Ontario

Ministry of Health

Office of Chief Medical Officer of Health, Public Health

Box 12
Toronto ON M7A 1N3

Ministère de la Santé

Bureau du médecin hygiéniste en chef, santé publique

Boîte à lettres 12
Toronto ON M7A 1N3

March 16, 2023

MEMORANDUM

TO:	**Medical Officers of Health/Associate Medical Officers of Health**
FROM:	**Dr. Barbara Yaffe** **Associate Chief Medical Officer of Health**
RE:	**XDR *Shigella sonnei:* Possible Sexual Transmission**

Dear Colleagues,

Please share this memo with physicians and those working in sexual health clinics, in particular clinics serving gay, bisexual and other men who have sex with men (gbMSM) in your public health unit.

I am writing to inform public health units and physicians about trends related to extensively drug resistant (XDR) *Shigella* cases in Ontario. To date we are aware of at least ten cases (all male) of XDR *Shigella sonnei* in Ontario with onset between March 29, 2022 and January 31, 2023 - nine in Toronto and one in the Region of Waterloo. 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.

<u>Recommended action:</u>

Local public health units and clinicians in Ontario are advised to remain vigilant; this information is shared for awareness when assessing patients presenting with symptoms consistent with shigellosis and for those working in sexual health and specialized clinics for gay, bisexual and other men who have sex with men (gbMSM).

Follow up of *Shigella* cases:

- Inquire about travel abroad as well as social history, including sexual activities, housing status, and use of substances.
- There are no additional exclusion criteria for XDR *Shigella sonnei* cases working in high-risk settings beyond those described in the Ministry of Health Shigellosis Infectious Disease Protocol Appendix 1.

Cases of Shigellosis co-occurring with other sexually transmitted infections (STIs), including HIV, have been previously described among MSM.

Counselling of cases pertaining to sexual activity:

- Sexual activity should be avoided from symptom onset until at least seven days after symptoms have stopped. Faecal-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 infections, including HIV and hepatitis B and C.

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, gonorrhea, chlamydia, hepatitis B and hepatitis C 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.**

Note: all laboratories performing bacterial stool testing should continue to send their cultured Shigella isolates to PHO's laboratory for routine subtyping surveillance.

We will continue to work closely with Public Health Ontario to closely monitor this situation and will keep you updated with any new developments. If you have any questions, please direct them to IDPP@ontario.ca .

Sincerely,

Barbara Yaffe, MD, MHSc, FRCPC
Associate Chief Medical Officer of Health