Occupational Health - Zoonotic Disease Fact Sheet

YERSINIA PSEUDOTUBERCULOSIS

KEY FACTS:

- Yersinia pseudotuberculosis is a rare disease and is associated with food-borne infections in humans.
- The bacteria is common in lab animals.

SPECIES: Humans, birds, rodents, rabbits, guinea pigs, mice, cats, sheep, swine, and goats.

CAUSATIVE AGENT: Pseudotuberculosis is caused by the bacteria *Yersinia pseudotuberculosis* which is a Gram-negative coccobacillus.

TRANSMISSION: Zoonotic transmission primarily occurs through ingestion of contaminated food or water. Human cases of have been reported from direct contact with infected household pets, particularly puppies and kittens. *Y. pseudotuberculosis* is ubiquitous in nature, and can be isolated from dust, soil, water, and milk.

DISEASE IN ANIMALS: *Y. pseudotuberculosis* can cause tuberculosis-like illness in animals. The symptoms may include granulomas in the spleen, liver, and lymph nodes as well as localized tissue necrosis.

DISEASE IN HUMANS: Symptoms of infection include fever and acute gastroenteritis and mesenteric lymphadenitis, which can be confused with appendicitis. In rare cases, septicemia can occur.

DIAGNOSIS: In addition to identification of the above symptoms, bacterial culture and/or molecular identification (PCR) may be used. *Please review current literature before prescribing diagnostic testing as recommendations may have changed.*

TREATMENT: *Y. pseudotuberculosis* infections are generally resolved with supportive therapy. In some cases (i.e. immunocompromised patient) a variety of antibiotic types may be used with Fluoroquinolones as the main drug of choice. Trimethoprim-sulfamethoxazole and aminoglycosides may also be effective. *Please consult your physician for treatment options as recommendations may have changed.*

PREVENTION/CONTROL: No vaccine is currently available for humans or animals, but antibiotic treatment after infection is effective in controlling the disease. To prevent and control unintended infections, use uninfected animals for research, and isolate any animals used in clinical trials. Additionally, only conduct projects in laboratories with proper engineering controls and train staff members in the proper use of required personal protective equipment when they are in spaces containing live agent.

More information on Yersinia pseudotuberculosis can be found on the Centers for Disease Control and Prevention website at: https://www.cdc.gov/yersinia/faq.html