

Epidemiologic Criteria for Submission of Specimens to NYSDOH Wadsworth Center 4/26/09

For MARO, NYC-metropolitan counties only (Nassau, Suffolk, Westchester, Rockland):

- **At this time, NO specimens from suspect cases with mild illness should be sent to Wadsworth Center.**
- First priority are specimens from hospitalized, critically ill patients (ICU).
- Second priority are specimens from hospitalized, severely ill patients associated with an ILI outbreak, or with a non-subtypeable Influenza A.
- Third priority are specimens from non-hospitalized, severely ill patients associated with an ILI outbreak, or with a non-subtypeable Influenza A.

For rest of MARO, CDRO, CNYRO, WRO:

- Specimens must be from suspect cases meeting the case definitions (as defined below), ILI outbreaks, or from persons with non-subtypeable Influenza A. The highest priority specimens are from patients with non-subtypeable Influenza A.
- As swine influenza disease is confirmed in other geographic regions of the state, those affected regions will then follow the guidance detailed above for NYC-metropolitan counties.

General requirements for all counties:

- County health departments will be the primary gatekeeper for submission of specimens and will need to work closely with their hospitals.
- All specimens should have detailed clinical information and travel history clearly documented.
- The clinician should complete the NYSDOH Virus Detection History Form, DOH-1795 (<http://www.wadsworth.org/divisions/infdis/virology/forms/VRSLPatientHistoryFormDOH-1795.pdf>) noting testing is for a suspect case of swine influenza. Also note relevant patient travel history on this form and results of any influenza laboratory testing that has already been performed.
- Specimens should be shipped refrigerated (not frozen) overnight to Wadsworth Center, Griffin Laboratory. Specific instructions and contact information for providers are available at: <http://www.wadsworth.org/divisions/infdis/virology/collectsubmit.htm>.
- Please see the detailed guidelines, “Diagnostic Laboratory Testing for Suspected Swine Influenza” attached.
- Limit of 2-3 specimens per day per county.
- Counties must call their Regional Epidemiologist to notify them of the specimens they plan to submit and confirm that they meet the outlined criteria. The Regional

Epidemiologists will then notify the NYSDOH Bureau of Communicable Disease Control. Point of contact for Regional Epidemiologists is Madhu Anand (mma02@health.state.ny.us, 518-473-4439).

CASE DEFINITIONS FOR INFECTION WITH SWINE INFLUENZA A (H1N1) VIRUS

The CDC has developed the following case definitions for the purpose of investigation of suspected, probable, and confirmed cases of swine influenza A (H1N1) virus infection:

1. A Confirmed case of swine influenza A (H1N1) virus infection is defined as a person with an acute respiratory illness with laboratory confirmed swine influenza A (H1N1) virus infection at CDC by one or more of the following tests:
 1. real-time RT-PCR
 2. viral culture
 3. four-fold rise in swine influenza A (H1N1) virus specific neutralizing antibodies
2. A Probable case of swine influenza A (H1N1) virus infection is defined as a person with an acute respiratory illness with an influenza test that is positive for influenza A, but H1 and H3 negative.
3. A Suspected case of swine influenza A (H1N1) virus infection is defined as:
 1. A person with an acute respiratory illness who was a close contact to a confirmed case of swine influenza A (H1N1) virus infection while the case was ill **OR**
 2. A person with an acute respiratory illness with a recent history of contact with an animal with confirmed or suspected swine influenza A (H1N1) virus infection **OR**
 3. A person with an acute respiratory illness who has traveled to an area where there are confirmed or probable cases of swine influenza A (H1N1) ****INCLUDING TRAVEL TO NEW YORK CITY**

Definitions of Respiratory Illness:

1. Acute respiratory illness
Recent onset of at least two of the following:
 1. rhinorrhea or nasal congestion
 2. sore throat
 3. cough
 4. fever or feverishness
2. Influenza-like illness: fever >37.8°C (100°F) plus cough or sore throat

Diagnostic Laboratory Testing for Suspected Swine Influenza

- Collect one nasopharyngeal swab or nasopharyngeal aspirate or nasopharyngeal wash, for submission to the Wadsworth Center for molecular testing. Note: preferred specimen is nasopharyngeal swab in viral transport medium. **Use Dacron or rayon swabs with a fine-tip flexible metal shaft swab, or NP-flocked swab with flexible plastic shaft, for nasopharyngeal swab. Do not use calcium alginate or wooden-shafted swabs. Place swab in sterile vial containing 2ml of viral transport medium. Keep sample cold (4°C) after collection.**

Collection Guidelines:

- **Nasopharyngeal swab:** Use a swab with a fine, flexible metal shaft and Dacron or rayon tip, or a flocked swab with long, flexible, plastic shaft, specific for nasopharyngeal swab sample collection. Insert swab into posterior nasopharynx. Rub swab against mucosal surface and leave in place for 5 seconds to absorb secretions. Collection of specimens from both nostrils increases amount of material available for analysis. Place swab in a vial of viral transport medium. Use scissors to cut metal shaft, or snap plastic shaft of flocked swab, so that top of vial can be screwed on tightly.
- **Nasopharyngeal aspirate:** Requires source of suction (syringe, vacuum pump, or wall suction), specimen trap with two outlets, and catheter (no. 6 to 14 depending on size of patient). Without applying suction, insert catheter through nose into posterior nasopharynx (approximately the distance from tip of the nose to the external opening of the ear when measured in a straight line). Apply gentle suction, leaving catheter in place for a few seconds, then withdraw slowly. Suction contents of a vial of viral transport medium or non-bacteriostatic saline through catheter tubing to assist in moving material from tubing into trap and to add viral transport media to specimen. Transfer specimen to a screw cap tube for transport to laboratory.
- **Nasopharyngeal wash:** Use rubber bulb (1-2oz for infants) or syringe to instill 3-5 ml of non-bacteriostatic saline into one nostril while occluding the other. If patient is able to co-operate, instruct them to close glottis by making a humming sound with mouth open. If a rubber bulb is used, release pressure on bulb to allow saline and mucus to enter bulb. Remove from nose and squeeze into vial of transport media. If syringe is used, apply suction to syringe to recover saline and nasal secretions. Alternately, hold sterile container such as urine cup under patient's nose and ask patient to expel material into it. In either case, add recovered saline-nasal secretions to a vial of viral transport media.
- Results of testing of initial cases suggest that rapid EIA influenza tests may be insensitive for the detection of swine influenza A (H1N1) and these assays should not be relied on as screening tests for this agent. However, a rapid influenza antigen detection test may be performed on the nasopharyngeal/oropharyngeal sample using standard BSL2 work practices in a Class II biological safety cabinet. Regardless of the result, specimens should still be referred to the Wadsworth Center for further testing.

- Submit a completed Virus Reference and Surveillance Laboratory patient history form (<http://www.wadsworth.org/divisions/infdis/virology/forms/VRSLPatientHistoryFormDOH-1795.pdf>) with the specimens.
- Viral culture may be performed on respiratory specimens from patients suspected of having swine influenza A (H1N1) infection, who meet the surveillance criteria as described in the advisory update. All specimen manipulations and viral culture procedures should be performed under BSL2 containment with enhancements as described in the laboratory safety guidelines.
- It is essential that specimens be sent to the Viral Reference and Surveillance Laboratory at the Wadsworth Center Griffin Laboratory as soon as possible after collection. If shipped within two days of collection, store at 4°C post-collection and ship with cold packs to maintain temperature at 4°C. Do not use wet ice. If shipment is delayed >2days, then the specimens should be stored frozen at -70°C and shipped on dry ice.
- It is the shipper's responsibility to ensure that appropriate shipping materials are used. Please contact your carrier for shipping and packaging information. Patient specimens must be shipped as "Diagnostic Specimens." All specimens must be shipped "Priority Overnight" and received within 24 hours via chosen carrier. Specimens should ONLY be shipped Sunday - Thursday so that appropriate laboratory personnel can be present to accept and accession specimens Monday - Friday.

Address for courier shipping:

Wadsworth Center, NYSDOH
Griffin Laboratory
Virus Reference and Surveillance Laboratory
5668 State Farm Road (Rt. 155)
Slingerlands, NY 12159