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Your Health Connection

PUBLIC HEALTH ALERT

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Infectious Diseases Updates - XDR Shigella sonnei: Possible Sexual Transmission, Resumption of Availability of Erythromycin Ophthalmic Ointment

Attention: Physicians, Emergency Departments, Infection Control Practitioners, Walk-In Clinics/Urgent Care Clinics, Nurse Practitioners, Neighbouring Health Units, Designated Officers, Midwives, Community Health Centres, Family Health Teams, Pharmacies, Occupational Health Professionals, Ontario Health Central, Beausoleil First Nation, Moose Deer Point First Nation, Rama First Nation, Wahta First Nation, EMS

Date: March 17, 2023

Clinicians are encouraged to remain vigilant after at least 10 cases of extensively drug resistant (XDR) Shigella have been reported in Ontario with onsets between January 31, 2023, and March 29, 2022. Nine of the cases are from Toronto and one from the Region of Waterloo to date. Sexual contact between men who have sex with men (MSM) has been identified as the predominant route of transmission. Four of the cases travelled abroad during their incubation period.

XCR *Shigella sonnei* has been reported in the United Kingdom and several countries in Europe since late 2021 and has since spread in the US and Canada. PHO and CDC have also recently posted a public health alert related to the increase in XDR *Shigella* cases in Ontario and the United States.

XDR *Shigella* is currently defined as resistant to the following five antimicrobials: ampicillin, fluoroquinolones, third generation cephalosporins, azithromycin and trimethoprim-sulfamethoxazole.

Shigellosis is a reportable disease in Ontario. It is an acute infectious diarrheal disease caused by a group of bacteria called *Shigella*. These bacteria are transmitted by the fecal-oral route, directly through person-to-person contact including sexual contact, and indirectly through contaminated food, water, and other routes. It is a common cause of travel-associated diarrhea and only requires a low infectious dose to make an individual ill. The risk of infection through sexual transmission is high. Outbreaks have occurred among MSM and/or homeless populations.

The incubation period for shigellosis is 1-7 days. It can present with the following signs and symptoms:

- Watery or bloody diarrhea which may contain mucus (usually occurring within 24-48 hours from the time of ingestion of the etiologic agent)
- Severe abdominal cramps
- Tenesmus
- Fever and malaise
- Nausea and vomiting

Occasionally this can lead to complications in vulnerable individuals. Asymptomatic infections may also occur.

Counselling of cases pertaining to sexual activity:

Sexual activity should be avoided from symptom onset until at least seven days after symptoms have stopped. Fecal-oral contact during sexual activity should be avoided for four to six weeks, in consideration of the shedding period for shigellosis.

Hygiene measures should be completed prior to sexual activity to potentially reduce fecal-oral exposure and include the following:

- Wash genital and anal areas and complete hand washing before and after sexual activity.
- Use latex gloves for fingering or fisting and dental dams during oral-anal sex.
- Refrain from sharing sex toys and ensure proper cleaning and disinfection after their use and between partners.
- Change condoms between anal and oral sex.

Practice safe sex by using condom to reduce the risk of acquiring other sexually transmitted and blood borne infections.

Testing and Treatment considerations for clinicians regarding Shigellosis:

Take a sexual history if shigellosis is suspected.

If concerned about sexually transmitted proctocolitis or enteritis test for other STIs and bloodborne infections, including HIV, syphilis, hepatitis B, hepatitis C, gonorrhea, and chlamydia at exposed sites, as appropriate.

Treatment considerations for clinicians regarding Shigellosis:

- Oral rehydration/electrolyte replacement is essential in patients who are dehydrated.
- Most patients (regardless of XDR results) will improve without antibiotic therapy.
- Antibiotic therapy is only recommended for patients with severe disease (e.g. hospitalized patients) or immunocompromised patients.
- **In those who require antibiotics, therapy should be guided by antimicrobial susceptibility testing, in consultation with an infectious disease specialist or other clinician knowledgeable in treating antibiotic-resistant bacteria.**

Reporting

To report a disease of public health significance, contact the Infectious Diseases Program at (705) 721-7520 or 1-877-721-7520 extension 8809 during business hours or after hours to 1-888-225-7851.

Supply of erythromycin ophthalmic ointment and the importance of adhering to the legislation

Erythromycin ophthalmic ointment is now readily available for distribution and routine administration of the ophthalmic prophylaxis to the eyes of newborns should resume. This marks the end of a national shortage.

Regulation 557 Communicable Diseases – Eyes of a Newborn

Regulation 557 Communicable Diseases – General under the *Health Protection and Promotion Act* requires that all health care professionals attending the birth of a child in Ontario instill prophylactic antibiotic into the eyes of newborns within one hour of delivery (or as soon afterwards as is practicable), to destroy any infectious agent that might cause ON, without causing injury to the child.

As of January 1, 2019, a parent may request in writing to their health care provider that prophylactic eye drops not be instilled in the eyes of their newborn. Opt-out requests may only be granted by the health care provider under the conditions outlined below:

1. The parent of the child making the request has received information on the benefits and risks of the ophthalmic agent, as well as information on the likely consequences of non-administration of the ophthalmic agent; *and*
2. An assessment has been done by a member of a health profession set out in Schedule 1 of the Regulated Health Professions Act, 1994 to confirm there is no serious risk of transmission to the child of an infectious agent that might cause ophthalmia neonatorum.

Health care providers are urged to ensure they have adequate supply of erythromycin ophthalmic ointment and to return to routine administration. All case-by-case administration based on individual risk assessment should be ceased.