

LABORATORY BULLETIN

2009 – September 11

Bulletin # 2009– 11

To: Alberta Health and Wellness, Brenda Hannah, Infectious Disease Physicians, Laboratory Managers and Directors, Medical Officers of Health, and All Physicians

Re: Clarify Laboratory Testing and Turn-around Time for Influenza A (seasonal and Pandemic (H1N1) 2009 virus) and other Respiratory Viruses

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Background:

A combination of laboratory tests are used for the detection and confirmation of respiratory viral pathogens including Pandemic (H1N1) 2009, previously swine-origin influenza A virus (S-OIV). These tests are used according to clinical need, patient care setting, pathogen prevalence, and test turn-around times. A brief description of the various assays is provided below.

Specimen Types:

Clinical Presentation	Specimen Type	Transport Medium
Upper Respiratory Tract	Nasopharyngeal swab Throat swab	Send swabs in Universal Transport Medium (UTM)
	Nasopharyngeal aspirate Auger suction Nasopharyngeal secretions	Send aspirates/fluids in leak-proof sterile container
	Bronchoalveolar Lavage (BAL) Endotracheal Tube Secretions (ETT)	Send in leak-proof sterile container

Molecular Assays for Respiratory Virus Detection:

The following assays are used:

- Influenza A PCR assays: detection of influenza A virus [seasonal or Pandemic (H1N1) 2009] is generally within 1 day of receipt at ProvLab.
- Confirmatory testing of Pandemic (H1N1) 2009 requires an additional day during weekdays.
- Respiratory Viral Panel: detects influenza A [seasonal or Pandemic (H1N1) 2009] and other respiratory agents, and has a longer turn-around time. The result is usually available within 2 days of receipt at ProvLab.
- In rare cases, molecular assays can be falsely negative due to genetic changes in the virus.

Direct Fluorescent Antigen (DFA):

- Only performed on NP swabs or aspirates.
- Usually performed on specimens from pediatric patients less than one year of age and, as required, from hospitalized patients.
- Turn-around time is generally 1 day following receipt at ProvLab.
- A negative result does not rule out influenza A, seasonal or Pandemic (H1N1) 2009.

Influenza A viruses detected by any method are subtyped to differentiate seasonal strains from Pandemic (H1N1) 2009.

Limitation: The detection of respiratory viruses is affected by the quality and timing of sample collection in relation to the onset of illness.

For further information go to: http://www.provlab.ab.ca/LabBulletin2009/LabBulletin2009_9.pdf

Questions:

Contact the Virologist-on-Call:

Edmonton Laboratory – Phone: 780 407 7121 (ask for VOC) or 780 407 8822 UAH Switchboard (ask for VOC)	Calgary Laboratory – Phone: 403 944 1200 (ask for VOC)
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This bulletin was distributed to:

- ◆ Alberta Health & Wellness
- ◆ Brenda Hannah
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- ◆ Infectious Disease Physicians - Edmonton, Calgary
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- ◆ Medical Officers of Health - Alberta, First Nations, Northwest Territories, Nunavut
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 - Province of Alberta - ICU Physicians
 - Province of Alberta - All Physicians