CYCLOSPORIASIS

Disease Overview

Cyclosporiasis is an intestinal parasitic infection caused by the protozoa *Cyclospora cayetanensis*. Cyclosporiasis is found worldwide. Infections are most common in tropical and subtropical endemic countries. In Canada, the illness is usually associated with travel abroad.

Symptoms

Clinical illness is characterized by watery diarrhea, loss of appetite, weight loss, abdominal bloating and cramping, increased flatus, nausea, and fatigue. Less commonly low-grade fever and vomiting may also be noted. Relapses and asymptomatic infections can occur. Infection is usually self-limiting and can take several weeks but can last for months in immunocompromised persons.

Reservoir

Humans.

Mode of Transmission

Fecal-oral transmission. Sporadic cases and outbreaks usually related to consumption of water or food contaminated with human faeces, or swimming in contaminated water while travelling in endemic areas.

Cases have occurred from foodborne outbreaks due to contaminated fresh produce (e.g. raspberries, cilantro, basil and lettuce) imported into Canada.

Incubation Period

Variable, about 7 days.

Period of Communicability

Oocysts appear in the stool at the onset of symptoms but are not infectious. They require days to weeks outside host to sporulate and become infectious.

Risk Factors

Increased risk of acquiring/severe illness:

- Travel to tropical or subtropical regions.

Surveillance Case Definition

Confirmed case

Laboratory confirmation of infection in a person with or without clinical illness from an appropriate clinical specimen (e.g., stool, intestinal fluid, small bowel biopsy), with demonstration of:

- *Cyclospora* spp. oocysts;OR
- *Cyclospora* spp. nucleic acid (e.g., by polymerase chain reaction (PCR) or other nucleic acid test (NAT)).

Probable case

Clinical illness in a person with evidence of:

- An epidemiologic link to a confirmed case.

Diagnosis and Laboratory Guidelines

Identification of oocysts from stool or intestinal biopsy samples (see Food and Water Borne Diseases Introduction).

Laboratory Testing

Diagnosis can be difficult in part because even persons who are symptomatic might not shed enough oocysts in their stool to be readily detectable by laboratory examinations. Therefore, patients might need to provide several specimens collected on different days.

Routine parasitology tests for Giardia and Cryptosporidiosis are enzyme immunoassays. NAAT testing for Cyclospora is not routinely done in NB, but it may come in from out of province cases.

A full parasitology workup that covers a larger range of parasites can be done, but it is requested by physicians and linked to a travel history.

Reporting

Per Policy 2.2 Disease and Event notification to OCMOHE and section 3 Disease and Event Reporting

- Routine surveillance (RDSS) for all confirmed cases.
- Access database for all confirmed cases. Database extracts are submitted to OCMOHE on a weekly basis.

Case Management

Education

Case or relevant caregiver should be informed about:

- Nature of infection, length of communicable period and mode of transmission
- Enteric disease precautions
- Hand washing
- Safe water source
- Food safety

Investigation

Use enteric investigation form and obtain detailed history including food, water, swimming or other recreational water, and travel. Potential sources of infection should receive follow up appropriate to risk.

Exclusion/Social Distancing

Not applicable

Treatment

Medications are available, advise to consult with health care professional.

Immunization

Not applicable

Contact Management

Education

Per case management

Investigation

Per case management

Social Distancing/Exclusion

Not applicable

Prophylaxis

Not applicable

Immunization

Not applicable

Outbreak Management

Activate the local outbreak plan when an outbreak is declared.