

Appendix B

Category B Diseases

Brucellosis (*Brucella* species)

Epsilon toxin of *Clostridium perfringens*

Food safety threats (e.g., *Salmonella* species, *Escherichia coli* O157:H7, *Shigella*)

Glanders (*Burkholderia mallei*)

Melioidosis (*Burkholderia pseudomallei*)

Psittacosis (*Chlamydia psittaci*)

Q fever (*Coxiella burnetii*)

Ricin toxin from *Ricinus communis* (castor beans)

Staphylococcal enterotoxin B

Typhus fever (*Rickettsia prowazekii*)

Viral encephalitis (alphaviruses [e.g., Venezuelan equine encephalitis, eastern equine encephalitis, western equine encephalitis])

Water safety threats (e.g., *Vibrio cholerae*, *Cryptosporidium parvum*)

Category B Diseases/Agents

Second highest priority agents include those that are moderately easy to disseminate; result in moderate morbidity rates and low mortality rates; and require specific enhancements of CDC's diagnostic capacity and enhanced disease surveillance.

This page intentionally left blank.

Table of Contents

Brucellosis.....	1
Cholera.....	9
Q-Fever.....	11
Ricin.....	18
Salmonella.....	20
Staphylococcal enterotoxin B.....	24

Fact Sheet

BRUCELLOSIS (*BRUCELLA SPECIES*)

Naturally Occurring Brucellosis

Brucellosis, also known as “undulant fever”, is a formerly common veterinary disease caused by one of six *Brucella species*. It is now rare in the United States, with 44 States, including California, being declared free of brucellosis as of June 30, 2000. Four species (*B abortus*, *B melitensis*, *B suis*, and *B canis*) are pathogenic to humans. In the United States, most of the 100 - 200 cases of human brucellosis that occur each year are associated with the ingestion of unpasteurized dairy products, primarily milk and cheese. Laboratory workers are at increased risk from inhalation exposure due to the ease of aerosolization of the organism in culture. In animals, the disease primarily involves the reproductive tract causing septic abortion and orchitis.

Bioterrorism Epidemiology

Exposure to as few as 10 – 100 organisms may result in clinical infection. Person to person transmission does not occur. Large numbers of temporally clustered persons presenting to a clinic or an emergency room with similar symptoms should be reported to the local health department immediately.

Incubation Period

The incubation period ranges from 5 to 60 days.

Clinical Manifestations

The clinical manifestations are extremely variable and include several forms. In the acute form (< 8 weeks from illness onset), the person generally presents with non-specific complaints resembling influenza, including fever, sweats, malaise, anorexia, headache, myalgia, back pain, chills, and generalized weakness. Cough and pleuritic chest pain may occur in about 20% of the cases. Gastrointestinal symptoms include anorexia, nausea, vomiting, diarrhea and constipation. In the undulant form of the disease (< 1 year), symptoms include undulant fevers, arthritis, and orchiepididymitis in males. Neurologic symptoms may occur acutely in up to 5% of cases. In the chronic form (>1 year from onset), symptoms may include chronic fatigue syndrome-like, depressive episodes, and arthritis.

Complications

Persons infected with *Brucella* have a low mortality rate but the disease can be relatively prolonged and incapacitating. The disease is systemic and may affect many organs and tissues. Ileitis, colitis, and granulomatous or mononuclear infiltrative hepatitis may occur in 45 - 65% of cases. Lumbar pain and tenderness can occur in up to 60% of cases and may be due to various osteoarticular infections of the axial skeleton. Vertebral osteomyelitis, intervertebral disc space infection, paravertebral abscess and sacroiliac infection occur in a minority of cases. Joint involvement may vary from pain to immobility and effusion. Although the sacroiliac joints are most commonly involved, the peripheral joints of the hips, knees, and ankles may be affected. Meningitis, encephalitis, peripheral neuropathy, radiculoneuropathy and meningovascular syndromes have been observed in rare instances. Behavioral disturbances and psychoses appear out of proportion to fever elevation or central nervous system disease. Endocarditis occurs in about 2% of the cases and accounts for the majority of brucellosis-related deaths.

Diagnosis

Radiological

The chest x-ray is generally normal but may show lung abscesses, single or miliary nodules, bronchopneumonia, enlarged hilar lymphadenopathy and pleural effusions.

Laboratory

The leukocyte count may be low to normal and anemia and thrombocytopenia are common. *Brucella* may be recovered from blood, bone marrow, or other tissue cultures. Rapid isolation methods (Bactec) may identify *Brucella* from the blood if the culture is maintained for a long period (30 days). The biphasic culture method for blood (Castaneda bottle) may increase the chance of recovering the microorganism. A serum agglutination test (SAT) is available to detect both IgM and IgG antibodies. A titer of 1:160 or greater is indicative of infection.

Treatment

Oral antibiotic therapy is sufficient in treating most cases of brucellosis.

Doxycycline 200 mg/day PO plus rifampin 600 mg/day PO is generally recommended for at least six weeks.

Doxycycline 200 mg/day PO plus gentamicin 3 –5 gm/kg/day IV or IM (3 divided doses) is an acceptable alternative.

Other treatments include TMP/SMX plus gentamicin, and ofloxacin plus rifampin. Long-term, triple-drug therapy with rifampin, a tetracycline, and an aminoglycoside is recommended by some experts for patients with meningoencephalitis or endocarditis.

Prophylaxis

A three to six week course of prophylactic therapy with one of the oral regimes discussed above should be considered following a bioaerosol exposure.

Isolation

Standard Precautions are recommended.

BRUCELLOSIS – QUICK REFERENCE

Bioterrorism Epidemiology:

Exposure to 10 – 100 organisms can result in clinical disease
Brucellosis is not transmitted from person to person
If Brucellosis is suspected, alert the laboratory

Incubation Period:

Average 5 – 60 days

Clinical Disease:

Symptoms are generally non-specific flu-like symptoms including fever (undulant pattern if untreated), headache, myalgias, arthralgias, back pain, sweats, chills, malaise, cough, pleuritic chest pain, anorexia, nausea, vomiting and diarrhea. Some patients may complain of malodorous sweat and a peculiar taste in mouth.

Diagnosis:

Routine laboratory tests are generally not suggestive of an infectious process.

Treatment: (See overview)

Doxycycline 200 mg/day plus rifampin 600 mg/day PO for six weeks (recommended).
Doxycycline 200 mg/day plus gentamicin 3 – 5 mg/kg/day IV or IM (3 divided doses) (alternative).

Prophylaxis: (See overview)

Isolation:

Standard Precautions

BRUCELLOSIS – FREQUENTLY ASKED QUESTIONS (FAQ)

What is Brucellosis?

The bacteria (germs) that cause brucellosis are generally transmitted (spread) to humans by contact with infected animals (cows and sheep) or by drinking unpasteurized (contaminated) milk products. If the bacteria are intentionally released into the air, they could be inhaled (breathed) into your lungs and cause flu-like symptoms.

Is brucellosis spread from person to person?

The infection is not spread from person to person.

How will I know if I was exposed to the bacteria?

It will depend on how the bacteria were released, where they were released and where you were in relation to the release site. The further away you were from the release site the less likely it will be that you were exposed.

How soon will the symptoms develop (incubation period)?

The symptoms may start from 5 - 60 days after you were exposed to the bacteria.

What are the symptoms of infection?

Not all persons exposed to the bacteria will get sick. The symptoms may include fever, headache, back pain, tiredness, chills, sweats, sore muscles, cough, pain in the lungs when you take a deep breath, loss of appetite, nausea, vomiting and diarrhea.

How is the infection treated?

If you have symptoms of the infection, your health care provider (doctor or nurse) will give you an antibiotic.

How is the infection prevented?

If the local health department determines that you were exposed to the bacteria, you will be offered an antibiotic. Even if you take the antibiotic, you may develop the infection. If any symptoms of the infection develop while you are taking the antibiotic, you should see your health care provider (doctor or nurse) immediately.

How long should I take the antibiotic?

It is important that you take the antibiotic exactly as directed. The dose and the number of treatment days will differ depending on the antibiotic prescribed. If you develop side

effects (reaction) to the antibiotic, call your health care provider (doctor or nurse) immediately. Do not give your antibiotic to another person.

What should I do if I do not have symptoms?

If you do not have any symptoms of the infection, you should continue with your routine daily activities. Please do not go to the hospital emergency room unless you are feeling sick.

How can I get more information?

The local health department will make frequent public announcements about who should receive an antibiotic, how to take the antibiotic and where you can obtain the antibiotic. It is important that you listen to the radio or television for more information.

BRUCELLOSIS – HOME CARE INSTRUCTIONS

In the event of an intentional release of the bacteria (germs) that causes brucellosis, many people may require hospitalization within a few days. Hospitals may soon become overwhelmed and unable to care for every person who seeks treatment. It may become necessary for many sick people to be cared for in their home by relatives or friends. The following information may be helpful in providing care to sick persons at home.

Wash your hands with soap and water before you eat or drink, after using the bathroom and after contact with the sick person.

Wear gloves (vinyl or latex) when you have contact with the sick person's blood and other body fluids (urine, feces, vomit, wound drainage, mucous or saliva). Wash your hands after removing the gloves. If gloves are not available, wrap plastic bags over your hands and secure with a rubber band. Discard the bags after each use and wash your hands with soap and water.

Wash the sick person's hands after using the bathroom, before eating or drinking, and after contact with pets.

If an antibiotic is recommended, give it exactly as prescribed by the doctor or nurse. If an allergic reaction develops, seek medical advice immediately.

Take the person's temperature at least twice a day. If the temperature goes above 100.4° F, give Tylenol® (if not allergic) or other medicine such as Motrin® or Advil®. Follow the instructions on the package insert. If the temperature is not controlled by the medicine, call your health care provider (doctor or nurse) or take the person to the nearest designated emergency center or hospital.

If the person is having trouble breathing, go immediately to the nearest designated emergency center or hospital.

Give the person plenty of fluids such as water or juice. Allow the person to eat solid food as tolerated.

Change the sick person's clothes and bed linens frequently especially if soiled with blood or other body fluids.

Wash soiled clothes and bed linens in warm water using any commercial laundry product.

Disinfect the bathroom and kitchen with a disinfectant such as Lysol® every day or when surfaces become soiled with blood or other body fluids.

As a caregiver, you must take care of yourself. Get plenty of rest, drink fluids frequently, and eat a healthy diet. Even if you are not taking an antibiotic, take your temperature in the morning and afternoon for 4 weeks. If you develop a fever above 100.4° F or if you have flu-like symptoms, seek medical attention immediately.

DEPARTMENT OF HEALTH AND HUMAN SERVICES
PUBLIC HEALTH SERVICE
Centers for Disease Control
Atlanta, Georgia 30333

Reported to State Health Dept		
Month	Day	Year

PERSONAL DATA

State
Case No.

BRUCELLOSIS CASE SURVEILLANCE REPORT

FIRST FOUR LETTERS OF PATIENT'S NAME □ □ □ □	AGE	SEX
---	-----	-----

ADDRESS (County/State)

CLINICAL ILLNESS AND THERAPY

Date of Current Onset:	This Onset was: 1 <input type="checkbox"/> Acute 2 <input type="checkbox"/> Insidious 9 <input type="checkbox"/> Not Stated	Duration of Current Illness: _____ Weeks	Date of Original Onset if Recurrence:	This Onset was: 1 <input type="checkbox"/> Acute 2 <input type="checkbox"/> Insidious 9 <input type="checkbox"/> Not Stated
------------------------	--	---	---------------------------------------	--

SYMPTOMS	DURATION OR SEVERITY	THERAPY
<input type="checkbox"/> Fever, Intermittent _____ <input type="checkbox"/> Fever, Constant _____ <input type="checkbox"/> Chills _____ <input type="checkbox"/> Weight Loss _____ <input type="checkbox"/> Sweating _____ <input type="checkbox"/> Body Ache _____ <input type="checkbox"/> Weakness _____ <input type="checkbox"/> Headache _____ <input type="checkbox"/> Malaise _____ <input type="checkbox"/> Anorexia _____ <input type="checkbox"/> Abscess (Bone, Joint, Muscle) _____ <input type="checkbox"/> Other (specify) _____		Type, Duration and Route of Administration of: <input type="checkbox"/> Tetracycline _____ <input type="checkbox"/> Streptomycin _____ <input type="checkbox"/> Sulfonamides _____ <input type="checkbox"/> Other (specify) _____ <input type="checkbox"/> Bed Rest (Duration) _____
REMARKS: _____		REMARKS: _____

DIAGNOSTIC TESTS

Culture	Blood	Other Specimens (specify)	Date Collected	Date Examined	Isolation Results			Species Isolated	Culture Media	Laboratory
					Pos.	Neg.	Unsat.			
1)										
2)										
3)										
4)										
Serology	Std. Tube Aggl.	Other Tests (specify)	Date Collected	Date Examined	Results (Titer, etc.)	Producer of Test Antigen	Laboratory			
1)										
2)										
3)										
4)										
Skin	Date Performed	Results		Degree of Reaction	Producer of Test Antigen	Laboratory				
		Pos.	Neg.							

*Sera positive by tube agglutination may be sent to the CDC for mercaptoethanol-resistant agglutinins test.

Type of Work or Activity at Onset:

Animal Contact within 6 Months Prior to Onset: 1 Yes 2 No 9 Unknown

If Yes, Place:

Date, From: _____ To: _____

Brucellosis Status in Animal Contacts	Commercial Establishments*				Family Owned Animals			
	Cattle		Swine	Other (specify)	Cattle		Swine	Other (Specify)
	Beef	Dairy			Beef	Dairy		
Brucellosis: Present								
Not Present								
Status Unknown								
Under Investigation								
Abortions Noted								

*Includes stockyards, slaughterhouses, packinghouses, dairies, meathandlers, etc.

USE OF MILK OR MILK PRODUCTS

Type Of Product	Pasteurized			Date of Last Consumption Prior to Onset	Source of Milk
	Yes	No	Unk.		

Exposure to Brucella Vaccine: 1 Yes 2 No If Yes, Date and Type of Exposure: _____

County Under Control Program 1 Yes 2 No If Yes, check Modified Certified (Bovine) Certified Free (Bovine) Validated (Swine)

Additional information about recrudescence cases or those with insidious onset: type of work or activity, contact with animals, species and frequency, place of contact, dates:

Signature

Title

FACT SHEET

Cholera

Description of Agent: Cholera is a bacterial infection causing severe diarrhea and fluid loss. The causal organism, *Vibrio cholerae*, is spread through water or food. IV fluids may be exhausted in a hospital or an isolated community during an epidemic.

Signs and Symptoms: The incubation period is 1-5 days. Asymptomatic to severe with sudden onset. Vomiting, abdominal distention, and pain with little or no fever followed rapidly by a profuse, watery diarrhea with a 'rice-water' appearance. Fluid losses may exceed 5 to 10 liters per day. Without treatment, death may result from severe dehydration, hypovolemia, and shock.

Diagnosis: Clinical diagnosis. Watery diarrhea and dehydration. Microscopic exam of stool samples reveals few or no red or white cells. The causal organism can be identified in stool by darkfield or phase contrast microscopy and can be grown on a variety of culture media.

Treatment: Fluid and electrolyte replacement. This often can be accomplished by the use of oral rehydration salts or diluted Gatorade™. IV fluids are needed if there is severe dehydration. Antibiotics will shorten the duration of diarrhea and thereby decrease fluid loss - tetracycline (500 mg q 6 hr x 3 days) or doxycycline (300 mg once or 100 mg q 12 hr x 3 days). There is widespread tetracycline resistance; therefore, ciprofloxacin (500 mg q 12 hr x 3 days), or erythromycin (500 mg q 6 hr x 3 days) should also be considered.

Prophylaxis: A licensed, killed vaccine is available but provides only about 50 percent protection that lasts for no more than 6 months. Vaccination schedule is at 0 and 4 weeks, with a booster every 6 months.

Decontamination: Personal contact rarely causes infection; however, enteric precautions and careful hand washing should be employed. Gloves should be used for patient contact and specimen handling. Bactericidal solutions (hypochlorite) would provide adequate decontamination.

TREATMENT PROTOCOL

Cholera

1. General:

Cholera is a bacterial infection causing severe diarrhea and fluid loss. The causal organism, *Vibrio cholerae*, is spread through water or food. When growing in the intestines, the organism releases a toxin. The toxin, not the infection itself, is the cause of diarrhea. Fluid loss through watery diarrhea is profound and may exceed 5-10 liters/day. IV fluids may be exhausted in a hospital or an isolated community during an epidemic. Without treatment, death may result from severe dehydration, hypovolemia, and shock.

2. Treatment:

- a. Evaluate the patient for dehydration and shock.
- b. Obtain IV access with a large-bore needle and run lactated Ringer's at a rate sufficient to correct volume loss and replace fluids.
- c. Telemetered EKG may provide information on electrolyte balance.
- d. Protect yourself and others from contact with diarrheal fluids; they are highly infectious.
 - (1) Gloves, aprons, and other protective garments should be worn.
 - (2) Try to contain stools, to minimize contamination of the ambulance. Blanket rolls may be used to create a dike, and plastic or other sheeting may be used to contain fluid within the dike.
 - (3) Change contaminated clothing and wash hands thoroughly.
- e. Before transporting, check for additional victims.
- f. Transport the patient to the most appropriate medical facility as directed by medical consultation.
- g. Fluid and electrolyte replacement should be undertaken and often can be accomplished by the use of oral rehydration salts or dilute Gatorade™. IV fluids are needed with severe dehydration. Antibiotics will shorten the duration of diarrhea and thereby decrease fluid loss — tetracycline (500 mg q 6 hr x 3 days) or doxycycline (300 mg once or 100 mg q 12 hr x 3 days). There is widespread tetracycline resistance; therefore, ciprofloxacin (500 mg q 12 hr x 3 days) or erythromycin (500 mg q 6 hr x 3 days) should also be considered.
- h. Personal contact rarely causes infection; however, enteric precautions and careful hand washing should be employed. Bactericidal solutions (hypochlorite) would provide adequate decontamination. Wash the ambulance interior if necessary and wipe with a 70% alcohol, dilute chlorine bleach, or other disinfectant. If practical, complete the decontamination before the next run.

State: Age: Sex:

II. CLINICAL INFORMATION

Vibrio species:

1. Date and time of onset of first symptoms:

Mo. Day Yr. (472-7)

Hour Min. am pm (478-9) (480-1) (482)

2. Symptoms and signs:

Fever temp. max. (483-5) (486) (487) (488) F (1) C (2) Yes (1) No (2) Unk. (9) Nausea Vomiting Diarrhea (max. no. stools/24 hours:) (493-494) Visible blood in stools Abdominal cramps

Headache Muscle pain Cellulitis Bullae Shock (systolic BP <90) Other (specify): (497) (498) (499) (515) (516-530) (531) (532) (533-549)

3. Total duration of illness:

(days) (550-552)

4. Admitted to a hospital for this illness? (553)

Yes (1) No (2) Unk. (9) Admission date: Mo. Day Yr. (554-559) Discharge date: Mo. Day Yr. (560-565)

5. Any sequelae? (e.g., amputation, skin graft) (566)

If YES, describe: Yes (1) No (2) Unk. (9) (567-635)

6. Did patient die? (636)

If YES, date of death: Mo. Day Yr. (637-642)

7. Did patient take an antibiotic as treatment for this illness? (643)

Yes (1) No (2) Unk. (9)

If YES, name(s) of antibiotic(s):

1. 2. 3. Date began antibiotic: Mo. Day Yr. (644-646) (647-652) (653-658) Date ended antibiotic: Mo. Day Yr. (659-661) (662-667) (668-673) (674-676) (677-682) (683-688)

8. Pre-existing conditions?

Alcoholism Diabetes Peptic ulcer Gastric surgery Heart disease Hematologic disease Immunodeficiency Liver disease Malignancy Renal disease Other Yes (1) No (2) Unk. (9) (689) (690) on insulin? (691) (692) (693) type: (694-709) (710) Heart failure? (711) (712) type: (713-728) (729) type: (730-745) (746) type: (747-762) (763) type: (764-779) (780) type: (781-796) (797) specify: (798-810)

9. Was the patient receiving any of the following treatments or taking any of the following medications in the 30 days before this Vibrio illness began?

Antibiotics Chemotherapy Radiotherapy Systemic steroids Immunosuppressants Antacids H2-Blocker or other ulcer medication (e.g., Tagamet, Zantac, Omeprazole) Yes (1) No (2) Unk. (9) (811) (812-830) (831) (832-850) (851) (852-870) (871) (872-890) (891) (892-910) (911) (912-930) (931) (932-950)

III. EPIDEMIOLOGIC INFORMATION

1. Did this case occur as part of an outbreak? (Two or more cases of Vibrio infection)

Yes (1) No (2) Unk. (9) (951) If YES, describe: (952-970)

2. Did the patient travel outside his/her home state in the 7 days before illness began?

Patient home state: City/State/Country Date Entered Mo. Day Yr. (974-1004) (1005-1010) Date Left Mo. Day Yr. (1011-1016) (1017-1047) (1048-1053) (1054-1059) (1060-1090) (1091-1096) (1097-1102)

3. Please specify which of the following seafoods were eaten by the patient in the 7 days before illness began: (If multiple times, most recent meal)

Type of seafood Clams Crab Lobster Mussels Oysters Shrimp Crawfish Other shellfish Fish Any eaten raw? Yes (1) No (2) Unk. (9) Mo. Day Yr. (1104-1109) (1110) (1111) (1118) (1119) (1120-1125) (1126) (1127) (1134) (1135) (1136-1141) (1142) (1143) (1144-1149) (1150) (1151) (1152-1157) (1158) (1159) (1160-1165) (1166) (1167-1191) (1192) (1193-1198) (1199) (1200-1225)

III. EPIDEMIOLOGIC INFORMATION (CONT.)

4. In the 7 days before illness began, was patient's skin exposed to any of the following?

A body of water (fresh, salt, or brackish water) ..	<input type="checkbox"/> Yes (1)	<input type="checkbox"/> No (2)	<input type="checkbox"/> Unk. (9)	(1226)	If YES, specify body of water location: _____ (1229-1242)
Drippings from raw or live seafood	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(1227)	
Other contact with marine or freshwater life	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(1228)	<i>If YES to any of the above, answer each:</i>
Date of exposure: Mo. Day Yr. (1250-5)					Handling/cleaning seafood .. <input type="checkbox"/> Yes (1) <input type="checkbox"/> No (2) <input type="checkbox"/> Unk. (9) (1243)
Time of exposure: Hour Min. (1256-7) (1258-9) (1260) am (1) pm (2)					Swimming/diving/wading <input type="checkbox"/> Yes (1) <input type="checkbox"/> No (2) <input type="checkbox"/> Unk. (9) (1244)
					Walking on beach/shore/fell on rocks/shells <input type="checkbox"/> Yes (1) <input type="checkbox"/> No (2) <input type="checkbox"/> Unk. (9) (1245)
					Boating/skiing/surfing <input type="checkbox"/> Yes (1) <input type="checkbox"/> No (2) <input type="checkbox"/> Unk. (9) (1246)
					Construction/repairs <input type="checkbox"/> Yes (1) <input type="checkbox"/> No (2) <input type="checkbox"/> Unk. (9) (1247)
					Bitten/stung <input type="checkbox"/> Yes (1) <input type="checkbox"/> No (2) <input type="checkbox"/> Unk. (9) (1248)
					Other: (specify) <input type="checkbox"/> Yes (1) <input type="checkbox"/> No (2) <input type="checkbox"/> Unk. (9) (1249)

● If skin was exposed to water, indicate type: (1276)

Salt (1) Brackish (3) Unk. (9)
 Fresh (2) Other (8) (specify): _____ (1277-1284)

Additional comments: _____

● If skin was exposed, did the patient sustain a wound during this exposure, or have a pre-existing wound? (choose one): (1291)

YES, sustained a wound. (1) YES, had a pre-existing wound. (2) YES, uncertain if wound new or old. (3) NO. (4) Unk. (9)

If YES, describe how wound occurred and site on body :

(Note: Skin bullae that appear as part of the acute illness should be recorded in section II, Clinical Information, only).

If isolate is *Vibrio cholerae* O1 or O139 please answer questions 5 - 8.

5. If patient was infected with *V. cholerae* O1 or O139, to which of the following risks was the patient exposed in the 4 days before illness began:

Raw seafood	<input type="checkbox"/> Yes (1)	<input type="checkbox"/> No (2)	<input type="checkbox"/> Unk. (9)	(1321)	Other person(s) with cholera or cholera-like illness	<input type="checkbox"/> Yes (1)	<input type="checkbox"/> No (2)	<input type="checkbox"/> Unk. (9)	(1324)
Cooked seafood	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(1322)	Street-vended food	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(1325)
Foreign travel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(1323)	Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(1326)

(specify): _____ (1327-1350)

6. If answered "yes" to foreign travel (question III. 5), had the patient been educated in cholera prevention measures before travel?

Yes (1) No (2) Unk. (9) (1351)

If YES, check all source(s) of information received:

Pre-travel clinic (1352) Friends (1355) Travel agency (1358)
 Airport (departure gate) (1353) Private physician (1356) CDC travelers' hotline (1359)
 Newspaper (1354) Health department (1357) Other (specify): (1360) _____ (1361-1400)

7. If answered "yes" to foreign travel (question III. 5), what was the patient's reason for travel? (check all that apply)

To visit relatives/friends (1401) Other (specify): (1405) _____ (1406-1426)
 Business (1402)
 Tourism (1403) Unk. (1427)
 Military (1404)

8. Has patient ever received a cholera vaccine?

Yes (1) No (2) Unk. (9) (1428)

(If YES, specify type most recently received):

Oral (1429) Parenteral (1430)

Most recent date: Mo. Day Yr. (1431-1436)

If domestically acquired illness due to any *Vibrio* species is suspected to be related to seafood consumption, please complete section IV (Seafood Investigation).

ADDITIONAL INFORMATION or COMMENTS

Person completing section I - III: _____ Date: Mo. Day Yr. (1437-1442)

Title/Agency: _____ Tel.: () _____

CDC Use Only
 Comment: (1444-1454) Source: (1443)

Syndrome: (1455)

CDC Isolate No. _____ (1456-1463)

IV. SEAFOOD INVESTIGATION SECTION

For each seafood ingestion investigated, please complete as many of the following questions as possible. (Include additional pages section IV if more than one seafood type was ingested and investigated.)

1. Type of seafood (e.g., clams): _____ Date consumed: Mo. Day Yr. Time consumed: Hour Min. Amount consumed: _____

If patient ate multiple seafoods in the 7 days before onset of illness, please note why this seafood was investigated (e.g., consumed raw, implicated in outbreak investigation): _____

2. How was this fish or seafood prepared? (1513) Raw (1) Baked (2) Boiled (3) Broiled (4) Fried (5) Steamed (6) Unk. (9) Other (8) (specify): _____

3. Was seafood imported from another country? Yes (1) No (2) Unk. (9) If YES, specify exporting country if known: _____

4. Was this fish or shellfish harvested by the patient or a friend of the patient? Yes (1) No (2) Unk. (9) (If YES, go to question 12.)

5. Where was this seafood obtained? (1556) (Check one) Oyster bar or restaurant (1) Seafood market (4) Unk. (9) Truck or roadside vendor (2) Other (8) Food store (3) 6. Name of restaurant, oyster bar, or food store: Tel.: () Address: _____

7. If oysters, clams, or mussels were eaten, how were they distributed to the retail outlet? (1591) Shellstock (sold in the shell) (1) Shucked (2) Unk. (9) Other (8) (specify): _____

8. Date restaurant or food outlet received seafood: Mo. Day Yr. 9. Was this restaurant or food outlet inspected as part of this investigation? Yes (1) No (2) Unk. (9)

10. Are shipping tags available from the suspect lot? (1618) Yes (1) No (2) Unk. (9) 11. Shippers who handled suspected seafood: (please include certification numbers if on tags)

12. Source(s) of seafood: _____

13. Harvest site: Date: Mo. Day Yr. Status: Approved (1) Conditional (3) Prohibited (2) Other (8) (specify): _____

14. Physical characteristics of harvest area as close as possible to harvest date: Result Date Measured Mo. Day Yr. Maximum ambient temp. Surface water temp. Salinity (ppt) Total rainfall (inches in prev. 5 days) Fecal coliform count

15. Was there evidence of improper storage, cross-contamination, or holding temperature at any point? Yes (1) No (2) Unk. (9) If YES, specify deficiencies: _____

Person completing section IV: Date: Mo. Day Yr. Title/Agency: Tel.: ()

Fact Sheet

Q FEVER (COXIELLA BURNETII)

Naturally Occurring Q Fever

Q fever caused by the rickettsia, *Coxiella burnetii*, commonly infects animals such as cattle, sheep, and goats. Other mammals, birds, and ticks are also reservoirs. Animals do not develop clinical disease but can shed large numbers of organisms in placental tissue and in body fluids including milk, urine, and feces. Reactivation of infection occurs in female mammals during pregnancy, and high concentrations of *C. burnetii* are found in the placenta. Humans acquire the disease by inhalation of *C. burnetii* that have been aerosolized from environmental reservoirs such as hay, straw, manure, dust, or dirt contaminated during birth, directly from aerosols from newborn animals or the placenta during birth, and from consumption of raw milk. Sexual transmission has been demonstrated in mice. Human-to-human transmission has occurred following contact with an infected parturient woman and has been suspected to occur by direct aerosol transmission during procedures such as autopsies. Transmission via blood transfusion has occurred.

Bioterrorism Epidemiology

A single inhaled organism may produce clinical illness in some persons. Following a bioaerosol release, air samples may be positive for up to two weeks and viable organisms may be re-aerosolized into the environment from contaminated soil for up to 150 days. Significant numbers of persons who present to a clinic or an emergency room with a non-specific febrile illness associated with pulmonary symptoms should be reported to the local health officer immediately.

Incubation Period

The incubation period is from 2 – 14 days.

Clinical Manifestations

As a bioterrorism agent, Q fever would cause symptoms similar to naturally occurring disease. Q fever is generally a self-limiting, febrile disease lasting 2 – 14 days. Prominent symptoms include fever and severe headache. Other symptoms may include fatigue, chills, sweats, myalgias, nausea, vomiting, diarrhea, and pleuritic chest pain. Pneumonia occurs in about one half of persons infected with Q fever. Pneumonia can be atypical, rapidly progressive or present with fever but no pulmonary symptoms. Physical examination of the chest may be normal. About 33% of persons infected with Q fever develop acute hepatitis with jaundice. Splenomegaly may also be present.

Complications

Complications may include acute hepatitis in the absence of pulmonary symptoms, culture-negative endocarditis, aseptic meningitis, encephalitis, and osteomyelitis.

Differential Diagnosis

Other organisms to consider include *Mycoplasma pneumoniae*, *Legionella pneumophila*, *Chlamydia psittaci*, and *Chlamydia pneumoniae*. More progressive forms of pneumonia may resemble bacterial pneumonia, tularemia, or plague.

Diagnosis

Radiological

Chest x-ray abnormalities may include pleural effusions, consolidation, atelectasis, hilar adenopathy, non-segmental and segmental pleural-based opacities, and multiple rounded opacities.

Laboratory Diagnosis

Leukocytosis is present in about one-third of infected persons. Routine bacterial cultures of the blood and sputum are generally negative. The hepatic transaminase levels may be elevated 2 – 3 times normal however the bilirubin is generally normal. The complement fixation (CF) test is diagnostic if there is a fourfold rise in titer between the acute and convalescent serum samples.

Treatment

Although most cases of Q fever resolve without antibiotic treatment, all cases of infection should be treated for at least 5 – 7 days to reduce the risk of complications such as endocarditis. The antibiotics of choice include:

Tetracycline 500 mg q 6 hours for 5 – 7 days

Doxycycline 100 mg q 12 hours for 5 – 7 days

A quinolone such as ciprofloxacin may be given in place of tetracycline or doxycycline if the former antibiotics are not tolerated.

Prophylaxis

If prophylaxis is recommended, antibiotic therapy with tetracycline, doxycycline or a quinolone should be started 8 – 12 days following initial exposure.

Isolation

Standard Precautions are recommended.

Q FEVER – QUICK REFERENCE

Any suspected or confirmed case of Q fever (*Coxiella burnetii*) must be reported to the Garrett County Health Department 301-334-7777 or 301-895-3111 immediately.

Bioterrorism Epidemiology:

Exposure to a single inhaled organism can result in clinical disease.
Person to person transmission does not occur.

Incubation Period:

Average 2 –14 days.

Clinical Disease:

Symptoms may include fever, non-productive cough, severe headache, fatigue, and myalgias. Less prominent symptoms include chills, sweats, nausea, vomiting, diarrhea and pleuritic chest pain and neurological manifestations. Pneumonia may be rapidly progressive especially in persons who are immunosuppressed.

Diagnosis:

Laboratory tests are generally unremarkable. The WBC and hepatic transaminase levels may be elevated. The bilirubin is generally normal.

Treatment: (See overview)

Tetracycline 500 mg q 12 hours for 5 –7 days
Doxycycline 100 mg q 12 hours for 5 – 7 days.

Prophylaxis: (See overview)

Antibiotics, if given too early following exposure, may delay but not prevent the onset of symptoms.

Tetracycline
Doxycycline

Isolation:

Standard Precautions

Q FEVER – FREQUENTLY ASKED QUESTIONS (FAQ)

What is Q fever?

The bacteria (germs) that cause Q fever are normally transmitted (spread) to humans by contact with infected animals or by inhaling (breathing) dust particles that have been contaminated by the manure of infected animals or by skinning killed animals such as rabbits. Ingesting contaminated raw milk can also transmit the infection. If the bacteria were intentionally released into the air they could be inhaled (breathed) into your lungs causing an infection such as pneumonia.

Is Q fever spread from person to person?

The infection is not spread from person to person.

How will I know if I was exposed to the bacteria?

It will depend on how the bacteria were released, where the bacteria were released, and where you were in relation to the release site. The further away you were from the release site the less likely it will be that you were exposed.

How soon will the symptoms develop (incubation period)?

The symptoms may start from 2 – 14 days after you were exposed.

What are the symptoms of infection?

Not all persons exposed to the bacteria will get sick. The symptoms may include fever, dry cough, severe headache, tiredness, chills, sweats, sore muscles, nausea, vomiting, diarrhea, and pain when taking a deep breath.

How is the infection treated?

If you have symptoms of the infection, your health care provider (doctor or nurse) will give you an antibiotic.

How is the infection prevented?

If the local health officer determines that you were exposed to the bacteria, you will be offered an antibiotic. Even if you take the antibiotic, you may develop the infection. If any symptoms of the infection develop while you are taking the antibiotic, you should see your health care provider (doctor or nurse) immediately.

How long should I take the antibiotic?

It is extremely important that you take the antibiotic exactly as directed. The dose and number of treatment days will differ depending on the antibiotic prescribed. If you develop side effects (reaction) to the antibiotic, call your health care provider (doctor or nurse) immediately. Do not give your antibiotic to another person.

What should I do if I do not have symptoms?

If you do not have symptoms of the infection, you should continue with your routine daily activities. Please do not go to the hospital emergency room unless you are feeling sick.

How can I get more information?

The local health officer will make frequent public announcements about who should receive an antibiotic, how to take the antibiotic and where you can obtain the antibiotic. It is important that you listen to the radio or television for more information.

Q FEVER – HOME CARE INSTRUCTIONS

In the event of an intentional release of the bacteria that cause Q fever, many people may require hospitalization within a few days. Hospitals may become overcrowded and it may become necessary for many sick people to be cared for in their home by relatives or friends. The following information may be helpful in providing care to sick persons at home.

Wash your hands with soap and water before you eat or drink, after using the bathroom, and after contact with the sick person.

Wear gloves (vinyl or latex) when you have contact with the sick person's blood and other body fluids (urine, feces, vomit, wound drainage, mucous, or saliva). Wash your hands after removing the gloves. If gloves are not available, wrap plastic bags over your hands and secure with a rubber band. Discard the bags after each use and wash your hands with soap and water. Wash the sick person's hands after using the bathroom, before eating or drinking, and after contact with pets.

If an antibiotic is recommended, give it exactly as prescribed by the doctor or nurse. If an allergic reaction develops, seek medical advice immediately.

Take the person's temperature at least twice a day. If the temperature goes above 100.4°F, give Tylenol® (if not allergic) or other medicine such as Motrin® or Advil®. Follow the instructions on the package insert. If the temperature is not controlled by the medicine, call your health care provider (doctor or nurse) or take the person to the nearest designated emergency center or hospital.

If the person is having trouble breathing, go immediately to the nearest designated emergency center or hospital.

Give the person plenty of fluids such as water or juice. Allow the person to eat solid food as tolerated.

Change the sick person's clothes and bed linens frequently especially if soiled with blood or other body fluids.

Wash soiled clothes and bed linens in warm water using any commercial laundry product.

Disinfect the bathroom and kitchen with a disinfectant such as Lysol® every day or when surfaces become soiled with blood or other body fluids.

As a caregiver, you must take care of yourself. Get plenty of rest, drink fluids frequently and eat a healthy diet. Even if you are not taking an antibiotic, take your temperature in the morning and afternoon for 2 weeks. If you develop a temperature above 100.4°F or if you have flu-like symptoms, seek medical attention immediately.

Fact Sheet

Ricin

What Is Ricin?

Ricin is a poison that can be made from the waste left over from processing castor beans.

It can be in the form of a powder, a mist, or a pellet, or it can be dissolved in water or weak acid.

It is a stable substance. For example, it is not affected much by extreme conditions such as very hot or very cold temperatures.

Where Is Ricin Found, and How Is It Used?

Castor beans are processed throughout the world to make castor oil. Ricin is part of the waste “mash” produced when castor oil is made. Amateurs can make ricin from castor beans.

Ricin has some potential medical uses, such as bone marrow transplants and cancer treatment (to kill cancer cells).

How Can People Be Exposed to Ricin?

It would take a deliberate act to make ricin and use it to poison people. Accidental exposure to ricin is highly unlikely.

People can breathe in ricin mist or powder and be poisoned.

Ricin can also get into water or food and then be swallowed.

Pellets of ricin, or ricin dissolved in a liquid, can be injected into people’s bodies.

Depending on the route of exposure (such as injection), as little as 500 micrograms of ricin could be enough to kill an adult. A 500-microgram dose of ricin would be about the size of the head of a pin. A much greater amount would be needed to kill people if the ricin were inhaled (breathed in) or swallowed.

Ricin poisoning is not contagious. It cannot be spread from person to person through casual contact.

In 1978, Georgi Markov, a Bulgarian writer and journalist who was living in London, died after he was attacked by a man with an umbrella. The umbrella had been rigged to inject a poison ricin pellet under Markov’s skin.

Some reports have indicated that ricin may have been used in the Iran-Iraq war during the 1980s and that quantities of ricin were found in Al Qaeda caves in Afghanistan.

How Does Ricin Work?

Ricin works by getting inside the cells of a person’s body and preventing the cells from making the proteins they need. Without the proteins, cells die, and eventually the whole body can shut down and die.

Specific effects of ricin poisoning depend on whether ricin was inhaled,

swallowed, or injected.

What Are the Signs and Symptoms of Ricin Exposure?

Inhalation: Within a few hours of inhaling significant amounts of ricin, the likely symptoms would be coughing, tightness in the chest, difficulty breathing, nausea, and aching muscles. Within the next few hours, the body's airways (such as lungs) would become severely inflamed (swollen and hot), excess fluid would build up in the lungs, breathing would become even more difficult, and the skin might turn blue. Excess fluid in the lungs would be diagnosed by xray or by listening to the chest with a stethoscope.

Ingestion: If someone swallows a significant amount of ricin, he or she would have internal bleeding of the stomach and intestines that would lead to vomiting and bloody diarrhea. Eventually, the person's liver, spleen, and kidneys might stop working, and the person could die.

Injection: Injection of a lethal amount of ricin at first would cause the muscles and lymph nodes near the injection site to die. Eventually, the liver, kidneys, and spleen would stop working, and the person would have massive bleeding from the stomach and intestines. The person would die from multiple organ failure.

Death from ricin poisoning could take place within 36 to 48 hours of exposure, whether by injection, ingestion, or inhalation. If the person lives longer than 5 days without complications, he or she will probably not die.

Showing these signs and symptoms does not necessarily mean that a person has been exposed to ricin.

How Is Ricin Poisoning Treated?

No antidote exists for ricin. Ricin poisoning is treated by giving the victim supportive medical care to minimize the effects of the poisoning. The types of supportive medical care would depend on several factors, such as the route by which the victim was poisoned (that is, by inhalation, ingestion, or injection). Care could include such measures as helping the victim breathe and giving him or her intravenous fluids and medications to treat swelling.

How Do We Know for Sure Whether People Have Been Exposed to Ricin?

If we suspect that people have inhaled ricin, a possible clue would be that a large number of people who had been close to each other suddenly developed fever, cough, and excess fluid in their lungs. These symptoms could be followed by severe breathing problems and possibly death.

No widely available, reliable test exists to confirm that a person has been exposed to ricin.

What Can People Do If They Think They May Have Been Exposed to Ricin?

Unintentional ricin poisoning is highly unlikely. CDC has no reports of intentional ricin

poisoning. If people think they might have been exposed to ricin, however, they should contact the regional poison control center at 1-800-222-1222.

How Can People Get More Information About Ricin?

They can contact one of the following:

Regional poison control center (1-800-222-1222)
Centers for Disease Control and Prevention

- Public Response Hotline (CDC)
 - English (888) 246-2675
 - Español (888) 246-2857
 - TTY (866) 874-2646
- [Emergency Preparedness and Response Web site \(http://www.bt.cdc.gov/\)](http://www.bt.cdc.gov/)
- E-mail inquiries: cdcresponse@ashastd.org
- Mail inquiries:

Public Inquiry c/o BPRP
Bioterrorism Preparedness and Response Planning
Centers for Disease Control and Prevention
Mailstop C-18
1600 Clifton Road
Atlanta, GA 30333

Agency for Toxic Substances and Disease Registry (ATSDR) (1-888-422-8737)

- E-mail inquiries: atsdric@cdc.gov
- Mail inquiries:
Agency for Toxic Substances and Disease Registry
Division of Toxicology
1600 Clifton Road NE, Mailstop E-29
Atlanta, GA 30333

FACT SHEET

Salmonella

Description of Agent: Several distinct bacteria within the group *Salmonella* cause diarrheal illnesses, sometimes with a septicemia. In 1984, *Salmonella typhimurium*, which causes a diarrheal illness in humans, was used by terrorists in Oregon to contaminate foods in restaurants: 720 people became ill as a result. *Salmonella* illnesses are not rare, and cannot be distinguished on the basis of clinical signs from other causes of diarrhea. The illness would typically be less profound than with cholera. Infants are at the greatest risk of severe illness and death.

Signs and Symptoms: Acute onset of headache, abdominal pain, bloody diarrhea, nausea, and sometimes vomiting 6 to 72 hours after exposure to contaminated food; incubation is usually 12-36 hours. Fever is usually present. Diarrhea and anorexia often last several days. Dehydration may be severe, especially in infants.

Diagnosis: Fecal Gram stain and culture; serologic tests are not useful. *Salmonella* is a commonly occurring disease in the U.S. with an estimated 5 million annual cases.

Treatment: For uncomplicated cases, oral rehydration therapy alone is indicated. IV fluids may be needed with severe dehydration. Antibiotics may prolong the Carrier State, but should be considered with infants, the elderly, or those with underlying illnesses. Ciprofloxacin 500 mg q 12 hr x 3 days is effective.

Prophylaxis: No immunization available.

Decontamination: Enteric precautions should be practiced. Hypochlorite and/or soap and water is effective. Destroy any remaining contaminated food. Wear gloves for patient contact and specimen handling.

TREATMENT PROTOCOL

Salmonella

1. General:

Several distinct bacteria within the group *Salmonella* cause diarrheal illnesses, sometimes with a septicemia (where organisms are also multiplying in the blood and other tissue). In 1984, *Salmonella typhimurium*, which causes a diarrheal illness in humans, was used by terrorists in Oregon to contaminate foods in restaurants: 720 people became ill as a result. *Salmonella* illnesses are not rare, and cannot be distinguished on the basis of clinical signs from other causes of diarrhea. The illness would typically be less profound than with cholera. Infants are at the greatest risk of severe illness and death. Signs and symptoms include the acute onset of headache, abdominal pain, bloody diarrhea, nausea, and sometimes vomiting 6 to 72 hours after exposure to contaminated food; incubation is usually 12-36 hours. Fever is usually present. Diarrhea and anorexia often last several days. Dehydration may be severe, especially in infants.

2. Treatment:

a. Evaluate the patient for dehydration and shock. If the patient has only mild effects, it might be practical to send him/her for medical care via private conveyance; hospitalization may not be necessary.

b. Obtain IV access with a large-bore needle and run lactated Ringer's at a rate sufficient to correct volume loss and replace fluids.

c. Telemetered EKG may provide information on electrolyte balance.

d. Protect yourself and others from contact with diarrheal fluids; they are highly infectious.

(1) Gloves, aprons, and other protective garments should be worn.

(2) Try to contain the patient's stools and to minimize contamination of the ambulance. Blanket rolls may be used to create a dike and plastic or other sheeting may be used to contain fluid within the dike.

(3) Change contaminated clothing and wash hands thoroughly.

e. For uncomplicated cases, oral rehydration therapy alone is indicated. IV fluids may be needed with severe dehydration. Antibiotics may prolong the Carrier State, but should be considered with infants, the elderly, or those with underlying illnesses. Ciprofloxacin 500 mg q 12 hr x 3 days is effective.

f. Before transporting the patient, check for additional victims.

g. Transport the patient to the most appropriate medical facility as directed by medical consultation.

h. Enteric precautions should be practiced. Hypochlorite and/or soap and water is effective. Destroy any remaining contaminated food. Wash the ambulance interior if necessary and wipe with a 70% alcohol, dilute chlorine bleach, or other disinfectant. If practical, complete the decontamination before the next run.

Case Reported by: _____

Report Date: ____/____/____ Rec'd Date: ____/____/____

Gastroenteritis Case Report Form

Maryland Department of Health & Mental Hygiene
Epidemiology & Disease Control Program

Disease Salmonellosis Campylobacteriosis Unknown
 Shigellosis Other _____

Status Sporadic Case Outbreak Unknown

Patient Data

Name Last _____ First _____

Telephone Home _____ Work _____

Address Street _____
County _____ City _____ State _____ Zip _____

Age _____ **Date of Birth** ____/____/____ **Sex** Male Female

Race White Black Hispanic
 Native American Other Non-Hispanic
 Asian (Pacific Islander) Unknown Unknown

Occupation, Student, or Situation _____

Name of Employer, School, or Day Care _____

Clinical Data

Date of Onset ____/____/____ **Time** _____ am or pm

Diarrhea Headache Cramps
 Bloody Stool Nausea Muscle Aches
 Fever _____°F Vomiting Other _____

Duration _____ **Pregnant at time of onset?** Yes No Unknown

Physician Visit Yes No If Yes, Physician Name _____

Address _____ Phone # _____

Hospitalized Yes No **Pt. ID. #** _____

Hospital Name _____

Date Admitted ____/____/____ **Date Discharged** ____/____/____

Transferred to another hospital? Yes No

Transfer Hospital Name _____

Specimen submitted when case was: Hospitalized Out Patient Unknown

Outcome: Survived Unknown
 Died Date of Death ____/____/____

Laboratory Data

Date of Collection ____/____/____

Specimen Submitted:
 Stool Blood Urine None Other (Specify) _____

Test Type: Culture Ova and Parasite Serological Other

Agent Identified:
 Salmonella Group _____ Serotype _____
 Shigella _____ Serotype _____
 Campylobacter _____ Serotype _____
 Other _____

Originating Lab Name _____

Specimen Accession ID # _____ **Phone #** _____

Was the isolate sent to the State Lab for serotyping or confirmation?
 Yes No Unknown

Travel

Did patient travel to another state or country in the 2 weeks prior to onset of symptoms? Yes No

Where _____ When _____

Animal Contact

Did patient have direct or indirect contact with any animals such as dogs, cats, birds, farm animals, turtles, lizards, snakes, rodents, etc.

() hours/days* prior to onset of symptoms? Yes No

If yes, list _____

Food History

Did patient eat any of the following within () hours/days* prior to onset of illness?

	Yes	No	Unknown
1. Eggs			
a. Cooked eggs: scrambled, fried, other _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Undercooked eggs: poached, soft scrambled, sunny side up, other _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Raw eggs: egg nog, Caesar salad, hollandaise sauce, meringue, bearnaise, other _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Raw or undercooked poultry (chicken, turkey)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Raw or undercooked red meat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Raw (unpasteurized) milk	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Homemade/unpasteurized cheese	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Raw or undercooked fish/shellfish	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Other Exposures

Within () hours/days* prior to onset of symptoms did patient:

	Yes	No	Unknown
1. Handle raw meat?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Handle raw poultry?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Have exposure to a day care or nursery?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Have a household member or sexual partner with similar symptoms?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Hike, camp, fish, or swim?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Drink from a spring, stream, or lake?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Take antibiotics in month prior to onset of illness?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Disposition

Work or school restrictions? Yes No

If yes, specify _____

Was patient advised of appropriate precautions?

Yes No

If yes, how?

Telephone Fact Sheet In Person In Writing

Food History. List the foods eaten within () hours/days* prior to onset of symptoms:

Date:	___/___/___	___/___/___	___/___/___	___/___/___
Breakfast				
Lunch				
Dinner				

Please use additional paper if necessary

Household Members. List all household contacts, even if asymptomatic; give onset if symptomatic:

Name	Age	Relationship to Case	Symptoms Y/N?	Onset of Symptoms	Lab Testing (Date Collected and Result)	Occupation/Employer, School/Grade, Day Care

Summary of Investigation. List actions taken on patients and contacts and outcome:

Name of person completing form

Date of interview

*Use the incubation period which applies to the agent/disease under investigation: e.g., *Bacillus cereus* (1-24 hours), *Campylobacter* (1-10 days, usually 2-5 days), *Cryptosporidium parvum* (1-12 days), *E. coli* O157:H7 (3-8 days, usually 3-4 days), *Salmonella* (6-72 hours, usually 12-36 hours), *Shigella* (12-96 hours, usually 1-3 days), *Staphylococcus* (30 min.- 8 hours, usually 2-4 hours), *Vibrio cholerae* (few hours - 5 days, usually 2-3 days), *Vibrio parahaemolyticus* (4-30 hours, usually 12-24 hours), *Viral agent* (24-72 hours).

For State Health Department use:

Case Control Study
 Yes No Unknown

Identified by Audit
 Yes No Unknown

Case Report Complete
 Yes No Unknown

FACT SHEET

Staphylococcal Enterotoxin B

Description of Agent: Staphylococcus enterotoxin B (SEB) is one of several toxins produced by the bacteria *Staphylococcus aureus*. SEB is a common contributor to staphylococcal food poisoning but can also be disseminated as an aerosol and inhaled.

Signs and Symptoms: From 3-12 hours after aerosol exposure, there is the sudden onset of fever, chills, headache, myalgia, and nonproductive cough. Some patients may develop shortness of breath and retrosternal chest pain. The fever may last 2 to 5 days, and the cough may persist for up to 4 weeks. Patients may also present with nausea, vomiting, and diarrhea if they swallow toxin. Higher exposure levels can lead to pulmonary edema, and rarely, death.

Diagnosis: Diagnosis is clinical. Patients present with a febrile respiratory syndrome without CXR abnormalities. Large numbers of people presenting with typical symptoms and signs of SEB pulmonary exposure would suggest an intentional attack with this toxin.

Treatment: Treatment is limited to supportive care. Artificial ventilation might be needed for very severe cases, and attention to fluid management is important.

Prophylaxis: Use of protective mask. There is currently no human vaccine available to prevent SEB intoxication.

Decontamination: Hypochlorite (bleach) and/or soap and water. Destroy any food that may have been contaminated.

TREATMENT PROTOCOL

Staphylococcus Enterotoxin B

1. General:

Staphylococcus enterotoxin B (SEB) is a substance produced by Staphylococcus aureus. SEB is common contributor to foodborne enteritis outbreaks but can also be disseminated as an aerosol and inhaled. Symptoms usually follow inhalation by 3 to 12 hours and would include sudden onset of fever, headache, chills, pain in the muscles, and a nonproductive cough. Nausea, vomiting, and watery diarrhea may be accompanied by heavy fluid losses and a feeling of profound malaise leading to incapacitation; higher doses can lead to a toxic shock syndrome and death. Reddening of the eyes is common. Overall, the mortality rate from an attack would be lower than that from many other biological agents.

2. Treatment:

- a. Evaluate the patient for dehydration and shock.
- b. Obtain IV access with a large-bore needle and run lactated Ringer's at a rate sufficient to correct volume loss and replace fluids.
- c. Telemetered EKG may provide information on electrolyte balance.
- d. Diarrheal fluids are not dangerous, but you may not know whether you are dealing with SEB or cholera or Salmonellosis. Therefore, treat diarrheal fluids as highly infectious.
 - (1) Don gloves and aprons or other protective garments.
 - (2) Try to contain stools, to minimize contamination of the ambulance. Blanket rolls may be used to create a dike, and plastic or other sheeting may be used to contain fluid within the dike.
 - (3) Change contaminated clothing and wash hands thoroughly.
- e. Treatment is limited to supportive care. Artificial ventilation might be needed for very severe cases, and attention to fluid management is important.
- f. Before transporting the patient, check for additional victims.
- g. Transport the patient to the most appropriate medical facility as directed by medical consultation.
- h. Decontaminate with hypochlorite (bleach) and/or soap and water. Destroy any food that may have been contaminated. Wash the ambulance interior if necessary and wipe with a 70% alcohol, dilute chlorine bleach, or other disinfectant. If practical, complete the decontamination before the next run.