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To: Nebraska Laboratories

From: Nebraska Public Health Laboratory

RE: Pandemic Influenza Laboratory Testing Questions and Answers

Hello All:

We continue to receive questions from laboratory facilities related to laboratory preparation for pandemic flu or H5N1 avian influenza. Below you will find these questions and our answers. Please note that this information compliments the *Pandemic Influenza Laboratory Testing Guideline Document* that is on our website.

As we continue to receive questions, we plan to send documents like this out periodically to all members of the Nebraska Laboratory Network. Please be aware that this is still a dynamic event and preparation activities/guidelines may change based on influenza prevalence and type. Real-time informational updates will be sent out as the NPHL receives information and guidance from the CDC and the NHHSS Epidemiology Department.

**1. Nasal washings are listed as the specimen of choice on the NPHL website. Is this the only type of acceptable specimen?**

No. A nasopharyngeal specimen would be the optimum specimen for detecting seasonal influenza, however the CDC is not sure yet if and when a pandemic starts if other specimen sources- such as a bronchial alveolar lavage (BAL) would be optimum. The specimen choice will depend on how the virus mutates in the human host.

Currently, the appropriate specimen sources are: nasopharyngeal washing, nasopharyngeal swab, nasopharyngeal aspirate, and BAL.

**2. What are the storage requirements?**

Viral media must be stored refrigerated; ice packs included with shippers must be stored frozen. Because either the NPHL or the CDC may decide to test for other viruses, we would want the specimens kept at 4° C (do not freeze) after collection, during storage, as well as during shipment. This can be done either by refrigeration or cold packs. If the specimen is not kept at 4° C, the possibility of recovering viable virus would be greatly reduced, however the PCR test would not be affected. Specimens for culture must also be kept at 4° C and be received in the laboratory within 72 hours of collection.

NPHL Client Services should be contacted if you have questions about sending specimens (402-559-2440 or toll free 866-290-1406).

**3. Is there transport media?**

Yes. As in 2005, the NPHL, as part of the NHHSS normal or seasonal influenza statewide influenza surveillance plan, will send out five specimen collection kits to most hospital laboratories that performed a rapid antigen test for influenza. If influenza A H5N1 has been documented in Nebraska, the remaining kits will be sent out through NPHL Client Services as requested by hospital laboratories in coordination with the NHHSS Epidemiology Department.



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**4. I have been asked what "equipment" and how much space we would need if we were collecting specimens off site.**

This is a good question and can only be answered based on the "influenza situation" in the United States or Nebraska. Refrigerated storage for transport media and frozen storage for ice packs, both less than the size of a small shoebox. Ambient storage space is also needed for Styrofoam shipping boxes and paper work, about the size of a small waste paper can.

It would be prudent to visit with your institutional infectious disease control personnel as well as emergency room staff to take a look at these issues. Most communities should be working with their local public health district/department directors as well as their local community-planners. If a Metropolitan Medical Response System (MMRS) represents your community, they may have plans regarding alternative triage and care facilities. .

**5. If refrigeration is required, I assume I would need to have coolers available to maintain specimens while waiting for transport.**

Yes. If shipping specimens via NPHL or private courier, these couriers will have adequate shipping materials so that the specimens will remain refrigerated. If you were to use a commercial carrier such as DHL, FedEx, or UPS, refrigerated packaging will be required.

Styrofoam shipping containers will be included part of the surveillance kit and will be provided by NPHL. These shippers are appropriate for both FedEx and ground courier.

NPHL Client Services should be contacted if you have questions about sending specimens (402-559-2440 or toll free 866-290-1406).

Please contact me via email ([asambol@unmc.edu](mailto:asambol@unmc.edu)) if you have any questions or comments.

Thank you,

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