



**MLS Influenza Laboratory Update #6
2010-2011 Influenza Season
February 1, 2011**

Purpose of this Message:

This message serves to update and remind the laboratory community about MDH testing strategies and logistics for the 2010-2011 influenza season. All of this information is found on the MDH Laboratory Influenza Information website at: <http://www.health.state.mn.us/divs/phl/clin/labflu.html>

Included in this Update:

1. Specimen Submission to MDH-PHL
2. Forms Required for Specimen Submission
3. Testing Performed at MDH-PHL
4. Rapid Influenza Testing Information – NEW from CDC

1. Specimen Submission to MDH-PHL

MDH-PHL is functioning primarily in a surveillance role (not diagnostic role) for influenza testing this season, with the main goal of establishing the circulating strain types in order to inform the healthcare community. Therefore, if diagnostic influenza PCR testing is desired on non-hospitalized patients, please submit specimens to your normal reference laboratory.

When To Submit Specimens to MDH-PHL:

(a) HOSPITALIZED surveillance – submit specimens from persons who are **hospitalized** with ILI* or clinical suspicion of influenza or who are **deceased** following ILI or clinical suspicion of influenza.

-- if no influenza testing is performed in your laboratory, submit a nasopharyngeal swab or other specimen as appropriate, see Laboratory Influenza website under **Specimen Submission**
<http://www.health.state.mn.us/divs/phl/clin/labflu.html#submit>

-- if a rapid influenza test was performed (as the only influenza diagnostic test), regardless of the result send a specimen.

-- if your laboratory is performing onsite influenza testing by PCR and/or viral culture (or if you are using a reference laboratory for PCR and/or viral culture), MDH still requests that specimens that are positive for influenza from these patients be submitted to MDH-PHL for further characterization.

(b) LABORATORY surveillance - To further characterize this season's influenza strains, MDH-PHL is requesting that laboratories performing rapid and other testing methods (EIA, IFA, DFA, PCR, etc.) continue to submit up to two patient specimens (non-hospitalized) that are positive for influenza A or B each week for surveillance purposes. In addition, virology laboratories should continue to submit viral culture isolates that are positive for influenza.

(c) CLUSTER investigation or other unusual circumstance for which MDH has requested a specimen(s) be sent to MDH-PHL. Call MDH Infectious Disease Epidemiology Prevention and Control at 651-201-5414 or 1-877-676-5414 with any questions.

(d) SENTINEL surveillance – These facilities are pre-determined and have a specific protocol.

* ILI is defined as **fever > 100° F and cough or sore throat** in the absence of a known disease other than influenza.

Specimen Transport

Place swab in viral transport media (VTM; e.g. M4, M5, Hanks) for transport to MDH. If VTM is not available, then sterile saline or phosphate buffered saline (PBS) is acceptable. If sending left-over saline solution (no chemicals or preservatives) from rapid testing, you must send at least 500 µl. Please ship specimen(s) at refrigerator temperature. For additional specimen transport information:

<http://www.health.state.mn.us/divs/phl/clin/labflu.html#transport>

2. Forms Required for Specimen Submission

All specimens submitted based on criteria outlined in #1 above, require the submission of ONLY ONE form. **NOTE:** This is a change from the 2009-2010 influenza season as the *Clinical Screening Form* is no longer being used. We request that you CHOOSE FROM ONE OF TWO VERSIONS of the *Clinical Testing and Submission Form* depending on whether the specimen is being submitted from a HOSPITALIZED or NON-HOSPITALIZED patient. To find the forms with an explanation for use, go to:

<http://www.health.state.mn.us/divs/phl/clin/labflu.html#forms>

Note: if your facility is enrolled in the defined Influenza Sentinel Provider Surveillance Network, please follow current established guidelines for the laboratory submission form and project number that is specific to that project. <http://www.health.state.mn.us/divs/idepc/diseases/flu/hcp/sentinelsite.html>

3. Testing Performed at MDH–PHL

- (a) Real-time PCR for type A and type B influenza on all specimens that meet the testing criteria (see #1 above).
- (b) Specimens positive for type A influenza PCR are typed for seasonal hemagglutinin types H1 and H3 and for 2009 H1N1 [formerly known as novel (swine-like) H1].
- (c) Most specimens identified as 2009 H1 influenza will be tested for oseltamivir resistance and may be further characterized for the presence of potential virulence factors.
- (d) Specimens from defined surveillance programs are also set-up as viral respiratory cultures for influenza subtyping or identification of other respiratory viruses.
- (e) Influenza isolates sent from virology laboratories are subtyped with CDC/WHO antisera for influenza A or influenza B to determine if they match with the current vaccine. Selected specimens and/or isolates are forwarded to the CDC for additional characterization.

Results Reporting by Fax:

MDH-PHL continues to fax results to those laboratories that are currently set up to receive faxes. If your laboratory did not set up this function during the 2009-2010 influenza season and are interested in doing so, please contact Paulette Schlichter at paulette.schlichter@state.mn.us

4. Rapid Influenza Test Information – NEW from CDC

As in past years, MDH guidance for the use of rapid influenza testing is to interpret results with caution. Disease prevalence is an important indicator of the predictive value of the rapid influenza tests. NEW CDC information regarding rapid testing “Guidance for Clinicians on the Use of Rapid Influenza Diagnostic Tests for the 2010-2011 Influenza Season” can be found at:

http://www.cdc.gov/flu/professionals/diagnosis/clinician_guidance_ridt.htm

Thank you and Questions

Thank you for your assistance in the many MDH Influenza Surveillance programs. If you have any questions about influenza reporting please contact MDH Epidemiology at 651-201-5414 or 1-877-676-5414. If you have questions about specimen submission or laboratory testing, please contact Dave Boxrud, Molecular Biology and Acting Virology Laboratory Supervisor at 651-201-5257 or the Virology Laboratory at 651-201-5248.

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****Please forward this to all appropriate personnel within your institution and Health System****

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