



Infectious Disease SOP—Tularemia

Original Effective Date: 8/2008	Review / Revision Date: 7/20/17	Environmental Health Procedure: 2017.07.016
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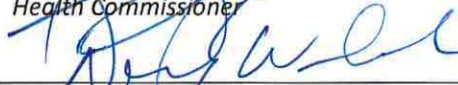
Maintenance Steward: Epidemiology Supervisor History: New Revised Archived

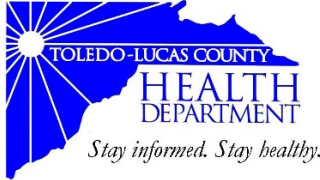
Organizational Scope:
 Full Agency Administration Community Services Environmental Health Health Services

Frequency of Review:
 Annually Biennially 5 Years As Needed Other:

Location:
S-Drive: S: → Users → Common → Policies & Procedures
Website: www.lucascountyhealth.com/employee-login/
Hardcopy: Environmental Health and Community Services Director's Office
Archived Version(s): S:\CSRP\SOGs\Archives

Requisite Signatures

<input checked="" type="checkbox"/>	 _____ Medical Director	7-20-17 _____ Date
<input checked="" type="checkbox"/>	 _____ Health Commissioner	07-20-17 _____ Date
<input checked="" type="checkbox"/>	 _____ Director of Environmental Health & Community Services	7-20-2017 _____ Date



Infectious Disease SOP— Tularemia

I. Policy

It is the policy of the Toledo-Lucas County Health Department (TLCHD) to adhere to all state, federal, and local statutes governing the management and case investigation of individual communicable disease cases and outbreaks within Lucas County.

II. Scope

This procedure/process establishes guidelines for tularemia investigations. Per the Ohio Administrative Code (OAC) 3701-3, tularemia is a Class A disease and must be reported immediately via telephone according to 3701-3-02, 3701-3-03, 3701-3-04, and 3701-3-05 of the Administrative Code.

III. Purpose

This procedure/process establishes guidelines for tularemia investigations. Per the Ohio Administrative Code (OAC) 3701-3, tularemia is a Class A disease and must be reported immediately via telephone according to 3701-3-02, 3701-3-03, 3701-3-04, and 3701-3-05 of the Administrative Code.

IV. Background

Francisella tularensis, a small, Gram-negative bacteria, causes tularemia. Depending on the strain of the bacillus, the case fatality rate is 1%-15%. For a diagnosis, the organism is isolated from lesions or blood in the first two weeks of illness. A convalescent serum should be obtained two weeks later. Proper protocol for the testing of these samples is to have it sent to ODHL to have it shipped to CDC. Hospital laboratories are usually able to do micro-agglutination tests for antibodies as well.

The source of *Francisella tularensis* is wild animals (e.g. rabbits, hares, muskrats, beavers), some domestic animals, and several common species of ticks. The disease can be found throughout North America, parts of Europe, Russia, and Japan. Ohio cases are usually more prevalent in the winter months (November-January) and are associated with hunting. Tularemia is transmitted by inoculation of skin, conjunctival sac or oropharyngeal mucosa as result of handling infected animals or through the bite of a variety of arthropods. Examples include cleaning wild animals (especially rabbits), tick bites, and ingestion of improperly cooked meat. The incubation period can range from 1 to 14 days, but is usually 3 days, and is related to the virulence of the infecting strain as well as the size of the inoculum.

F. tularensis can be used as a biological weapon in a number of ways, but an aerosol release would likely have the greatest adverse consequences.

V. Case Definition

A. Clinical Description

1. An illness characterized by several distinct clinical forms, including:
 - a. Ulceroglandular → cutaneous ulcer with regional lymphadenopathy
 - b. Glandular → regional lymphadenopathy with no ulcer
 - c. Oculoglandular → conjunctivitis with preauricular lymphadenopathy
 - d. Oropharyngeal → stomatitis or pharyngitis or tonsillitis and cervical lymphadenopathy
 - e. Intestinal → intestinal pain, vomiting, and diarrhea
 - f. Pneumonic → primary pleuropulmonary disease
 - g. Typhoidal → febrile illness without early localizing signs and symptoms

*Clinical diagnosis is supported by evidence or history of a tick or deerfly bite, exposure to tissues of a mammalian host, primarily rabbits, of *F. tularensis* or exposure to potentially contaminated water.*

B. Laboratory Criteria for Diagnosis

1. Presumptive
 - a. Elevated serum antibody titer(s) to *F. tularensis* antigen (without documented four-fold or greater change) in a patient with no history of tularemia vaccination OR
 - b. Detection of *F. tularensis* in a clinical specimen by fluorescent assay
2. Confirmatory
 - a. Isolation of *F. tularensis* in a clinical specimen OR
 - b. Four-fold or greater change in serum antibody titer to *F. tularensis* antigen

VI. Case Classification

A. Probable:

1. A clinically compatible case with laboratory results indicative of presumptive infection

B. Confirmed:

1. A clinically compatible case confirmatory laboratory results

C. Not a case:

1. This status is not generally used when reporting a case, but may be used to reclassify a report if investigation revealed it was not a case.

VII. Procedure

The procedure/process of the Infectious Disease Program is to ensure that all cases are investigated in the same format.

When a report is received, a member of the ID team will complete an interview of the contact using the CDC Tularemia Case Investigation Report, which can be found in S:\CSRP\SOGs\Tularemia. Information collected from this form should be entered into ODRS AND sent to ODH at ODH, Outbreak Response & Bioterrorism Investigation Team (ORBIT), 246 N. High St, Columbus, OH, 43215. It can also be faxed to (614)564-2456.

A. Outbreak Response

1. Call ODH ORBIT at 614-995-5599 for guidance

B. Public Health Investigation Process

1. ODRS:
 - a. Check to see if the patient is entered into ODRS. If not, enter the patient into ODRS
 - b. Key fields for ODRS reporting include:
 - i. Import status
 - ii. Date of illness onset
 - iii. All fields in the Epidemiology module
2. Investigation
 - a. Case investigation should start as soon as possible following notification.
 - b. Contact the patient's provider and/or hospital to obtain demographic information, symptoms, date of onset of symptoms, pertinent test results, occupational history, wildlife contact and travel history. The epidemiologist will determine, in consultation with ODH vector/zoonotic division, if the laboratory results and clinical symptoms indicate a confirmed or probable case.
 - i. If there are multiple cases, consider terrorist activity.
 - 1) Call JTTF/FBI Immediately if terrorist activity is suspected
 - a) Local FBI Contact: Louie Espinosa—419-779-6600 or lespinosa@fbi.gov
 - c. Once the provider and/or hospital ICP has been contacted call the patient/parent and complete the interview.
 - i. Provide education from the fact sheet on the IDCM website at <http://www.odh.ohio.gov/pdf/IDCM/tularemia.pdf>. This information is also located in S:\CSRP\SOGs\Tularemia.
 - ii. If no one answers, leave a message requesting a call back.
 - iii. Mail an informational letter requesting a callback.
 - iv. Continue to attempt phone contact with the patient for three more times in the span of 48 hours after the informational letter was sent.
 - v. Toledo Lucas County HD progress notes will be utilized to record the necessary information. Special attention should be paid to wildlife contact for 14 days prior to illness onset including rabbits, muskrats, and beavers. Ticks and deerflies can also serve to transmit the disease.
 - vi. After interview is completed, ask the patient/parent whether they would like more information. If they express an interest, ask what the best method to deliver the information would be (e.g. e-mail, mail, etc.)
 - d. Once information is obtained about case, inform the following agencies, as tularemia is a select agent reportable under 7CFR Part 331, 9 CFR Part 121, and 42 CFR Part 73:
 - i. Local FBI Contact: Louie Espinosa—419-779-6600 or lespinosa@fbi.gov
3. Treatment
 - a. Treatment consists of antibiotics (gentamicin, streptomycin, tetracycline, chloramphenicol, or ciprofloxacin).
 - b. Clinical relapses are frequent in patients treated with tetracycline and chloramphenicol.
4. Isolation/Follow Up Specimens

- a. No isolation required.
 - b. Standard precautions should be used in hospitalized patients with cutaneous or pulmonary infection.
 - c. Follow-up specimens are not indicated.
5. Prophylaxis
- a. Not commercially available
6. Contacts (Exclusion)
- a. No prophylaxis is indicated for contacts of cases. Person-to-person transmission is unlikely.
7. Notification
- a. Notify TLCHD contacts immediately after investigation with patient (in sequential order)
 - i. Supervisor of Epidemiology
 - ii. Director of Community Services and Environmental Health
 - iii. Medical Director
 - iv. Health Commissioner
 - b. Public health recommendations and interventions will be shared with the public by the PIO or to specific individuals within 6 hours of identification of the agent as determined by ODH and supervisory staff at the local health department. An OPHCS alert will be distributed within 12 hours of a positive test result as determined by supervisory local health department staff and ODH.
8. Documentation
- a. Enter information into ODRS as it is obtained.
 - b. Include a note documenting investigation, education, and intervention.

Sample: Spoke with mother by phone on [date]. EDUCATION: Reviewed disease facts, transmission, and symptoms. DISEASE COURSE: Client has history of [medical conditions] and started [symptoms] on [date]. Started [treatment] on [date]. HOUSEHOLD: HH contacts include [relationships]. All are [asymptomatic/symptomatic] [Include information about sensitive settings for HH contacts]. OCCUPATION: [job] TRAVEL HISTORY: [Include information about travel history within the past 2-3 weeks]. MAILING: Mailed fact sheet and cover letter to home address.
 - c. Include a note for each occupation, activity, or other notification and any actions taken.
9. Closing a case
- a. Ensure that all available information is entered into ODRS before closing. Close case and print record. Staple with investigation sheet and any related documents and file in the appropriate file drawer for the current year located in the CSRP office.

VIII. Appendices

None

IX. Reference/Investigation Forms

- A. Tularemia Disease Factsheet is located in S:\CSRP\SOGs\Tularemia.

- B. For additional information please refer to the ODH IDCM at <http://www.odh.ohio.gov/pdf/IDCM/tularemia.pdf>

X. Maintenance

A. Review

1. The Infectious Disease standard operating procedures are to be reviewed every other year or as needed to ensure compliance with both agency and accreditation standards.
2. If guidance/recommendations from the Centers for Disease Control, Ohio Department of Health or law changes regarding this infectious disease, TLCHD will follow the most up-to-date guidance and adjust the SOP(s) as needed.

B. Revision

1. All changes made to this SOP are to be noted on the **Record of Change**. Substantial changes will require renewed signatures from all applicable parties. This includes changes to the intent, scope, procedures, or policy statement.
2. Changes in style, format, grammar or minor error correction will not require renewed signatures but must be indicated on the Record of Change.

