New Jersey Department of Health
Surveillance Criteria and Testing for Influenza A (H3N2v) in Humans
Protocol for Healthcare Providers and Local Health Departments
September 2, 2014

Key steps in case screening for H3N2v influenza

1. Confirm that the case meets current SURVEILLANCE CRITERIA
2. Ensure implementation of CONTROL MEASURES
3. Ensure COLLECTION OF SPECIMENS for diagnostic testing
4. Ensure NOTIFICATION procedures are followed
5. Ensure completion of the NOVEL INFLUENZA INVESTIGATION FORM

SURVEILLANCE CRITERIA for swine influenza (H3N2v) infection:
An ill person must meet the following clinical and epidemiologic criteria to be considered for testing:

- Has or had a documented temperature of > 38°C (>100°F); AND has had cough and/or sore throat; AND has had at least one potential exposure within 7 days of symptom onset, as listed below:
  - History of travel to a state with influenza A H3N2v documented in swine and/or humans, AND
    - Direct contact (e.g. Touching) with sick or dead swine; OR
    - Attendance at an event where swine were exhibited; OR
    - Close contact (within 3 feet) to a person who was hospitalized or died due to a severe unexplained respiratory illness; OR
    - Close contact (within 3 feet) of an ill patient who was confirmed or suspected to have H3N2v
  - Works with influenza virus in a laboratory

REPORTING AND NOVEL INFLUENZA SCREENING FORM

Healthcare Providers

Cases meeting the above surveillance criteria should be reported IMMEDIATELY to the local health department (LHD) where the patient resides. If patient residence is unknown, report to your own local health department. Local health departments are available 24/7. Contact information for local health departments during business hours can be found at: www.localhealth.nj.gov. Contact information for local health departments after business hours or on weekends can be found at: http://nj.gov/health/lh/documents/lhd_after_hoursEmergContactNumbers.pdf.
If LHD personnel are unavailable, healthcare providers should report the case to the New Jersey Department of Health (NJDOH), Communicable Disease Service (CDS) at 609-826-5964, Monday through Friday 8:00 AM - 5:00 PM. On weekends, evenings and holidays, CDS can be reached at (609) 392-2020.
Local Health Departments

When a local health department receives a report of a suspect case of novel influenza A (H3N2v) in a human, the protocols contained within this document for screening, treatment, and collection of lab specimens should be followed. Information should be communicated IMMEDIATELY to the NJDOH CDS at 609-826-5964, Monday through Friday 8:00 AM - 5:00 PM. On weekends, evenings and holidays, CDS can be reached at (609) 392-2020.

The healthcare provider or local health department should complete the NOVEL INFLUENZA A CASE SCREENING FORM (please see last page of this document). Completed forms should be faxed to CDS at 609-826-5972. This form will be reviewed by CDS staff who will make the final determination if the case meets surveillance criteria and if a specimen is required for testing.

Infection Control

There are no data to indicate that the transmission characteristics of the H3N2v virus will be different than those of seasonal influenza viruses. As a result, CDC advises that the infection control principles and actions relevant for seasonal influenza are appropriate for the control of H3N2v as well. Guidance regarding infection control in health care facilities can be found on the CDC web (http://www.cdc.gov/flu/professionals/infectioncontrol/index.htm).

COLLECTION AND TRANSPORT OF CLINICAL SPECIMENS for Patients Who Meet H3N2v Surveillance Criteria:

The NJDOH’s Division of Public Health and Environmental Laboratories (PHEL) has the ability to test human specimens by RT-PCR for this virus. The timeframe in which testing is conducted by PHEL will be determined on a case-by-case basis. Specimens must be approved by public health officials prior to submission of specimens for testing. No specimen will be tested by PHEL until the case has been reviewed and approved by the CDS staff.

General Considerations

- Appropriate infection control procedures should be followed when collecting samples. This information can be found in the control measures, precautions in healthcare facilities section.
- Detection of H3N2v is more likely from specimens collected within the first 3 days of illness onset.

Collection

Samples should be obtained using at least one of the following techniques:

A. Nasopharyngeal (NP) and oropharyngeal (OP) swab
   - Collect specimen with a sterile Dacron/nylon swab with a non-wooden shaft (do NOT use calcium alginate swabs or swabs with wooden sticks).
For NP swab, insert swab into each nostril parallel to the palate and leave in place for a few seconds to absorb secretions. Swab both nostrils.

For OP swab, swab the posterior pharynx and tonsillar areas, avoiding the tongue.

Place swab immediately into sterile vials containing 2 ml of viral transport media.

Label each specimen container with patient’s FIRST AND LAST NAME, date of birth, medical record number, date of collection and specimen type.

Place specimen vial onto ice or in refrigerator prior to and during transport. Do not freeze.

B. Nasopharyngeal wash/aspirates

- Have the patient sit with head tilted slightly backward.
- Instill 1ml-1.5ml of nonbacteriostatic saline (pH 7.0) into one nostril.
- Insert the tubing into the nostril parallel to the palate.
- Aspirate nasopharyngeal secretions. Repeat this procedure for the other nostril.
- Rinse the catheter into viral transport medium (syringe or bulb) or aspirate viral transport media through catheter into collection trap.
- Label specimen container with patient’s FIRST AND LAST NAME, date of birth, medical record number, date of collection and specimen type.
- Place specimen vial onto ice or in refrigerator prior to and during transport. Do not freeze.

C. Bronchoalveolar lavage or tracheal aspirate

- During bronchoalveolar lavage or tracheal aspirate, use a double-tube system to maximize shielding from oropharyngeal secretions.
- Centrifuge half of the specimen, and fix the cell pellet in formalin. Place the remaining unspun fluid in sterile vials with external caps and internal O-ring seals. If there is no internal O-ring seal, then seal tightly with the available cap and secure with Parafilm®.
- Label specimen container with patient’s FIRST AND LAST NAME, date of birth, medical record number, date of collection and specimen type.
- Place specimen vial onto ice or in refrigerator prior to and during transport. Do not freeze.

D. The SRD-1 form (available at http://www.state.nj.us/health/forms/srd-1.pdf) should be completely filled out for each specimen that is sent.

Shipping

CDS staff will carefully evaluate each report to determine the immediacy in which the specimen should be transported and tested. If CDS staff feels that immediate testing of the sample is warranted, the local health department and hospital will be asked to assist in transporting specimens to PHEL. In most cases CDS will ask the facility or LHD to hand carry specimens to PHEL on the same day the specimen was approved for testing. If CDS determines the case to be a low priority, commercial carriers can be used to ship samples, which should be handled as
Biologic Substance, Category B. Information on shipping regulations for these carriers can be found at www.iata.org or www.hazmat.dot.gov.

REFERENCES

NJDOH Information
http://nj.gov/health/flu/surveillance.shtml

CDC Information
http://www.cdc.gov/flu/index.htm
http://www.cdc.gov/flu/swineflu/index.htm
**Novel Influenza A Case Screening Form**

*May be used by local health departments for report under investigation for possible human infection with novel influenza A viruses (e.g., variant H3N2v, avian H7N9).*

<table>
<thead>
<tr>
<th>Patient Name:</th>
<th>Patient DOB: <strong><strong>/</strong></strong>/______</th>
<th>Sex: □ Male □ Female □ Unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient Address:</td>
<td>Age: ______ □ Years □ Months</td>
<td>If Age Unknown: □ Child □ Adult</td>
</tr>
<tr>
<td>Patient Phone:</td>
<td>Parent/guardian name (for minors):</td>
<td></td>
</tr>
</tbody>
</table>

**Date of report: (mm/dd/yyyy):____/____/______ **  **CDRSS #:**

**Indicate how case was identified**
- [ ] Clinician notified health department
- [ ] Unusual lab result
- [ ] Ill traveler identified returning to US
- [ ] Other: ____________________________

**Date of illness onset (mm/dd/yyyy): ____/____/______**

**Symptoms:**
- [ ] Fever (≥100°F)
- [ ] Cough
- [ ] Sore Throat
- [ ] Fatigue
- [ ] Vomiting
- [ ] Headache
- [ ] Muscle aches
- [ ] Red/draining eyes
- [ ] Other: ____________________________

**Was person hospitalized for this illness?**
- [ ] Yes
- [ ] No
- [ ] Unknown

If Yes, date of admission: (mm/dd/yyyy): _____/_____/______

**Name of Facility: ____________________________**

**Was the patient admitted to the ICU?**
- [ ] Yes
- [ ] No
- [ ] Unknown

If yes, date of admission to ICU (mm/dd/yyyy): _____/_____/______

**Did person die as a result of this illness?**
- [ ] Yes
- [ ] No
- [ ] Unknown

If Yes, date of death: (mm/dd/yyyy): _____/_____/______

**Did person have contact with swine in the 10 days prior to illness onset?**
- [ ] Yes
- [ ] No
- [ ] Unknown

*Contact may be directly touching swine or walking through an area where swine are present. (If Yes, describe):* ____________________________

**Did person have contact with poultry/birds in the 10 days prior to illness onset?**
- [ ] Yes
- [ ] No
- [ ] Unknown

*Contact may be directly touching poultry/birds or walking through an area where poultry/birds are present. (If Yes, describe):* ____________________________

**Did person travel ≤ 10 days prior to illness to an area where confirmed cases of novel influenza A were reported?**
- [ ] Yes
- [ ] No
- [ ] Unknown

If Yes, list destination and dates of travel (including date of return to US):

**Did person attend an agricultural event (such as a fair or live animal market) ≤ 10 days prior to illness?**
- [ ] Yes
- [ ] No
- [ ] Unknown

If Yes, list events and dates of attendance:

**Did person have contact ≤ 10 days prior to illness with someone who had fever or respiratory illness?**
- [ ] Yes
- [ ] No
- [ ] Unknown

If Yes, describe relationship and dates of contact:

**Was this person tested for influenza?**
- [ ] Yes
- [ ] No
- [ ] Unknown

**Test type:**
- [ ] Rapid antigen
- [ ] RT-PCR
- [ ] Other

**Test result:**
- [ ] Influenza A
- [ ] Influenza B
- [ ] Influenza A/B (type not distinguished)
- [ ] Negative
- [ ] Other: ____________________________

**Specimen collection date (mm/dd/yyyy): ____/_____/______**

**Has a specimen been sent to PHEL?**
- [ ] Yes
- [ ] No

**What PPE did healthcare personnel use when caring for patient or obtaining specimens?**
- [ ] N95 mask
- [ ] Surgical mask
- [ ] Eye protection
- [ ] Gloves
- [ ] Gown
- [ ] None
- [ ] Unknown

**Is this person a contact of another case under investigation, or probable or confirmed case?**
- [ ] Yes
- [ ] No
- [ ] Unknown

If Yes, please provide name or CDRSS # of contact.

<table>
<thead>
<tr>
<th>Name/Contact of Treating Physician:</th>
<th>Name/Contact of Person Completing Form:</th>
</tr>
</thead>
</table>