Food Safety Hazard: Yersinia enterocolitica

Characteristics/description
Y. enterocolitica belongs to a family of rod-shaped bacteria. Other pathogenic species in this family include Y. pseudotuberculosis and Y. pestis which causes plague. Only a few strains of Y. enterocolitica cause illness in humans.

Source
The major animal reservoir for Y. enterocolitica strains that cause human illness is pigs, but other strains are found in many other animals including rodents, rabbits, sheep, cattle, horses, dogs and cats. In pigs, the bacteria are most likely to be found on the tonsils. Human infection is most often acquired by eating contaminated food, especially raw or undercooked pork products. The preparation of raw pork intestines (chitlins/chitterlings) may be particularly risky. Exposure to contaminated environments and animals (pig farms) may also be risk factors for infection.

Effects on humans
Right-sided abdominal pain, diarrhea and fever may be the predominant symptoms, which may be confused with appendicitis.

Incubation
Symptoms typically develop 4-7 days after exposure and may last 1-3 weeks or longer.

Treatment for patients
Infections appear most often in children. Uncomplicated cases of diarrhea due to Y. enterocolitica usually resolve on their own without antibiotic treatment. However, in more severe or complicated infections, antibiotics such as aminoglycosides, doxycycline, trimethoprim-sulfamethoxazole or fluoroquinolones may be useful.

Key links
Food and Agriculture Organization: “Meat Processing Hygiene for Small and Medium Producers,”
http://www.fao.org/docrep/010/a1407e/a1407e23.htm

FDA- Bad Bug Book: Yersinia enterocolitica (page 18)

Risk reduction strategies
• Avoid eating raw or undercooked pork and prepare food using hygienic methods to limit contamination of other foods.