Public Health Ontario
PARTNERS FOR HEALTH
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Public Health Laboratory
Laboratoire de santé publique

Labstract – April 2012

Legionella – Change in testing methodology to Real-Time PCR Testing

To Health Care Providers:

Effective May 28, 2012, a new PCR test for *Legionella* will be used for lower respiratory tract specimens. This PCR test will replace the current Direct Fluorescent Antibody (DFA) assay, and routine culture isolation which will be set up only for PCR positive specimens. The real-time PCR has 2 targets, one that detects all *Legionella* species, and another that detects *L. pneumophila.*

Sensitivity and Specificity
This PCR is more sensitive than direct fluorescent antibody (DFA) and the routine culture method, and of equal specificity. The PCR identifies *L. pneumophila* and detects all Legionella species, it does not identify the individual *L. pneumophila* serogroups or the more than 54 other individual *Legionella* species. Therefore, culture of all PCR positive samples will still be done routinely. The DFA smears on these samples will be discontinued because of the fast turnaround time and higher sensitivity of PCR.

Specimen collection requirements and test ordering
PCR is performed on lower respiratory tract specimens such as Bronchial alveolar lavage, lung tissues, etc. collected in a sterile container. *Legionella* testing may be ordered using the PHL General Test Requisition, and entering "Legionnaires Disease" under the test description.

Turnaround time
PCR results are available within 5 working days; culture results are available within 3-10 days.

Interpretation of results
Results will be reported as DETECTED/ NOT DETECTED/ INDETERMINATE for *Legionella* species and/or *Legionella pneumophila*. For indeterminate results, consider resubmitting specimen if clinically indicated. As per current guidelines (Ontario Ministry of Health and Long Term Care, European Union), a person who is positive for *Legionella/ L. pneumophila* by PCR and has compatible clinical criteria should be considered a **probable** case of *Legionella* (see references for more details).

For further information:

- Call the Customer Service Centre at 416 235 6556 (in Toronto) or toll free at 1 877 604 4567
- The current version of the PHL General Test Requisition form is available at http.//www.oahpp.ca/resources/requisitions.html
- To view our Labstracts, visit http://www.oahpp.ca/resources/labstracts.html
- To subscribe to future PHO Labstracts, please email labstracts@oahpp.ca

Ontario
Agency for Health Protection and Promotion
Agence de protection et de promotion de la santé

References:

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