

June 3, 2011

Non O157 Shiga Toxin Producing *E coli* (STEC) Laboratory Testing Guidelines (includes *E coli* O104)

To Health Care Providers:

Due to the ongoing outbreak of *E coli* O104:H4 in Germany, and cases reported in 9 other countries in Europe and the US, we are providing guidelines for testing should a case of *E coli* O104 be suspected in a returning traveler.

Who to test:

Recent travelers or contacts of symptomatic travelers from Europe presenting with bloody or non bloody acute diarrhea or suspected/confirmed hemolytic uremic syndrome (HUS), should have stools submitted for testing for STEC/ *E coli* O104.

There is no role for testing asymptomatic persons.

What tests are available:

Stool ELISA and PCR to detect shiga toxin available at Ontario Agency for Health Protection and Promotion (OAHPP) public health laboratories - Toronto (turn around 48-72 hours after receipt of specimen at OAHPP PHL-Toronto)

- If shiga toxin positive, confirmation testing for STEC may take up to 6 days. Please consider shiga toxin positive results in a person returning from Europe with the appropriate symptoms as a presumptive positive

Please note:

Routine stool cultures performed at a local hospital or private laboratory will not detect non-O157 STEC, including *E coli* O104. If non-O157 STEC infection is suspected, it must be sent to the OAHPP public health labs for specialized testing.

If infection with non-O157 STEC is suspected, additional laboratory testing including serum creatinine, electrolytes, and complete blood count to assess for dehydration and potential HUS should be performed. Consider also submitting stool for routine bacterial culture and sensitivity and ova and parasites to investigate alternative causes where

Non O157 Shiga Toxin Producing E coli (STEC) Laboratory Testing Guidelines (Continued)

clinically appropriate. These tests are available through your local laboratory (hospital/community laboratory)

Tests not available:

There are no serological tests available for STEC, including *E coli* O104.

How to collect and transport test:

Stool samples should be collected in usual stool culture media (Cary-Blair), and kept refrigerated if possible.

Prior to submitting a sample, call the OAHPP Customer Service Centre toll free at **1-877-604-4567** or **416-235-6556**. After hours only, please contact the duty officer at 416-605-3113.

Required information on OAHPP PHL requisition:

- Explicitly request for STEC direct testing, and indicate if HUS present /suspected
- Symptoms
- Place and date of travel
- Standard requirement for all laboratory submissions (including two personal health identifiers on requisition and sample, submitter information, and date of collection)
- The OAHPP PHL laboratory requisition is available at <http://www.oahpp.ca/resources/requisitions.html>

Where to send test:

Send to closest OAHPP public health laboratory with completed OAHPP public health laboratory requisition (see above)

Public health reporting:

Non-O157 STEC infection and HUS are reportable diseases in Ontario. Please ensure that your local public health unit is aware of all individuals who are suspected or confirmed of having non-O157 STEC infection or HUS.

Further information:

For urgent requests, or if there are any questions about testing for non-O157 STEC, please contact

The OAHPP Customer Service Centre toll free at **1-877-604-4567** or **416-235-6556**.

After hours, please contact the duty officer # (for urgent issues only): **416-605-3113**