

TULAREMIA

Last revised August 16, 2011

I. IDENTIFICATION

- A. **CLINICAL DESCRIPTION:** An illness caused by the bacterium *Francisella tularensis*, characterized by several distinct forms, including the following:
- Ulceroglandular: cutaneous ulcer with regional lymphadenopathy
 - Glandular: regional lymphadenopathy with no ulcer
 - Oculoglandular: conjunctivitis with preauricular lymphadenopathy
 - Oropharyngeal: stomatitis or pharyngitis or tonsillitis and cervical lymphadenopathy
 - Intestinal: intestinal pain, vomiting, and diarrhea
 - Pneumonic: primary pleuropulmonary disease
 - Typhoidal: febrile illness without early localizing signs and symptoms

Francisella tularensis is potentially a bioterrorism agent.

- B. **REPORTING CRITERIA:** Clinical diagnosis with laboratory confirmation

C. **LABORATORY CRITERIA FOR CONFIRMATION:**

1. *Confirmatory*

- Isolation of *F. tularensis* from a clinical specimen, **OR**
- Fourfold or greater change in serum antibody titer to *F. tularensis* antigen.

2. *Supportive*

- Elevated serum antibody titer(s) to *F. tularensis* antigen (without documented fourfold or greater change) in a patient with no history of tularemia vaccination **OR**
- Detection of *F. tularensis* in a clinical specimen by fluorescent assay

D. **WISCONSIN CASE DEFINITION:**

Confirmed Case: A clinically compatible illness with confirmatory laboratory results

Probable Case: A clinically compatible illness with supportive laboratory results

II. ACTIONS REQUIRED / PREVENTION MEASURES

A. **WISCONSIN DISEASE SURVEILLANCE CATEGORY II:**

Report to the patient's local health department either electronically through the Wisconsin Electronic Disease Surveillance System (WEDSS), by mail or fax using an Acute and Communicable Disease Case Report ([F-44151](#)), or by other means within 72 hours upon recognition of a case or suspected case.

B. **EPIDEMIOLOGY REPORTS REQUIRED:**

- *Electronically* – Report through WEDSS, including appropriate disease-specific tabs **OR**
- *Paper Copy* – Acute and Communicable Diseases Case Report ([F-44151](#)) **AND** CDC Tularemia Report Form:
<http://www.cdc.gov/tularemia/resources/TularemiaCaseReportForm.pdf>

C. PUBLIC HEALTH INTERVENTIONS:

In accordance with Wisconsin Administrative rule DHS 145.05, local public health should follow the methods of control recommended in the current edition of *Control of Communicable Diseases Manual*, edited by David L. Heymann, published by the American Public Health Association. Briefly:

- Source investigation by LHD – Inquire about contact with potentially infected arthropods such as ticks or biting flies, contact with potential animal hosts (especially dressing and eating wild game or contact with sick animals), and ingestion of contaminated water. Cases have been acquired by accidental aerosolization of wild animal tissue after hitting them with a power mower. Cases have also been traced to exposures in clinical microbiology laboratories.

<http://www.cdc.gov/tularemia/resources/lab/TularemiaLabExposureFactSheet.pdf>

- Patient education as needed to minimize future exposures.

D. BIOTERRORISM MEASURES: *Francisella tularensis* is considered to be a potential biowarfare/bioterrorist agent, particularly if used as an aerosol threat. As is true of plague, cases acquired by inhalation would present as primary pneumonia. Such cases require prompt identification and specific treatment to prevent fatal outcome. All diagnosed cases of pneumonia due to *F. tularensis*, especially any cluster of cases, should be reported immediately to the local and state health departments for appropriate investigations.

III. CONTACTS FOR CONSULTATION

A. LOCAL HEALTH DEPARTMENT – REGIONAL OFFICES – TRIBAL AGENCIES:

<http://www.dhs.wisconsin.gov/localhealth/index.htm>

B. BCDER / COMMUNICABLE DISEASE EPIDEMIOLOGY SECTION: (608) 267-9003

C. WISCONSIN STATE LABORATORY OF HYGIENE / BACTERIOLOGY: (608) 263-3421

IV. RELATED REFERENCES

- Heymann DL, ed. Tularemia. In: *Control of Communicable Diseases Manual*. 19th ed. Washington, DC: American Public Health Association, 2008:661-664

- Pickering LK, ed. Tularemia. In: *Red Book: 2009 Report of the Committee on Infectious Diseases*. 28th ed. Elk Grove Village, IL: American Academy of Pediatrics, 2009:708-710