

Protocol for Investigation of Possible Foodborne Illness at UCR

Purpose

Foodborne illness is a serious public health problem. Centers for Disease Control (CDC) estimates that each year 76 million people get sick, more than 300,000 are hospitalized, and 5,000 die as a result of foodborne illnesses. Primarily the very young, the elderly, and the immunodeficient are affected. Recent changes in human demographics and food preferences, changes in food production and distribution systems, microbial adaptation, and lack of support for public health resources and infrastructure have led to the emergence of new and traditional foodborne diseases. In order to determine the cause of a possible outbreak of foodborne illness on the UCR campus, an organized plan of response must be coordinated between Dining Services, Campus Health Center (CHC) and Environmental Health and Safety (EH&S).

This protocol details steps that must be taken to ensure discovery of the cause of the outbreak. The primary tool to determine the cause of a possible foodborne illness is the food history. The food history is a list of all foods eaten by the subject for the time period prior to becoming ill. It is very important to record the food history as quickly as possible before the subject can't be contacted or his/ her memory fades.

This protocol does not provide guidance diagnosis of a foodborne illness. For information on the diagnosis and treatment of foodborne illness, please see: **Diagnosis and Management of Foodborne Illnesses** A Primer for Physicians and Other Health Care Professionals; published by the CDC and available at <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5304a1.htm>.

Discovery and Notification of Potential Foodborne Illness

Potential cases are most likely to be discovered at different locations:

If the subject reports to dining services or the CHC during normal business hours, please notify EH&S, Environmental Health at (951)827-4244 for recording of food history.

If discovery occurs after normal business hours, please use the following questionnaire to take a food history report. After taking the questionnaire, please fax to EH&S at (951) 827-5122. If the outbreak is over 15 people, please contact police dispatch to have a representative from EH&S return to campus to take food histories.

Standard Foodborne Disease Outbreak Case Questionnaire

Introductory Note

This questionnaire is an adaptation of a standardized questionnaire developed by the Minnesota Department of Health. It is intended for use as a template for investigating foodborne disease outbreaks. The content or format may require modification in accordance with the circumstances of a particular outbreak. Aspects of the questionnaire you may wish to customize include:

1. If you suspect a food item that does not appear in this questionnaire, add questions about this food.
2. If a pathogen has been identified, consider adding or altering clinical questions and specifying the incubation period accordingly.
3. Decide how to code onset times when respondents give nonspecific responses such as "morning" or "am."

Interviewer name: _____

Date of Interview: _____

Demographics/ Introduction

1. Pt. Name:	DOB: / /	Age:
2. Address:	Home phone:	Work Phone:
3. Parent's Name (if child): Occupation:	Work Phone:	Name and Address of Employer: Department:

Clinical Information

1. Which did you experience first? vomit <input type="checkbox"/> diarrhea <input type="checkbox"/>			
Date: / /		Time:	
2. Are you still experiencing vomit or diarrhea?			Y N
3. Date of last day of illness with vomit or diarrhea: / /		Time of last episode of vomit or diarrhea: : AM PM	
Read questions exactly as written below. Circle Y for "yes," N for "no" and DK for "don't know, can't remember, not sure" etc.			
4. Did you have:			
Nausea	Y	N	DK
Vomiting	Y	N	DK
Diarrhea	Y	N	DK
Maximum number of stools in a 24-hour period:			
Bloody diarrhea	Y	N	DK
Abdominal cramps	Y	N	DK
Fever	Y	N	DK
Chills	Y	N	DK
Headache	Y	N	DK
Body aches	Y	N	DK
Fatigue	Y	N	DK
Constipation	Y	N	DK
Other:			
5. Did you see a healthcare professional, such as a doctor or a nurse?		When? / /	
		Y	N
6. Were you hospitalized overnight? Where?		Y	N
7. Was a stool culture done? Results:		Y	N
8. Did you take any prescription medications for this illness? If yes, what medications?		Y	N
9. Did anyone in your household have a similar illness? If yes, who?		Y	N
10. Do you know of anyone else with a diarrheal illness during the past week? If yes, who?		Y	N
Phone:		When? / /	

Interviewer name: _____

Date of Interview: _____

General Information

1. Did you attend a large gathering the week before your illness? (wedding reception, showers, church events, clubs, school events, athletic events, office parties or banquets, parties, festivals, fairs) Y N

If yes, what events?

Event 1:	location:	When? / /
Event 2:	location:	When? / /
Event 3:	location:	When? / /
Event 4:	location:	When? / /

2. Do you know anyone else in your neighborhood, school, office, business, health club, church, synagogue, etc. with the same illness? Y N

If yes: Where?

How many people?

Name:	phone:
Name:	phone:
Name:	phone:

3. Did you travel anywhere during the 7 days before your illness? Y N

If yes, where?

When? / / to / /

4. If airline travel, what airline?

Outgoing flight no.	Return flight no.
Foods eaten on plane going there:	Return:
If you stayed at a resort please provide resort name:	
If cruise ship, name of ship:	Destinations:

7. Have you had contact with children in a childcare setting during the 7 days before illness? Y N

If yes, when?

Name of facility:

Location:

Phone:

Are you aware of any other illness in the daycare? Y N DK

8. During the 7 days before your illness, did you have any pets at home, have contact with household pets elsewhere, or visit a household with pets (including reptiles)? Y N

If yes, what type of pets?

If your own pets, where do you buy your pet food?

Brand:

9. Did you live on a farm, visit a farm, or visit a petting zoo in the 7 days before your illness? Y N

If yes: what kind of animal(s) did you have contact with?

When? / /

Where?

10. From what sources of water did you drink during the 7 days before your illness?

Municipal tap water	Y	N	DK
Private well water	Y	N	DK
Untreated surface water (river, pond, lake)	Y	N	DK
Bottled water	Y	N	DK
Other			

Interviewer name: _____

Date of Interview: _____

General Information - continued

11. Did you drink any untreated/raw water during the seven days before your illness? If yes, where?	Y	N
12. Did you swim during the seven days before your illness? If yes, where?	Y	N
Ocean/sea If yes: Location	Y	N
Pool If yes: Location	Y	N
Lake If yes: Location	Y	N
Pond If yes: Location	Y	N
River If yes: Location	Y	N
Other If yes: Location	Y	N
13. Where did you shop for groceries consumed the week before your illness?		
Store name:	Location:	
Store name:	Location:	
Store name:	Location:	
Store name:	Location:	

Specific Food Questions

1. In the week before your illness, did you eat any dish containing store-purchased ground beef (bulk ground beef or pre-made beef patties cooked at home)? If yes:	Y	N	DK		
Where purchased?	When?	Brand?	Type (extra lean, lean, % fat)?		
2. In the week before your illness, did you consume meat originating from any place other than a grocery store or restaurant, such as from hunting, a butcher shop, custom butchery? Where?	What?	Y	N		
3. In the week before your illness, did you make or eat any dish that involved breaking and mixing four or more eggs? If yes, where did you buy the eggs?	When?	Brand?	Y	N	DK
4. Have you done any baking that used a raw egg in the preparation? If yes, did you taste any of the uncooked batter?	Y	N	Y	N	
5. Did you drink any unpasteurized milk, or cheeses such as queso fresco made with unpasteurized milk during the week before your illness? If yes, where?	Y	N			

Interviewer name: _____

Date of Interview: _____

Restaurant Exposures

1. In the 7 days before your illness, did you eat at any of the following types of commercial food establishment?

Restaurant	Y	N	DK
Fast-food establishment	Y	N	DK
Cafeteria	Y	N	DK
Deli	Y	N	DK
Ready-to-eat food served in a supermarket or department store?	Y	N	DK
Street-vended food	Y	N	DK
Concession stand at:			
Sporting event	Y	N	DK
Snack bar	Y	N	DK
Gas station	Y	N	DK

2. Please list all such food establishments where you ate during the 7 days before you became ill.

a) Name:	Date: / /
Address:	Time:
Foods eaten:	
b) Name:	Date: / /
Address:	Time:
Foods eaten:	
c) Name:	Date: / /
Address:	Time:
Foods eaten:	
d) Name:	Date: / /
Address:	Time:
Foods eaten:	
e) Name:	Date: / /
Address:	Time:
Foods eaten:	
f) Name:	Date: / /
Address:	Time:
Foods eaten:	
g) Name:	Date: / /
Address:	Time:
Foods eaten:	

Interviewer name: _____

Date of Interview: _____

Open – Ended History

List the location of the meal and foods eaten within _____ days before onset of symptoms. [Use the incubation period applicable to the agent/disease under investigation.]

Bacillus cereus: 1-24 hours

E. coli O157:H7: 2-7 days

Staphylococcus: 30 min - 8 hrs

Campylobacter: 1-10 days

Salmonella: 0-5 days

Vibrio parahaemolyticus: 0-2 days

Cryptosporidium: 1-12 days

Shigella: 0-3 days

Viral agent: 0-3 days

If a specific agent is not suspected at the time of interview, ask about the day of illness and the four days before illness.

Days before illness onset:	Meal	Ate at Home	Ate outside of Home	Outside Location	Foods Eaten
0 (Day of illness onset) Day of Week: _____ Date: / /	Breakfast	<input type="checkbox"/>	<input type="checkbox"/>		
	Lunch	<input type="checkbox"/>	<input type="checkbox"/>		
	Dinner	<input type="checkbox"/>	<input type="checkbox"/>		
	Other	<input type="checkbox"/>	<input type="checkbox"/>		
1 (Before illness onset) Day of Week: _____ Date: / /	Breakfast	<input type="checkbox"/>	<input type="checkbox"/>		
	Lunch	<input type="checkbox"/>	<input type="checkbox"/>		
	Dinner	<input type="checkbox"/>	<input type="checkbox"/>		
	Other	<input type="checkbox"/>	<input type="checkbox"/>		
2 Day of Week: _____ Date: / /	Breakfast	<input type="checkbox"/>	<input type="checkbox"/>		
	Lunch	<input type="checkbox"/>	<input type="checkbox"/>		
	Dinner	<input type="checkbox"/>	<input type="checkbox"/>		
	Other	<input type="checkbox"/>	<input type="checkbox"/>		
3 Day of Week: _____ Date: / /	Breakfast	<input type="checkbox"/>	<input type="checkbox"/>		
	Lunch	<input type="checkbox"/>	<input type="checkbox"/>		
	Dinner	<input type="checkbox"/>	<input type="checkbox"/>		
	Other	<input type="checkbox"/>	<input type="checkbox"/>		
4 Day of Week: _____ Date: / /	Breakfast	<input type="checkbox"/>	<input type="checkbox"/>		
	Lunch	<input type="checkbox"/>	<input type="checkbox"/>		
	Dinner	<input type="checkbox"/>	<input type="checkbox"/>		
	Other	<input type="checkbox"/>	<input type="checkbox"/>		
5 Day of Week: _____ Date: / /	Breakfast	<input type="checkbox"/>	<input type="checkbox"/>		
	Lunch	<input type="checkbox"/>	<input type="checkbox"/>		
	Dinner	<input type="checkbox"/>	<input type="checkbox"/>		
	Other	<input type="checkbox"/>	<input type="checkbox"/>		
6 Day of Week: _____ Date: / /	Breakfast	<input type="checkbox"/>	<input type="checkbox"/>		
	Lunch	<input type="checkbox"/>	<input type="checkbox"/>		
	Dinner	<input type="checkbox"/>	<input type="checkbox"/>		
	Other	<input type="checkbox"/>	<input type="checkbox"/>		
7 Day of Week: _____ Date: / /	Breakfast	<input type="checkbox"/>	<input type="checkbox"/>		
	Lunch	<input type="checkbox"/>	<input type="checkbox"/>		
	Dinner	<input type="checkbox"/>	<input type="checkbox"/>		
	Other	<input type="checkbox"/>	<input type="checkbox"/>		