

May 2011

Changes to Influenza and Other Respiratory Viral Testing for Spring and Summer 2011 (May 16, 2011 to October 31, 2011); Changes to Respiratory Syncytial Virus (RSV) Rapid Testing

To Health Care Providers:

Effective May 16, 2011, the Ontario Agency for Health Protection and Promotion (OAHPP) public health laboratories will not perform routine influenza PCR testing until November 1, 2011 (or earlier if significant influenza activity is detected prior).

As of May 16, 2011, only specimens from children below five years of age will be approved for rapid RSV testing.

Respiratory Viral Testing Algorithm for Spring/Summer 2011

For this spring/summer, respiratory viral testing will continue to be based on patient setting (see table below). Multiplex molecular respiratory viral PCR will continue to be provided for intensive care patients and for respiratory outbreaks.

To allow appropriate test assignment and to minimize turn around time, sufficient patient clinical information must be provided (including patient setting) on the current version of the OAHPP laboratory requisition form (updated November, 2009) available at <http://www.oahpp.ca/resources/requisitions.html>.

Table: Respiratory viral testing algorithm for samples received at OAHPP during 2011 spring/summer season* (May 16, 2011 to October 31, 2011)

Patient Setting [‡] or specimen type	Tests Provided [¶]	Comments
1. Inpatient (ICU)	Multiplex respiratory viral PCR [‡]	
2. Inpatient (ward) or Institution	Viral culture	
3. Physician Office/Clinic; Emergency Room (not admitted); All other ambulatory patients	Viral culture	Ambulatory patients (including ER) will be tested by viral culture alone
4. Outbreaks	Influenza (4 samples) rapid testing	A maximum of 6 outbreak samples will undergo PCR testing [∞]
	Multiplex respiratory viral PCR or viral culture	Once a pathogen is detected in 2 patient samples, further outbreak testing is usually not necessary
5. Lung tissue/biopsy specimens (regardless of patient setting)	Multiplex respiratory viral PCR [‡] Viral culture (including CMV shell vial) Mycoplasma/Chlamydothila PCR Legionella DFA and culture	
6. BAL, bronchial wash, pleural fluids (regardless of patient setting)	Multiplex respiratory viral PCR [‡] or viral culture	CMV shell vial culture will also be done on BAL and bronchial wash samples

Footnotes

*Note - all out of season influenza A positive samples will be subtyped and strain typed (if able to grow in culture).

[‡] If patient setting is not provided, sample will be tested by viral culture alone.

[¶] Rapid RSV testing will be done routinely on all samples from children <12 months with bronchiolitis or pneumonia and on request in other children <5 years

^μ The current multiplex molecular panel detects Influenza A/B, rhinovirus (or rhinovirus/enterovirus), RSV, parainfluenza, adenovirus, metapneumovirus and coronaviruses. Multiplex molecular testing will not be performed on multiple submissions from the same site, or repeat submissions within 7 days of a previous sample being tested.

[∞]OAHPP's outbreak testing process is currently under review.

Changes to Influenza and Other Respiratory Viral Testing for Spring and Summer 2011 (Continued)

Changes to Respiratory RSV Rapid Testing

OAHPP is changing acceptance criteria for Respiratory Syncytial Virus (RSV) rapid testing because the manufacturer's kit (BinaxNOW® RSV) currently in use at the OAHPP is only approved for use in neonates and children below five years of age.

The BinaxNOW® RSV full package insert is available at:

<http://www.binaxnow.com/pdf/IN430050%20%20RSV%20Insert%20Rev%201%204-21-08.pdf>

RSV detection in samples submitted from outbreaks and intensive care units will continue to be done using the more sensitive multiplex molecular testing kit in use at OAHPP.

OAHPP recently conducted a review of testing performance when used in outbreak situations involving elderly populations and in children below 5 years of age. The kit performed poorly in patients >64 years of age tested in an outbreak setting – sensitivity was only 26 per cent when compared to molecular testing in this patient group.¹

New services provided by OAHPP to assist you:

- **Get results faster by registering for Autofax – which enables us to provide you with** PHL reports by fax directly from our laboratory information system as soon as they are released. To register, please contact the Toronto public health laboratory at 1-877-604-4567.
- OAHPP's **Laboratory-Based Respiratory Pathogen Surveillance Report** summarizes all respiratory viral testing done at PHL (weekly during influenza season; biweekly during spring/summer – May 6 to November 4, 2011). The report also contains community respiratory viral surveillance data obtained from Ontario's participants in the CIHR-funded influenza Vaccine Effectiveness (VE) Study which performs PCR testing on patients with influenza-like-illness visiting sentinels across Ontario. This report is available at:
<http://www.oahpp.ca/resources/laboratory-materials.html> Ontario VE study information can be found at:
<http://www.oahpp.ca/resources/studies/vestudy/index.html>

For further information or queries, please contact the public health laboratory, Toronto at **416-235-6556**; toll free at **1-877-604-4567**.

References

1. **Evaluation of the BinaxNow® RSV test kit for the detection of respiratory syncytial virus in respiratory samples from children and outbreaks in elderly persons.** E Kristjanson, NLombardi, J Gheewala, E Chong-King, M Franklin, A Li, A Eshaghi, A Winter, S Patel, and JB Gubbay. Clinical Virology Symposium and Annual Meeting Pan American Society for Clinical Virology, May 8-11, 2011, Daytona Beach, Florida, USA.