

TULAREMIA: Health Care Information

Tularemia is an infection caused by the bacteria *Francisella tularensis*. Naturally-occurring tularemia may be transmitted to humans through handling infected rodents/lagomorphs or from the bite of arthropods, ingestion of contaminated food/water, or inhalation of infectious aerosols. Terrorist use would likely be via airborne release of an infections aerosol leading to inhalation.

Signs and Symptoms: After an inhalational exposure, an asymptomatic incubation period generally lasts 3 to 5 days (range: 1 to 14 days). This asymptomatic period is followed by the abrupt onset of **fever, chills, headache, malaise and dyspnea**. Some patients develop **bronchitis, conjunctivitis, pharyngitis/oral ulcers, lymphadenitis, pneumonia and sepsis**. Chest radiography may reveal hilar lymphadenopathy, lobar infiltrate or patchy diffuse infiltrates.

Diagnosis: In symptomatic patients, obtain samples from affected sites (e.g., conjunctiva, pharynx, sputum, lymph node aspirates) for gram stain (fluorescent-labeled antibody and PCR testing may be performed by the Regional Reference Laboratory). Obtain blood and fluid samples for culture. Local hospital laboratory personnel should be notified of a potential *Francisella tularensis* sample both for their protection and to initiate special culture conditions. Contact your local public health agency (see attached contact sheet). Asymptomatic patients who were exposed to bacteria recently may have sputum samples tested for gram stain and culture, but require no additional testing.

Decontamination: Patients who were recently exposed to airborne *Francisella tularensis* require removal of their clothing and washing of all exposed skin in soap and water. Patients who are symptomatic (i.e., exposed several days ago) do not require decontamination.

Treatment: CHECK WITH YOUR LOCAL PUBLIC HEALTH AGENCY AND THE CDC FOR UPDATES.

Symptomatic patients (adults, children or pregnant women):

Streptomycin 15 mg/kg up to 1 g IM BID (10 days) **OR**
Gentamicin* 2.5 mg/kg IM/IV TID (or 5 mg/kg IM/IV QD in adults) for 10 days

Alternatives:

Doxycycline 2.2 mg/kg up to 100 mg IV BID for 14 days **OR**
Ciprofloxacin* 15 mg/kg up to 400 mg IV BID for 10 days

* For pregnant women, Gentamicin is preferred over Streptomycin and Ciprofloxacin is preferred over Doxycycline.

Patients may be switched from IV to oral therapy when their symptoms are resolving or if their symptoms are mild. In mass casualty situations where IV/IM formulations are not available, Doxycycline (2.2 mg/kg up to 100 mg PO BID) or Ciprofloxacin (15 mg/kg up to 500 mg PO BID) may be used.

Prophylaxis: Exposed individuals should be given Doxycycline (2.2 mg/kg up to 100 mg PO BID) or Ciprofloxacin (15 mg/kg up to 500 mg PO BID) for 14 days. Close contact to exposed individuals does not require prophylaxis.

Isolation and Personal Protection: Tularemia is not spread person to person. Health care workers should use standard (body fluid) precautions only. No isolation or negative pressure is required. Patient transport does not need to be restricted; the patient does not require a mask during transport. Decontaminate environmental surfaces with 0.5% bleach solution followed 10 minutes later by a 70% alcohol solution to reduce the corrosive action of the bleach.