

SUBJECT: Extensively drug resistant (XDR) *Shigella sonnei*
Date: March 20, 2023
Pages: 2
To: Physicians, Hospitals, Nurse Practitioners
From: Dr. Nicola Mercer, Medical Officer of Health & CEO

XDR *Shigella sonnei* has been seen in Ontario.

To date at least ten cases of XDR *Shigella sonnei* (all male) have been confirmed in Ontario with onset between March 29, 2022 and January 31, 2023. Cases have been seen in Toronto and the Region of Waterloo. Sexual contact between men who have sex with men (MSM) has been identified as the predominant route of transmission. This disease may be associated with recent travel as it is found in other countries as well.

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

Transmission and Symptoms

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
- Severe abdominal cramps
- Tenesmus
- Fever and malaise
- Nausea and vomiting

Testing and Treatment Considerations for Clinicians

- Consider shigellosis when assessing patients with consistent symptoms.
- 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.

All confirmed cases of XDR Shigella sonnei should be reported to public health.

For more information, please contact:

Name/Title: Rita Isley, Director of Community Health and Chief Nursing Officer
Email: Rita.Isley@wdgpublichealth.ca
Website: www.wdgpublichealth.ca