

New Jersey Department of Health and Senior Services
Surveillance and Testing for Novel Influenza A (H1N1) in Humans
Protocol for Healthcare Providers and Local Health Departments

SURVEILLANCE CRITERIA for novel influenza A (H1N1) infection:

NJDHSS is asking that clinicians report any cases meeting the following criteria

1. Influenza-like illness (i.e., fever $\geq 37.8^{\circ}\text{C}$ (100°F) plus cough and/or sore throat in the absence of another known cause) in an individual who has been admitted to an intensive care unit of an acute care facility, **OR**
2. Influenza encephalopathy (defined as altered mental status or personality changes in patients lasting more than 24 hours and occurring within 5 days of the onset of an acute febrile respiratory illness) in an individual less than 18 years of age, **OR**
3. Any deaths meeting one of the following criteria
 - o Any death associated with influenza-like illness in which there is a positive influenza test (i.e., rapid influenza diagnostic testing, viral isolation, RT-PCR);
 - o Sudden pediatric death (i.e., death involving an individual less than 18 years of age) from an unknown cause, but thought to be natural;
 - o A pediatric death from an unknown, febrile respiratory illness;
 - o Any unexplained death in a person of any age involving a febrile respiratory illness

REPORTING

Healthcare Providers

Cases meeting the above surveillance criteria should be reported **IMMEDIATELY** to the local health department (LHD) where the patient resides. If LHD personnel are unavailable, healthcare providers should report the case to the New Jersey Department of Health and Senior Services Communicable Disease Service (CDS) at 609-588-7500, Monday through Friday 8:00 AM - 5:00 PM. On weekends, evenings and holidays, CDS can be reached at (609) 392-2020.

No specimen will be tested by the New Jersey Division of Public Health and Environmental Laboratories (PHEL) until the case has been reported in CDRSS or via phone and reviewed by public health officials. Preliminary and final results will be relayed to the specimen submitter via fax as soon as they are available.

Local Health Departments

When a local health department receives a report of a human suspect case of novel influenza A (H1N1), the protocols contained within this document for case reporting and specimen collection, submission and transport should be followed. Information collected on suspect cases should be entered into the Communicable Disease Reporting and Surveillance System (CDRSS). LHDs do not need to call in suspect cases to NJDHSS as long as the case is entered into CDRSS. All deaths should be communicated **IMMEDIATELY** to the CDS at 609-588-7500, Monday through Friday

8:00 AM - 5:00 PM. On weekends, evenings and holidays, CDS can be reached at (609) 392-2020. An additional web-based reporting form may need to be completed for pediatric cases meeting the surveillance criteria specified above. Results of specimens tested at PHEL will be electronically entered into CDRSS. NJDHSS will not be notifying LHDs about laboratory results from individual cases. CDRSS should be checked regularly for updated information.

CDRSS/Case follow-up

All cases meeting the above reporting criteria should be entered into CDRSS. In depth follow-up should be completed on all these cases. The CDRSS record should include demographic, risk factor, sign/symptom, vaccination, treatment, laboratory, and outcome information. Additional forms or entry into other systems may need to be completed on select patients (e.g., pediatric influenza).

Specimens submitted by sentinel providers or sentinel laboratories to PHEL will be electronically entered into CDRSS. Investigations on these cases are not required, but basic demographic data should be entered in CDRSS on these cases. Results from commercial laboratories (e.g., Quest, Labcorp) *do not* need to be entered into CDRSS as long as these cases do not meet the above surveillance and testing criteria. Local health agencies should monitor these reports when received in the event that public health action is necessary on these cases.

COLLECTION AND TRANSPORT OF CLINICAL SPECIMENS for Patients Who Meet H1N1 Surveillance Criteria

PHEL has the ability to perform a PCR-based influenza screening panel to detect seasonal influenza viruses (AH1, AH3, and B). If an influenza A virus cannot be subtyped using this test, the result is classified as “influenza A unsubtypeable.” All specimens classified as influenza A unsubtypeable are tested for the novel influenza A H1N1 virus. The turnaround time for a specimen is 48 to 72 hours after specimen receipt at PHEL but may be longer during peak testing times.

Collection

Only **ONE** good quality specimen per patient should be submitted to PHEL. A specimen of good quality can be obtained by collecting specimens within the first 3 days of illness onset **AND** following the collection instructions below. More than one specimen from multiple sites will be accepted from autopsies (see below).

The following samples should be obtained:

- A. Nasopharyngeal (NP)/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. Use the same swab for both nostrils.
 - For OP swab, swab the posterior pharynx and tonsillar areas, avoiding the tongue.
 - Place swab immediately into a sterile vial containing 3 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 1 ml-1.5 ml 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.
- Transfer approximately 3 ml of the specimen into a sterile container (please do not submit the aspiration device).
- 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.

C. Bronchoalveolar lavage or tracheal aspirate

- During bronchoalveolar lavage or tracheal aspirate, use a double-tube system to maximize shielding from oropharyngeal secretions.
- Transfer 3 ml of the unspun fluid into a sterile vial with a tight fitting cap.
- 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.

D. Post Mortem specimens

- Multiple samples from multiple sites should be collected to increase diagnostic sensitivity. The following specimens are recommended:
 - NP/OP swabs collected as described above.
 - Tissue samples from the proximal and distal trachea, right and left primary bronchi and right and left hilar (central) lung.

E. The SRD-1 form (available at <http://www.state.nj.us/health/forms/srd-1.pdf>) must be completely filled out and submitted with each specimen that is sent.

F. Please contact PHEL at 609-984-2622 with questions regarding the collection and transport of specimens or for advice about specimens not listed above.

Shipping

Local health departments and hospitals will be asked to assist in transporting specimens to PHEL. 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.