

Yersiniosis

Reporting Obligations

Yersiniosis is designated as a disease of public health significance and is reportable under the *Ontario Health Protection and Promotion Act*. Report all suspect and confirmed cases within **one business day** to the health unit.

REPORTING FORM

Epidemiology

Aetiologic Agent:

Yersiniosis is caused by a Gram-negative Enterobacteriaceae of the genus *Yersinia*. Two species, *Y. enterocolitica* (most common in Canada) and *Y. pseudotuberculosis*, are the causative agents of yersiniosis.

Clinical Presentation:

Y. enterocolitica infections typically manifest as fever and diarrhea in young children. Stool often contains leukocytes, blood, and mucus. In older children and adults, a pseudo-appendicitis syndrome, with fever, abdominal pain, tenderness in the right lower quadrant of the abdomen and leukocytosis predominates.

Y. pseudotuberculosis presents with fever, scarlatini-form rash and abdominal symptoms and acute pseudo-appendiceal abdominal pain is common. Clinical features can mimic those of Kawasaki disease.

Complications include post infection arthritis and systemic infections.

Modes of transmission:

Fecal-oral transmission via contaminated food and water or by contact with infected people or animals such as puppies and kittens; raw pork and pork products are known sources of infection.

Incubation Period:

Probably 3-7 days, generally less than 11 days.

Period of Communicability:

Secondary transmission appears rare; fecal shedding occurs as long as symptoms persist, usually 2-3 weeks; if untreated, persons may shed 2-3 months; prolonged asymptomatic carriage has been reported.

Risk Factors/Susceptibility

Diarrhea is more severe in children; complications in adolescents and older adults are more severe and septicemia occurs more often in people with iron overload or immunosuppression.

- Consumption of raw/unpasteurized milk/milk products
- Consumption of potentially contaminated water
- Consumption of raw/undercooked pork/pork products
- Animal contact (pets, farm animals, petting zoos)
- Failure to wash hands after handling raw pork/meat
- Poor hand hygiene
- Travel outside the province/country

Diagnosis & Laboratory Testing

Diagnosis is usually made through stool culture. Stool cultures generally are positive during the first two weeks of illness.

Y. enterocolitica and *Y. pseudotuberculosis* can be recovered from stool, throat swabs, mesenteric lymph nodes, peritoneal fluid, and blood. *Y. enterocolitica* also has been isolated from synovial fluid, bile, urine, cerebrospinal fluid, sputum, and wounds.

TESTING INFORMATION & REQUISITION

Treatment & Case Management

Treatment is under the direction of the attending health care provider. Contact precautions are indicated for diapered or incontinent children and hospitalized cases for the duration of diarrheal illness

Provide personal preventative measures (thorough cooking and safe handling of meats; proper hand hygiene practices after toileting, handling meat or animals; only consume pasteurized milk and milk products).

Inform patients that symptomatic cases will be excluded from conducting activities in high-risk settings such as the food industry, healthcare, or daycare until at least 24 hours after cessation of diarrhea or 48 hours after completion of antibiotic therapy.

Advise household members who are symptomatic to seek medical care.

Public Health will investigate cases to determine source of infection.

Patient Information

PATIENT FACT SHEET

References

1. [Ministry of Health, Infectious Diseases Protocol – Ontario Public Health Standards, 2022.](#)

Additional Resources

1. Heymann, D.L. Control of Communicable Disease Manual (21st Ed.). Washington, American Public Health Association, 2022.
2. [Simcoe Muskoka HealthSTATS: Yersiniosis](#)
3. [PHO. "Yersiniosis". Dec 2022.](#)