

## Listeriosis Investigation: Toronto Public Health investigating cases linked to Druxy's at Princess Margaret Cancer Centre

**Attention:** Physicians, Long-Term Care Facilities, Retirement Homes, Emergency Departments, Infection Control Practitioners, Nurse Practitioners, Walk-In Clinics/Urgent Care Clinics, Family Health Teams, Central LHIN, NSM LHIN

**Date:** March 23, 2018

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Toronto Public Health (TPH) is investigating three cases of **Listeriosis** in people who consumed deli sandwiches sold at the **Druxy's restaurant located in Princess Margaret Cancer Centre at 610 University Ave, Toronto, ON**. Any individuals who ate deli meats at this restaurant from January 1 to March 12, 2018 are asked to watch for signs and symptoms of Listeriosis and seek medical attention if these symptoms develop.

Common symptoms include fever, diarrhea, vomiting, nausea and cramps. Severe symptoms include headache, stiff neck, confusion, loss of balance, and convulsions, and can develop suddenly in those with a weak immune system because of a medical treatment or a medical illness, and the elderly. There is no vaccine to prevent Listeriosis, however it is treatable with antibiotics. Healthy people may only experience mild symptoms and usually recover completely. Individuals without symptoms do not need to be tested or treated.

Listeriosis is a serious but rare illness caused by eating food contaminated with the bacteria *Listeria monocytogenes*. Common foods contaminated with this bacteria include deli meats and unpasteurized dairy products. People most at risk of developing serious illness are those with weakened immune systems, the elderly and pregnant women.

- The incubation period for Listeriosis is from 3 to 70 days with an average incubation period of 3 weeks.
- Laboratory confirmation is generally obtained through routine cultures of blood, CSF and other potentially involved anatomic sites (e.g. joint, pleural, pericardial fluid) for the isolation of *Listeria monocytogenes*.

The attached [Labtract](#) provides detailed information on clinical and food testing with regard to outbreaks of *Listeria monocytogenes*.

Further information about Listeria infection is available on our Health Professionals Portal at [www.smdhu.org/HPPortal](http://www.smdhu.org/HPPortal)

If you have questions or want to report a case please call the Simcoe Muskoka District Health Unit's Communicable Disease Program at 705-721-7520 or 1-877-751-7520 Ext. 8809 Monday to Friday between 8:30 am - 4:30 pm.



## Labstract – March 2018

# *Listeria monocytogenes* – Clinical and Food Testing Guidelines for Foodborne Illness Outbreaks

### Audience:

Health Care Providers, hospital and commercial laboratory personnel

### Overview:

Effective Immediately:

- Two sets of routine blood cultures should be ordered and submitted to your local hospital or private laboratory when listeriosis is being considered.
- If *Listeria* is isolated from the blood sample, the isolate should be sent to the Public Health Ontario (PHO) Laboratory for confirmation and typing.
- Primary blood culture is not available at the PHO laboratory. Blood culture tubes submitted to PHO will be rejected.
- Stool culture and serology for *Listeria* are not recommended.

### Background:

Listeriosis is a foodborne illness that usually presents as a self-limited syndrome with malaise, fever, and diarrhea with no further untoward outcome. In a minority of cases, particularly in the immunocompromised, neonates, elderly and pregnant women, illness such as bacteremia, meningitis, and fetal loss can ensue. Ingestion of suspect food by healthy or immunocompetent persons does not necessarily result in infection with *Listeria*.

These guidelines are applicable during an outbreak investigation or when there is a known contaminated or recalled food product. The guidelines address both clinical testing and food testing for *Listeria*.

Individuals with symptoms of meningitis and/or invasive disease require clinical laboratory testing, regardless of consumption of a known contaminated or recalled food product.

The optimal clinical specimens for suspected, symptomatic cases of listeriosis are blood cultures.

Testing for *Listeria* in asymptomatic people who consumed a contaminated or recalled food product is not required.

**Table 1: Clinical testing for *Listeria***

Clinical symptoms/ exposure	Host affected	Testing recommended	Where to submit testing
Asymptomatic with consumption of a known contaminated or recalled food product	All hosts, including immunocompromised, pregnant and those 65 years of age or older	<p>None</p> <ul style="list-style-type: none"> <li>Counsel regarding potential symptoms of gastroenteritis and invasive listeriosis and to consult a health care provider should these develop</li> </ul>	Not applicable
Gastroenteritis with or without fever and no other symptoms	Immunocompetent hosts who are not pregnant and not 65 years of age or older	<ul style="list-style-type: none"> <li>Stool for routine culture and susceptibility as per usual practice</li> <li>Counsel regarding potential symptoms of invasive listeriosis and to return to the health care provider should these develop</li> <li>If evidence of fever within 24 hours of clinical assessment, may consider 2 sets of routine blood cultures (which detect <i>Listeria spp.</i>)</li> </ul>	<ul style="list-style-type: none"> <li>Routine blood cultures can be submitted to a hospital laboratory with a hospital requisition or a commercial laboratory with an OHIP requisition*</li> <li>Routine blood cultures are not available at PHO</li> </ul>
AND consumption of a known contaminated or recalled food product	Pregnant, immunocompromised, or 65 years of age or older	<ul style="list-style-type: none"> <li>Stool for routine culture and susceptibility as per usual practice</li> <li>If evidence of fever within 24 hours of clinical assessment, may consider 2 sets of routine blood cultures (which detect <i>Listeria spp.</i>)</li> <li>Counsel regarding potential symptoms of invasive listeriosis and to return to the health care provider should these develop</li> </ul>	<ul style="list-style-type: none"> <li>Routine blood cultures can be submitted to a hospital laboratory with a hospital requisition or a commercial laboratory with an OHIP requisition*</li> <li>Routine blood cultures are not available at PHO</li> </ul>
Evidence of systemic involvement suggested by headache, stiff neck, confusion, loss of balance, or convulsions in addition to fever and muscle aches, REGARDLESS of exposure to a known contaminated or recalled food product	All hosts	<ul style="list-style-type: none"> <li>Routine blood cultures (which will detect <i>Listeria spp.</i>). Two sets of blood cultures should be taken from different sites. A third set of blood cultures should be drawn only if endocarditis is suspected. Collect another set of blood cultures after 48 hours if the previous cultures are negative and there is ongoing concern of invasive infection with <i>Listeria monocytogenes</i>.</li> <li>If clinical assessment is suggestive of possible neurological involvement (meningitis or meningoenzephalitis), consider lumbar puncture and bacterial culture of cerebrospinal fluid</li> <li>Culture of other potentially involved anatomic sites as needed (e.g., joint, pleural, pericardial fluid, sputum)</li> </ul>	<ul style="list-style-type: none"> <li>Routine blood and other sterile site cultures can be submitted to a hospital laboratory with a hospital requisition or a commercial laboratory with an OHIP requisition*</li> <li>Blood or cerebrospinal fluid cultures are not available at PHO</li> </ul>

NB. Serology for *Listeria* is not available and stool testing for *Listeria* is not recommended.

\*If clinical specimens are positive for *Listeria monocytogenes*, the hospital or commercial laboratory should forward isolates to PHOL for molecular subtyping.

## **Food testing for *Listeria*:**

Food testing at PHOL is performed to support local public health units to identify contaminated food products linked to human illness and mitigate ongoing exposure and risk.

Suspect foods can be submitted for testing to PHOL for laboratory-confirmed cases of listeriosis, to support a foodborne illness investigation after assessment by the local public health unit.

Food products that are already recalled are generally not tested. A recalled product may be considered for testing only for laboratory-confirmed clinical cases of listeriosis following an assessment by the local public health unit and Public Health Ontario.

## **For further information:**

- Contact the PHOL Customer Service Centre at 416-235-6556 or 1-877-604-4567 (toll-free), or by email at [CustomerServiceCentre@oahpp.ca](mailto:CustomerServiceCentre@oahpp.ca)
- For PHOL specimen collection information and previous Lababstracts, refer to [www.publichealthontario.ca/Labs](http://www.publichealthontario.ca/Labs)
- The current version of the PHOL General Test Requisition and other forms are available at [www.publichealthontario.ca/requisitions](http://www.publichealthontario.ca/requisitions)
- [PHO laboratory's Test Information Sheets are available at www.publichealthontario.ca/test\\_directory](http://www.publichealthontario.ca/test_directory)
- To subscribe to future Lababstracts, [register on our website](#)
- To register for Autofax and receive laboratory reports by fax directly from our laboratory information system as soon as they are released, contact the PHOL Customer Service Centre