attended and/or food history 2-6 weeks prior to onset. Use the Enteric Supplemental Form, as a resource.

B. Contact Investigation – Identify Exposed Individuals / Populations:

- A contact is defined as a household member, daycare co-attendee or worker and sexual contacts of the case.
- If the case is a foodhandler, patrons of the food establishment may be contacts if the food handling practices and/or hygiene are in question.

C. Isolation, Work and Daycare Restrictions

- K.A.R 1-28-6 for amebiasis:
  - Each infected food handler shall be excluded from that person's occupation until three negative stools have been obtained. Both the second and the third specimens shall be collected at least 48 hours after the prior specimen.
- KS Food code regulations recommend that food handlers with diarrhea, fever or vomiting be restricted from handling food or be excluded from work if they serve high risk groups until symptoms have resolved for 24 hours. (Refer to the KDHE Foodborne Illness and Outbreak Investigation Manual for further information.)
  - Workers in schools, residential programs, daycare and healthcare facilities, who feed, give mouth care or dispense medications to clients subject to the same restrictions as food handlers.

Note: Exclusion is not allowing the employee to work at the establishment. Restriction is not allowing the employee to work with food; to clean equipment, utensils or linens; or to un-wrap single-use articles in the food establishment. High risk groups are more likely to experience foodborne disease because they are immunocompromised or older adults in a facility that provides health care or assisted living services, such as a hospital or nursing home; or are preschool age children in a facility that provide custodial care, such as a daycare center.

D. Case Management, Including Follow-up of cases:

- Routine follow-up of cases is not required unless engaged in a high-risk occupation as described above.

E. Contact Management, Including Protection of Contacts:

- Household member and close contacts should have microscopic examination of stools.
- Contacts that have diarrhea and engaged in food handling shall be treated under the Isolation and Work / Daycare Restriction guidelines.
- Use of chemoprophylaxis is not advised for contact management.

F. Environmental Measures:

- None, unless a public food or water source is identified.

G. Education:

- Hand washing after bathroom use and before preparing or eating food.
- Sexual transmission may be controlled by the use of condoms by men who have sex with men.

MANAGING SPECIAL SITUATIONS

A. Outbreak Investigation:

- Notify KDHE immediately, 1-877-427-7317.
- If needed, seek reference laboratory confirmation of *E. histolytica* vs. *E. dispar* or *E. moshkovskii*.
- Investigate to determine the source and possible mode of transmission.
- Common vehicles (e.g., fresh vegetables) should be sought and applicable preventive or control measures instituted (i.e., removing the implicated food from the environment).
- Active case finding will be an important part of any investigation.

B. Daycare:

- Since amebiasis may be transmitted person-to-person through fecal-oral transmission, careful follow up on cases in a daycare setting is important.
- Children with amebiasis who have diarrhea should be excluded until after their diarrhea has resolved.
- Staff with *E. histolytica* in their stools (symptomatic or not) can remain on site, but must not prepare food or feed children until diarrhea is resolved and 3 negative stool tests are obtained (collected 48 hours apart).

C. Schools:

- Since amebiasis may be transmitted person-to-person through fecal-oral transmission, it is important to follow up on cases of amebiasis in a school setting carefully.
- Students or staff with amebiasis who have diarrhea should be excluded until after their diarrhea is resolved.
- Students or staff who handle food and have *E. histolytica* infection must not prepare food until their diarrhea is resolved and they have 3 negative stool tests. Specimens must be collected 48 hours apart.

D. Community Residential Centers:

- Actions taken in response to a case in a community residential program will depend on the type of program and the level of functioning of the residents.
- Staff members with *E. histolytica* infection who are considered food handlers should not work until their diarrhea is resolved.
- Staff members with *E. histolytica* infection who give direct patient care (i.e., feed patients, provide oral care, dispense medications, etc.) are considered food handlers and are subject to food handler restrictions.
- In long-term care facilities, residents with *E. histolytica* should be placed on standard enteric precautions until their symptoms subside and they have 3 negative stool cultures for E. histolytica collected 48 hours apart.
- In residential facilities for the developmentally disabled, staff and clients with amebiasis must refrain from handling or preparing food for other residents until their diarrhea has subsided and they have 3 negative stool samples collected 48 hours apart.

DATA MANAGEMENT AND REPORTING TO THE KDHE

A. Organize, collect and report data with the "General Investigation Form(s)" and, if used, the "Enteric Supplemental Form".

B. Report data electronically via KS-EDSS or by fax, include:

- At a minimum, data collected during the investigation that helps to confirm or classify a case.
- All information collected on the General Investigation and supplemental form(s).

Note: Amebiasis is a notifiable disease in Kansas but is not reported to the CDC.

Laboratory reports demonstrating *E. histolytica*-like cysts or trophozoites in stool are initially reported in the KS-EDSS as "Amebiasis", case status "Probable". Clinical information collected locally will determine if the case is confirmed, based on the CDC case definition.

Because there are other conditions that may result in symptoms of amebiasis and the non-pathogenic *E. dispar* and *E. moshkovskii* are morphologically similar to *E. histolytica*, the following instances will result in a case being classified as "not a case":

- Further testing reveals that the cysts and trophozoites are *E. dispar* or *E. moshkovskii*.
- Evidence that illness is the result of another etiological agent. (i.e., *Salmonella*, *Shigella*, *M. tuberculosis*, *Schistosoma mansoni*, *Balantidium coli*, inflammatory bowel disease, carcinoma, ischemic colitis, diverticulitis)

ADDITIONAL INFORMATION / REFERENCES

A. Treatment / Differential Diagnosis: American Academy of Pediatrics. 2006 Red Book: Report of the Committee on Infectious Disease, 27th Edition. Illinois, Academy of Pediatrics, 2006.

- Pritt BS, Clark CG. Amebiasis. Mayo Clin Proc. 2008; 83(10):1154-1160. http://www.mayoclinicproceedings.com/content/83/10/1154.full
- WHO/PAHO/UNESCO report: a consultation with experts on amoebiasis: Mexico City, Mexico 28-29 January, 1997. Epidemiol Bull. 1997; 18(1):13-14. http://www.paho.org/english/sha/epibul_95-98/be971amo.htm

B. Epidemiology, Investigation and Control: Heymann. D., ed., Control of Communicable Diseases Manual, 18th Edition. Washington, DC, American Public Health Association, 2004.

C. Case Definitions: CDC Division of Public Health Surveillance and Informatics, Available at: http://www.cdc.gov/ncphi/disss/nndss/casedef/case_definitions.htm

D. Kansas Regulations/Statutes Related to Infectious Disease: http://www.kdheks.gov/epi/regulations.htm

E. KDHE Foodborne Illness and Outbreak Investigation Manual: Available at: http://www.kdheks.gov/epi/download/kansas_foodborne_illness_manual.pdf

F. KDHE Foodborne Illness Resources: http://www.kdheks.gov/epi/foodborne.htm

G. Additional Information (CDC): http://www.cdc.gov/health/default.htm

Kansas Disease Investigation Guidelines

General Investigation Form

Investigation Information

Case Type: ☐Human Case ☐Non-human Case ***Disease Name:*** _____

Classification: ☐Suspect ☐Probable ☐Confirmed ***KS-EDSS Investigation ID:*** _____

Outbreak: ☐Yes ☐No ***Outbreak Name:*** _____ ***Outbreak #:*** _____

Onset Date: _____ ***Diagnosis Date:*** _____ ***Report Date:*** _____

Assigned to (Investigator): _____ ***Patient Died:*** ☐Yes ☐No ☐Unknown

Patient Information

Name Type: ☐Default/Common ☐Legal ☐Maiden ☐Nickname

Last: _____ ***First:*** _____ ***Middle:*** _____

Street: _____ ***City/State:*** _____ ***Zip:*** _____

Evening Phone #: _____ ***Daytime Phone #:*** _____

Sex: ☐Failure to Report ☐Female ☐Male ☐Other ☐Transexual ☐Unknown

Race: ☐American Indian or Alaska Native ☐Asian ☐Black or African American ☐Native Hawaiian or Other Pacific Islander ☐White ☐Unknown

Hispanic / Latino Ethnicity: ☐Yes ☐No

Date of Birth: _____ ***Age:*** _____ ***Age Unit:*** ☐Days ☐Weeks ☐Months ☐Years

Parent Information (if under 18)

Last: _____ ***First:*** _____ ***Middle:*** _____

Street: _____ ***City/State:*** _____ ***Zip:*** _____

Evening Phone #: _____ ***Daytime Phone #:*** _____

Work / Occupation or School / Grade

Worksites / School: _____

Occupations / Grade: _____

Travel History

1st Destination: _____ ***Depart Date:*** _____ ***Return Date:*** _____

2nd ***Destination:*** _____ ***Depart Date:*** _____ ***Return Date:*** _____

3rd ***Destination:*** _____ ***Depart Date:*** _____ ***Return Date:*** _____

4th ***Destination:*** _____ ***Depart Date:*** _____ ***Return Date:*** _____

Reporting Source

Title: _____ *Last Name:* _____ *First Name:* _____

Facility: _____ *County:* _____

Street: _____ *City/State:* _____ *Zip:* _____

Phone #: _____ *E-mail:* _____

Primary or Attending Physician

Title: _____ *Last Name:* _____ *First Name:* _____

Facility: _____ *County:* _____

Street: _____ *City/State:* _____ *Zip:* _____

Phone #: _____ *E-mail:* _____

Hospital Information

Hospitalized: ☐Yes ☐No *Patient Status Date:* _____

Hospital Name: _____ *Hospital City:* _____

Date Hospitalized: _____ *Number of Days Hospitalized:* _____

Notes

Supplemental Laboratory Report Form

Lab Reports

Laboratory Name: _____ ***Lab Report Date:*** _____

Ordering Provider Name: _____ ***Phone:*** _____ ***Facility:*** _____

Specimen Accession Number: _____ ***Specimen Collection Date:*** _____

Organism Name: _____ ***Organism Species:*** _____

Organism Serogroup: _____ ***Organism Serotype:*** _____

PFGE Results

Pattern 1 ***KS:*** _____ ***Other State:*** _____ ***CDC:*** _____

Pattern 2 ***KS:*** _____ ***Other State:*** _____ ***CDC:*** _____

Pattern 3 ***KS:*** _____ ***Other State:*** _____ ***CDC:*** _____

Additional Results Information

Reported Test Name:	*Coded Result:*	*Text Result:*	*Numeric Result:*	*Comments:*

Supplemental Contact Form

Contacts

Last: _____ ***First:*** _____ ***Middle:*** _____

Street: _____ ***City/State:*** _____ ***Zip:*** _____

Evening Phone #: _____ ***Daytime Phone #:*** _____ ***E-mail:*** _____

Sex: ☐Failure to Report ☐Female ☐Male ☐Other ☐Transexual ☐Unknown

Race: ☐American Indian or Alaska Native ☐Asian ☐Black or African American ☐Native Hawaiian or Other Pacific Islander ☐White ☐Unknown

Hispanic / Latino Ethnicity: ☐Yes ☐No

Date of Birth: _____ ***Age:*** _____ ***Age Unit:*** ☐Days ☐Weeks ☐Months ☐Years

Worksites / School: _____

Occupations / Grade: _____

Exposure Information

Contact Type: ☐Household ☐Sexual ☐Other: _____ ***Partner / Cluster Code:*** _____

Date of First Exposure: _____ ***Date of Last Exposure:*** _____ ***Frequency:*** _____

Nature of Exposure: _____ ***Comments:*** _____

Testing and Treatment Information

Clinic Code: _____ ***Examination Date:*** _____

Examination Test: _____ ***Examination Result:*** _____

Prophylaxis/empiric treatment date: _____ ***Drug / Dosage:*** _____

Provider (Name / Facility): _____

Disposition and Diagnosis Information

Initiation Date: _____ ***Disposition Date:*** _____ ***Disposition:*** _____

Diagnosis: _____ ***Referral Type:*** ☐Patient ☐Provider ***Post-test Counseled :*** ☐Yes ☐No

Currently Assigned To: _____ ***Follow-up Date:*** _____

Risk Factors

Pregnant: ☐Yes ☐No ***If Yes, # of Weeks:*** _____

Risk factors for complications in contact: ☐None ☐Pregnant Woman ☐HIV Seropositive ☐Unimmunized ☐Index case is a super-spreader

☐Child younger than 5 ☐Age > 65 ☐Otherwise immunosuppressed (s/p transplant, high dose steroids, etc)

Enteric Disease Supplemental Form

Kansas Department of Health and Environment

Epidemiologic Case History

Condition

- ○ *Calicivirus/Norwalk-like virus (norovirus)*
- ○ *Campylobacter Infection (Campylobacter spp.)*
- ○ *Cryptosporidiosis (Cryptosporidium parvum)*
- ○ *Enterohemorrhagic Escherichia coli (EHEC)*
- ○ *Enterohemorrhagic Escherichia coli O157:H7*
- ○ *Enterohemorrhagic Escherichia coli shiga toxin positive (not serogrouped)*
- ○ *Enterohemorrhagic Escherichia coli shiga toxin positive (serogroup non-0157)*
- ○ *Giardiasis (Giardia lamblia)*
- ○ *Salmonellosis (Salmonella spp.)*
- ○ *Shigellosis (Shigella spp.)*
- ○ *Cyclosporiasis (Cyclospora cayetanensis)*
- ○ *Hepatitis A*
- ○ *Listeriosis (Listeria monocytogenes)*

* indicates required fields

Case Type*

○ *Human Case* ○ *Non Human Case*

Classification*

○ *Confirmed* ○ *Not a Case* ○ *Probable* ○ *Suspect* ○ *Deleted* ○ *Unknown*

Supplemental Form Status

○ *Not Done* ○ *Form Complete* ○ *Form in Progress* ○ *Form Approved* ○ *Form Sent to CDC*

Report Date*

mm/dd/yyyy

Date Investigation Started

mm/dd/yyyy

Patient Demographic Information

* indicates required fields

Last Name*	First Name*	Middle Name	Name Type*	Age

Age Unit

○ *Days* ○ *Weeks* ○ *Unknown* ○ *Months* ○ *Years*

Date of Birth
mm/dd/yyyy

Race*
(Check all that apply)

☐ *American Indian or Alaska Native* ☐ *Asian* ☐ *Black or African American*
☐ *Native Hawaiian or Other Pacific Islander* ☐ *White* ☐ *Unknown*

Ethnicity*

○ *Hispanic or Latino* ○ *Not Hispanic or Latino* ○ *Unknown*

Sex*

○ *Failure to Report* ○ *Female* ○ *Male* ○ *Other* ○ *Transexual* ○ *Unknown*

Street Address

City	County	State	Zip

Evening Phone
###-###-####

Daytime Phone
###-###-####

Occupation

High Risk Potential:
(Check all that apply)

☐ *Contact to a confirmed case*_____ ☐ *Contact to a suspected case*_____
☐ *Daycare attendee*_____ ☐ *Food handler*_____
☐ *Direct patient care worker*_____ ☐ *Institutional resident or staff*_____
☐ *Daycare worker*_____ ☐ *Animal handler*_____
☐ *Other*_____

If enrolled in day care, please complete the information below.

Name of Facility

Evening Phone
###-###-####

Street Address

City

County	State	Zip

Person Providing Report

Name of Reporting Facility*

Clinical and Laboratory Data

Individual diagnosed with

○ *Hemolytic Uremic Syndrome (HUS)* ○ *Thrombotic Thrombocytopenic Purpura (TTP)*

Was a stool specimen collected?

○ *Yes* ○ *No*

Diarrhea?	Number of Stools	Blood in Stool?	Vomiting?
○ *Yes* ○ *No* ○ *Unknown*	○ *0 - 2* ○ *3 - 10* ○ *11 and above*	○ *Yes* ○ *No* ○ *Unknown*	○ *Yes* ○ *No* ○ *Unknown*

Nausea?	Abdominal Cramps?	Muscle Ache?	Other Symptoms?
○ *Yes* ○ *No* ○ *Unknown*	○ *Yes* ○ *No* ○ *Unknown*	○ *Yes* ○ *No* ○ *Unknown*	○ *other*_____

What was the first Symptom	Date of Onset	Time of Onset
	mm/dd/yyyy	

Clinical and Laboratory Data cont.

Fever?
○ *Yes* ○ *No* ○ *Unknown*

If Yes, specify highest temperature:

Physician Information

Was a physician consulted for this illness?
○ *Yes (please complete the information below)* ○ *No*

Name of physician:

Evening Phone
###-###-####

Street Address

City

County

State

Zip

Antibiotic Information

Was case treated with antibiotics anytime in the 14 days prior to illness?
○ *Yes* ○ *No* ○ *Unknown*

Type of treatment/antibiotic

Reason for taking

Date started
mm/dd/yyyy

Date completed
mm/dd/yyyy

Was case treated with antibiotics for this illness?
○ *Yes* ○ *No* ○ *Unknown*

Type of treatment:

Date Started:
mm/dd/yyyy

Date completed:
mm/dd/yyyy

Was organism resistant to antibiotics?
○ *Yes* ○ *No* ○ *Unknown*

If yes, specify resistance pattern:

Is the patient on any medication or receiving any treatment which may suppress their immune system (i.e. Corticosteroids or Cancer Chemotherapy)?
○ *Yes* ○ *No* ○ *Unknown*

If yes please specify medication or treatment:

Did patient recover?
○ *Yes* ○ *No* ○ *Unknown*

Recover Date
mm/dd/yyyy

Recover Time

Exposure/Transmission

Did anyone else (in your family ..) recently have similar symptoms?
○ *Yes (please complete below)* ○ *No* ○ *Unknown*

Name	Age	Sex	Relationship to Case	Occupation	Symptoms	Date of Onset
						mm/dd/yyyy

Any restaurant, commercial food establishments, or group gatherings visited within the 7 days prior to onset of illness?
○ *Yes (please complete below)* ○ *No* ○ *Unknown*

Name of Establishment	City, County, State	Foods eaten	Date of Exposure
			mm/dd/yyyy

Travel History

Did the patient Travel prior to the onset of illness?

○ *Yes* ○ *No* ○ *Unknown*

If yes, please complete below:

Where:	**Departure Date:** mm/dd/yyyy	**Return Date:** mm/dd/yyyy
Where:	**Departure Date:** mm/dd/yyyy	**Return Date:** mm/dd/yyyy

Water Exposure

Possible water sources:
(Check all that apply)

☐ *Municipal Water System*_____ ☐ *Bottled Water*_____ ☐ *Private Well*_____

☐ *Rural Water System*_____ ☐ *Other (specify):*_____

Did patient drink water from other than a treated municipal system (i.e., stream, well)?

○ *Yes* ○ *No* ○ *Unknown*

Other Possible Exposure Information

Was there contact with pets or animals within 7 days prior to onset?

○ *Yes* ○ *No* ○ *Unknown*

If yes, please indicate below:
(Check all that apply)

☐ *Caged Birds*	☐ *Cats*	☐ *Cattle*	☐ *Chickens*	☐ *Dogs*	☐ *Ducks*
☐ *Frogs*	☐ *Goats*	☐ *Guinea Pigs*	☐ *Hamsters*	☐ *Horses*	☐ *Lizards*
☐ *Mice*	☐ *Parakeets*	☐ *Pigeons*	☐ *Pigs*	☐ *Poultry*	☐ *Rabbits*
☐ *Rats*	☐ *Sheep*	☐ *Snakes*	☐ *Turkeys*	☐ *Turtles*	☐ *Other*_____

Other Exposure Information

Other Birds? ○ *Yes* ○ *No* ○ *Unknown*	**If yes, please specify**	**Other Reptiles?** ○ *Yes* ○ *No* ○ *Unknown*	**If yes, please specify**
Other Animals? ○ *Yes* ○ *No* ○ *Unknown*		**If yes, please specify**	

Were any of these animals ill near the time of onset

○ *Yes* ○ *No* ○ *Unknown*

If yes, please describe:

Where were the animals located?
(Check all that apply)

☐ *Home* ☐ *Farm* ☐ *School* ☐ *Pet Store* ☐ *Zoo* ☐ *Petting Zoo* ☐ *Other*_____

Other Possible Exposure Information cont.

Within 7 days prior to onset of illness, did the patient participate in:

Activity	Participation	Date	Location
		mm/dd/yyyy	
Outdoor Activities			
Swimming			
Chlorinated Pool			
Wading Pool			
River/Lake/Pond			

Food History

Did case eat any of the following within 7 days prior to the onset of illness?

Food Product	Consumed	City, County, State	Variety or Brand(s)	Supplier	Supplier City
1. Chicken					
2. Hamburger					
3. Sausage					
4. Hot Dogs					
5. Lunch Meat					
6. Eggs					
7. Milk raw					
8. Milk past.					
8. Fresh juice					
10. Fresh berries					
11. Fresh melon					
12. Other fresh fruit					
13. Lettuce					
14. Alfalfa Sprouts					

Other fresh vegetables	Other Food Item 1	Other Food Item 2

At what store(s) do you regularly shop for groceries?

Supporting Materials

Supporting Materials are available under attachments:

CLICK HERE TO VIEW ATTACHMENTS

Then double click on the document to open.

Other Options to view attachments:

Go to <View>; <Navigation Pane>; <Attachments>

– OR –

Click on the "Paper Clip" icon.