

Date: November 4, 2009
To: Alberta MicroNet, Chief Medical Officer of Health, Laboratory Managers
& Directors, Medical Officers of Health
From: ProvLab
Re: Use of Point of Care Devices for Pandemic Influenza Testing

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Key Message:

Point of Care devices are commercially available for the diagnosis of influenza and other respiratory agents. The primary advantages of these devices are that they can provide a result within 10 to 30 minutes after sample preparation by individuals with minimal laboratory training.

Some of the important disadvantages are:

- Variable sensitivity, between 40 – 69% (1,2,3)
- Cannot distinguish between pandemic and seasonal influenza (1,3)
- Prone to false-positives especially if prevalence of pandemic influenza is low
- Cost
- May require use of transport medium specific to that kit, which can be incompatible with the Universal Transport medium provided by ProvLab, for influenza and respiratory virus testing.

As a result, the use of these devices for individual patient diagnosis is not recommended; instead, when appropriate, samples should be sent as a high priority to ProvLab for molecular testing. Laboratory assays at ProvLab are extremely sensitive for influenza detection and also provide subtyping information, thereby distinguishing between Pandemic and seasonal subtypes. These results are important for treatment, infection prevention and public health follow-up.

References

1. Morbidity and Mortality Weekly Report (MMWR) 2009. Evaluation of Rapid Influenza Diagnostic Tests for Detection of Novel Influenza A (H1N1) Virus --- United States, 2009. **58**(30):826-829
2. Vasoo S et al. 2009 Rapid antigen tests for diagnosis of pandemic (Swine) influenza A/H1N1. Clin. Infect. Dis. **49**(7):1090-3
3. Hurt AC et al. 2009 Performance of influenza rapid point-of-care tests in the detection of swine lineage A(H1N1) influenza viruses. Influenza Other Respi. Viruses **3**(4):171-6.
4. Canadian Public Health Laboratory Network 2009. Interim Guidance for Laboratory Testing for Detection and Characterization of Pandemic H1N1 (2009) Virus.

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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