Philadelphia Department of Public Health

Division of Disease Control

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Health Advisory

Tularemia in an Area Resident

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On August 17, 2006, the Philadelphia Department of Public Health, Division of Disease Control (DDC) was notified of a case of tularemia in an area resident hospitalized in a Philadelphia facility. Tularemia is a rare, potentially serious illness caused by the bacterium *Francisella tularensis*. It occurs widely in nature and can affect animals, particularly rodents and rabbits; the infection has been detected recently in small animals in Philadelphia.

Primary clinical forms of tularemia vary in severity and presentation according to the virulence of the infecting organism, dose, and site of inoculation. Symptoms can include:

- sudden onset of fever, chills
- cough
- shortness of breath, dyspnea
- headache
- nausea or vomiting
- joint or muscle pain
- ulcers on the skin or mouth
- swollen lymph nodes
- swollen or painful eyes

The most common clinical form of tularemia is the ulceroglandular syndrome, characterized by cutaneous ulceration at the entry site, with painful regional adenopathy. Also common is the glandular syndrome, which is adenopathy without cutaneous ulceration. Pneumonia and/or pleuritis may occur as a result of inhalational exposures to *F. tularensis.* Symptoms usually appear 3 to 5 days after exposure to the bacteria, but the incubation period can range from 1 to 14 days. Tularemia is not known to be spread from person to person, and people who have the infection do not need to be isolated.

Tularemia can be acquired in multiple ways, such as being bitten by an infected tick, deerfly, or other insect; handling infected animal carcasses; eating or drinking contaminated food or water; or inhaling the bacteria. To minimize the risk of infection, persons should be sure to cook food thoroughly and to drink water from a safe source; to use a DEET-containing insect repellent on the skin; and to avoid handling animal carcasses. If contact with animal carcasses cannot be avoided, persons should wear gloves and wash hands thoroughly with soap and water after removing gloves.

Definitive diagnosis of tularemia is made through culturing the organism from respiratory secretions, wound exudates, or from biopsy specimens; it is only occasionally isolated in blood. The diagnosis can also be made by using rapid methods such as direct fluorescent antibody or polymerase chain reaction assays; however, these are not widely available. First-line therapy is parenteral streptomycin or gentamicin for 10 days.

Clinicians should be aware that tularemia occurs in the Philadelphia area, and should consider the diagnosis in patients presenting with an appropriate clinical syndrome and risk factors. Suspect or confirmed cases of tularemia must be reported immediately. DDC can help facilitate rapid diagnostic testing for *F. tularensis* through the Pennsylvania Bureau of Laboratories.

For more information or to report a case, please call 215-685-6740 during business hours or 215-686-1776 after hours.