

## Health Advisory: Tularemia Case in Minnesota

Minnesota Department of Health Wed Jun 21 09:00 CDT 2017

### Action Steps:

**Local and tribal health departments:** Please forward to hospitals, clinics, emergency departments, urgent care centers, and convenience clinics.

**Hospitals, clinics and other facilities:** Please distribute to health care providers who treat patients presenting with new illness.

### Health care providers:

- Consider tularemia as a cause of infection in patients with fever and other compatible symptoms, particularly skin lesions and regional lymphadenopathy
- Alert laboratory staff to the suspicion for tularemia before specimen submission to ensure appropriate laboratory precautions are taken to avoid occupational exposure
- Report cases of probable or confirmed tularemia within 24 hours to MDH at 651-201-5414 or 1-877-676-5414 and call MDH for questions about testing for tularemia

### Background

A case of human tularemia was diagnosed in a 60 year-old female resident of Dakota County. Cases of tularemia in Minnesota are rare in both humans and animals, though 3 people, 12 cats and 2 rabbits were confirmed in 2016, an increase over previous years.

The most likely cause of the 60-year old woman's infection was a bite to the hand from a stray cat on May 10, 2017. On May 13, she had onset of symptoms consistent with cat bite infection. Her symptoms progressed to include headache, myalgias, worsening wound infection, regional lymphadenopathy, and fever. She was hospitalized twice, for a total of 6 days. *Francisella tularensis* was isolated from the bite wound.

### Signs, Symptoms and Diagnosis

Tularemia is a potentially serious illness that occurs naturally in the United States. It is caused by the bacterium *Francisella tularensis* and is found in wildlife, particularly rabbits, squirrels, and other rodents. Transmission most commonly occurs through tick and fly bites and contact with infected animals or their tissues. It is not transmitted person to person.

All forms of tularemia are accompanied by sudden onset of fever. Additional acute signs and symptoms include skin wound or ulcer, regional lymphadenopathy, headache, chills, joint and muscle pain, and nausea. The incubation period for tularemia is generally 3–5 days (range, 1–14 days).

Diagnosis of tularemia is confirmed via culture of *F. tularensis* from blood or affected tissues (e.g., wound exudate or lymph node tissue) or paired acute and convalescent serologies. Healthcare providers should alert laboratories to the suspicion for tularemia before specimen submission so that appropriate precautions are taken to avoid occupational laboratory exposure. Every effort should be made to collect specimens from suspect cases before starting antibiotics.

### **Treatment**

Initiate treatment of suspect cases early; do not wait for laboratory confirmation. Gentamicin or streptomycin are typically the drugs of choice for treatment of tularemia. Oral doxycycline or ciprofloxacin can be used to treat milder tularemia cases. Depending on the clinical illness and type of antibiotic used, duration of antibiotic treatment is typically 10–21 days. Doxycycline has been associated with a higher relapse rate and should be given for at least 14 days.

Ciprofloxacin is an alternative oral agent and has been used successfully to treat patients with tularemia, but is not approved by the U.S. Food and Drug Administration for this indication. The prognosis is generally good for patients treated in a timely and appropriate manner, although symptoms may not completely resolve for several weeks.

### **For More Information**

- [MDH Tularemia](http://www.health.state.mn.us/divs/idepc/diseases/tularemia/index.html) (<http://www.health.state.mn.us/divs/idepc/diseases/tularemia/index.html> )
- CDC Tularemia (<https://www.cdc.gov/tularemia/> )

A copy of this HAN is available in PDF and Word format at the MDH Health Alert Network website [www.health.state.mn.us/han](http://www.health.state.mn.us/han). The content of this message is intended for public health and health care personnel and response partners who have a need to know the information to perform their duties.