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Public Health Services, Healthy and Safe Communities
Epidemiology, Wellness and Communicable Disease Control
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MEDICAL ADVISORY

Provincial Alert – *E. coli* O157:H7 Outbreak Following Exposure to Valen's Conservation Authority Beach Swimming Area.

TO: Family Physicians
Emergency Departments
Infectious Disease Physicians
LTCH Administrators/Directors of Care
Medical Laboratories
Infection Control Professionals (**please inform Labs**)
St. Joseph's Centre for Ambulatory Health Services, Urgent Care

FOR YOUR INFORMATION:

Central West Medical Officers of Health
Academy of Medicine
Dr. Michael Stacey, VP Medical, Hamilton Health Sciences
Mr. Bruce Squires, President, McMaster Children's Hospital
Dr. David Russell, Chief of Staff, St. Joseph's Healthcare
LHIN, Dr. Jennifer Everson, Jodi Sanders

FROM: Dr. Ninh Tran, Associate Medical Officer of Health

DATE: September 18, 2020

Hamilton Public Health Services was alerted by Public Health Ontario on September 17, 2020 that seven linked cases of *E. coli* O157:H7 have been identified and share a common exposure, swimming at the Valen's Conservation Authority during the summer months of 2020.

Hamilton Public Health Services (HPHS) has monitored the recreational water at this location over the summer months. This beach has been posted as unsafe on a few occasions during the summer because of elevated bacterial levels found during weekly testing. We are asking any members of the public who swam at Valen's Conservation Area this summer and are experiencing symptoms associated with *E. coli* O157:H7 to visit their healthcare provider for an assessment and that suspect cases be tested using bacteriological culture.

***E. coli* O157:H7 Background**

Symptoms

E. coli O157:H7 is a toxin-producing *E. coli* infection that affects individuals differently. Common symptomology includes, severe stomach cramps, diarrhea (often bloody) and vomiting. Some people will experience a fever, severity of illness varies from person to person. About 5 to 10% of people with an *E. coli* O157:H7 are at risk of developing a life-threatening complication known as hemolytic uremic syndrome (HUS).

Transmission

E. coli O157:H7 is transmitted to humans primarily through consumption of fecally contaminated foods or water. In this instance this exposure is due to swimming in contaminated recreation water.

Incubation period

The incubation period can range from 3 to 8 days, with a median of 3 to 4 days.

Testing Recommendations

Testing for *E. coli* using stool culture.

Tests to monitor people with *E. coli* O157:H7 for hemolytic uremic syndrome (HUS) can consist of complete blood count and smear, blood urea nitrogen, creatinine and urinalysis. If HUS occurs, it usually starts 5-10 days after onset of diarrhea.

The Red Book states the following:

“Careful monitoring of patients with hemorrhagic colitis (including complete blood cell count with smear, blood urea nitrogen, and creatinine concentrations) is recommended to detect changes suggestive of HUS. If patients have no laboratory evidence of hemolysis, thrombocytopenia, or nephropathy 3 days after resolution of diarrhea, their risk of developing HUS is low.”

If you have any questions or concerns, please contact Hamilton Public Health Services by calling (905) 546-2063.

Sincerely,

Dr. Ninh Tran, MD, MSc, CCFP, FRCPC
Associate Medical Officer of Health
Hamilton Public Health Services

Resources

<https://www.canada.ca/en/public-health/services/diseases/e-coli.html>

<https://www.publichealthontario.ca/en/diseases-and-conditions/infectious-diseases/enteric-foodborne-diseases/vtec>