

Shigellosis

Reporting Obligations

Shigellosis 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:

Shigellosis is an acute bacterial disease, also known as bacillary dysentery, caused by an anaerobic Gram-negative bacilli in the family Enterobacteriaceae. Four species cause shigellosis: *Shigella dysenteriae*, *Shigella flexneri*, *Shigella boydii*, and *Shigella sonnei*.

The infectious dose for humans is low as few as 10-100 bacteria have been shown to cause disease.

Clinical Presentation:

An acute bacterial disease characterized by watery, loose stools, fever, nausea and vomiting in mild cases. Sometimes, toxemia, abdominal cramps, and tenesmus with mucoid stools with or without blood in more severe cases. Illness is usually self-limiting, lasting an average of 4 – 7 days. Severity and case-fatality vary with the age of the host and the serotype of *Shigella*.

Modes of transmission:

Primary mode of transmission is fecal-oral. Transmission occurs through person-to-person contact, contact with contaminated inanimate objects, ingestion of contaminated food or water and through sexual contact. Multi-antibiotic resistant strains have appeared worldwide, resulting from widespread use of antibiotics. Foodborne outbreaks of shigellosis associated with an infected food handler has occurred in Ontario.

Incubation Period:

Usually 1-3 days but may range from 12 - 96 hours and up to one week for *S. dysenteriae*.

Period of Communicability:

During acute infection and until the infectious agent is no longer present in feces, usually within 4 weeks after illness. Secondary attack rates in households can be as high as 40%. Asymptomatic carriers may transmit infection. Appropriate antimicrobial treatment usually reduces duration of carriage to a few days.

Risk Factors/Susceptibility

The elderly, the debilitated and the malnourished of all ages are particularly susceptible to severe disease and death.

- Men who have sex with men
- Situations of overcrowding where sanitation is poor, such as jails, institutions for children, daycare centers and mental hospitals
- Anal-oral contact
- Consumption of raw/unwashed produce or undercooked shellfish
- Poor hand hygiene
- Recreational water contact (sewage contaminated water)
- History of travel outside province/country

Diagnosis & Laboratory Testing

Isolation of *Shigella* spp. from an appropriate clinical specimen (e.g., stool, urine).

TESTING INFORMATION & REQUISITION

Treatment & Case Management

Treatment and follow up is under the direction of the attending health care provider.

Provide information to patients on personal prevention measures (careful hand hygiene after defecation, sexual contact and before preparing or eating food). Household members should be assessed for symptoms.

Exclude symptomatic cases who are food handlers, healthcare providers, caregivers or daycare attendees pending a negative stool sample or rectal swab collected at least 24 hours after cessation of symptoms OR 48 hours after completion of antibiotic therapy.

Public Health will be involved in case investigation and management.

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: Shigellosis](#)
3. [PHO. "Shigellosis \(Shigella\)". Dec 2022.](#)