Labstract – December 2008

Bordetella Molecular Testing - Changes to Result Reporting

To Health Care Providers:

Effective January 1, 2009, the Public Health Laboratories are changing result reporting for *Bordetella pertussis and Bordetella parapertussis* (BP) molecular testing - polymerase chain reaction (PCR).

The current test uses real-time PCR to amplify the target deoxyribonucleic acid (DNA) of BP. The clinical significance of detection of low level amounts (equivalent to less than one organism) of BP DNA is not yet known. These levels could represent a true infection or an asymptomatic transient colonisation in an immunised contact. Studies are currently underway in order to better understand the clinical significance.

Until the significance of positive tests with low level amounts of BP DNA is better understood, clinicians are advised to interpret them in combination with the available clinical and epidemiologic information.

BP PCR results will be issued as follows:

- When BP DNA is detected at up to 35 cycles of amplification, the test will be reported positive as previously.
- When BP DNA is detected at low levels (36 to 40 cycles of amplification), the following report will be issued:
  "Indeterminate result: A low level of *B. pertussis* (or *B. parapertussis)* DNA was detected in this sample. The clinical significance of this is not known and should be interpreted in combination with available clinical and epidemiological information. Consider collecting a second nasopharyngeal swab for repeat PCR testing if clinical illness is compatible with pertussis."

For further information:

- Contact the PHOL Customer Service Centre at 416-235-6556 or toll free at 1-877-604-4567, or via email at customerservicecentre@oahpp.ca
- For the PHOL Specimen Collection Guide and previous Labstracts, refer to http://www.oahpp.ca/services/public-health-laboratories.html
- To subscribe to labstracts, please e-mail labstracts@oahpp.ca