Q-FEVER

Agent Information: Q-Fever, a bacterial zoonosis, is caused by the rickettsia-like bacterium *Coxiella burnetii*. The bacteria are naturally occurring with cattle, sheep, and goats being the primary reservoirs, although infection has been noted in a wide variety of other vertebrates. The organisms are resistant to heat, drying, and many common disinfectants. Because of the stability of the organism and its ability to be transmitted via inhalation, the aerosol form has the potential for use in bioterrorism.

Transmission: Person-to-person transmission is rare. Infection occurs most often by inhalation of dust or aerosols derived from infected domestic animals (dried placental material, birth fluids, and excreta). Infection may also be transmitted from animals to humans by ticks. Humans are very susceptible to disease and very few organisms are required to cause infection. The incubation period is dose dependent; it is generally 2-3 weeks.

Signs and Symptoms: Only half of all infected people show signs of clinical illness. Acute Q fever is often characterized by sudden onset of one or more of the following: high fevers (up to 104-105°F), severe headache, malaise, myalgia, confusion, sore throat, chills, sweats, non-productive cough, nausea/vomiting, diarrhea, abdominal pain, and chest pain. Fever usually lasts 1-2 weeks. Following inhalation of bacteria, patients would likely present with atypical pneumonia. Q-Fever can also cause chronic symptomology with endocarditis appearing as the primary manifestation.

Decontamination: Yes, if exposure is from aerosolization and presentation is immediate.

Isolation: For inhalational exposure only.

Protective Measures: For dermal exposure, standard precautions. For inhalation, contact and droplet precautions.

Lab Samples Requested for Evaluation: Serum (red / black top tube).

Prophylaxis: Vaccine is not licensed for use in the United States.
Treatment: The treatment of choice for acute Q-Fever is Doxycycline administered for 14 days. For children and pregnant women with acute Q fever, cotrimoxazole should be used. For patients with chronic Q fever treatment of choice is a combination of doxycycline and hydroxychloroquine.

Reporting: Immediately report suspect cases to the Division of Public Health, Office of Infectious Disease Epidemiology: 1-888-295-5156 (24/7 coverage).

For additional information: Visit the CDC website: www.cdc.gov/qfever.