

# Communicable Disease Case Reporting and Investigation Protocol **TULAREMIA**

### I. IDENTIFICATION AND DEFINITION OF CASES

- 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.
  - Pneumonic: Primary pleuropulmonary disease.
  - Typhoidal: Febrile illness without early localizing signs and symptoms.

**NOTE:** Francisella tularensis is potentially a bioterrorism agent.

# **B.** Laboratory Criteria:

#### 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, OR
- Detection of F. tularensis in a clinical specimen by PCR assay.

### C. Wisconsin Surveillance Case Definition:

- **Confirmed:** A clinically compatible case with confirmatory laboratory evidence.
- **Probable:** A clinically compatible case with supportive laboratory evidence.

### II. REPORTING

- A. **Wisconsin Disease Surveillance Category II Methods for Reporting:** This disease shall be reported to the patient's local health officer or to the local health officer's designee within 72 hours of recognition of a case or suspected case, per Wis. Admin. Code § <u>DHS 145.04 (3) (b)</u>. Report electronically through the Wisconsin Electronic Disease Surveillance System (WEDSS), or mail or fax a completed Acute and Communicable Disease Case Report (<u>F-44151</u>) to the address on the form.
- B. **Responsibility for Reporting**: According to Wis. Admin. Code § <u>DHS 145.04(1)</u>, persons licensed under Wis. Stat. ch. <u>441</u> or <u>448</u>, laboratories, health care facilities, teachers, principals, or nurses serving a school or day care center, and any person who knows or suspects that a person has a communicable disease identified in <u>Appendix A</u>.
- C. **Clinical Criteria for Reporting:** Clinically compatible illness with confirmatory or supportive laboratory evidence of infection with *F. tularensis*.
- D. Laboratory Criteria for Reporting: Any laboratory evidence of infection with *F. tularensis*.

#### III. CASE INVESTIGATION

A. **Responsibility for case investigation**: It is the responsibility of the local health department (LHD) to investigate or arrange for investigation of suspected or confirmed cases as soon as is reasonably possible. A case investigation may include information collected by phone, in person, in writing, or through review of medical records or communicable disease report forms, as necessary and appropriate.

A source investigation should be performed. 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. (See

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

# **B. Required Documentation:**

- Complete the WEDSS disease incident investigation report, including appropriate, disease-specific tabs. This
  may be facilitated by completing tularemia case report form
  (<a href="https://www.cdc.gov/tularemia/resources/tularemiacasereportform.pdf">https://www.cdc.gov/tularemia/resources/tularemiacasereportform.pdf</a>) and placing it into the WEDSS file
  cabinet
- 2. Upon completion of investigation, set WEDSS disease incident process status to "Sent to State."

### IV. PUBLIC HEALTH INTERVENTIONS AND PREVENTION MEASURES

- A. In accordance with Wis. Admin. Code § <u>DHS 145.05</u>, local public health agencies should follow the methods of control recommended in the current editions of *Control of Communicable Diseases Manual*, edited by David L. Heymann, published by the American Public Health Association, and the American Academy of Pediatrics' *Red Book: Report of the Committee on Infectious Diseases*, unless otherwise specified by the state epidemiologist.
- B. Perform patient education as needed to minimize future exposures.
- C. 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.

### V. CONTACTS FOR CONSULTATION

- A. Local health departments and tribal health agencies: https://www.dhs.wisconsin.gov/lh-depts/index.htm
- B. Bureau of Communicable Diseases, Communicable Diseases Epidemiology Section: 608-267-9003
- C. Wisconsin State Laboratory of Hygiene: 1-800-862-1013

#### VI. RELATED REFERENCES

- A. Heymann DL, ed. Tularemia. In: *Control of Communicable Diseases Manual*. 20th ed. Washington, DC: American Public Health Association, 2015: 650-654.
- B. Pickering LK, ed. Tularemia. In: *Red Book*: 2015 Report of the Committee on Infectious Diseases. 30th ed. Elk Grove Village, IL: American Academy of Pediatrics, 2015:839-841.
- C. Centers for Disease Control and Prevention website: <a href="https://www.cdc.gov/tularemia/">https://www.cdc.gov/tularemia/</a>