

**Illinois Department of Public Health
Division of Laboratories**

**Instructions for Influenza Virus Specimen Submission
Based on Interim Guidance on Specimen Collection, Processing and Testing for Patients With
Suspected Novel Influenza A (H1N1) Virus Infection
<http://www.cdc.gov/h1n1flu/specimencollection.htm>**

This document is intended to assist you with the collection and shipping of specimens for influenza testing. **Please note, however, the Department has been provided polymerase chain reaction (PCR) testing materials from the U.S. Centers for Disease Control and Prevention (CDC) for surveillance, rather than diagnostic testing.** Currently, this includes specimens from hospitalized patients with acute febrile respiratory illness, patients who have recently died while experiencing such symptoms, and certain individuals of congregate groups that are of interest to local health department investigations. For the most current Department acceptance criteria, go to www.idph.state.il.us/h1n1_flu/index.htm and click on the “Health Care Providers” link. **Testing for diagnostic purposes, rather than surveillance, should be through a private laboratory.** A list of such laboratories, which provide PCR-based influenza testing, also can be found at the above Internet link.

Preferred respiratory specimens

The following should be collected as soon as possible after illness onset: nasopharyngeal swab, nasal aspirate or a combined nasopharyngeal swab with oropharyngeal swab. If these specimens cannot be collected, a nasal swab or oropharyngeal swab is acceptable. For patients who are intubated, an endotracheal aspirate also should be collected. Bronchoalveolar lavage (BAL) and sputum specimens are also acceptable. Specimens should be placed into sterile viral transport media (VTM), labeled, and immediately placed at 2°C to 8°C (refrigerator). **Do not send ribonucleic acid (RNA) extracts.** In the case of deceased patients, a postmortem respiratory specimen like those just described should accompany any other autopsy specimens.

Following a rapid influenza test

If a specimen has been tested by a rapid influenza test, and it is decided to follow this up with a PCR assay, it is extremely important to send a second specimen, not the remaining material from the rapid test, which will inhibit PCR and culture testing. Regardless of the rapid test result, submission to the Department for PCR testing is still restricted to the acceptance criteria described above.

Swabs

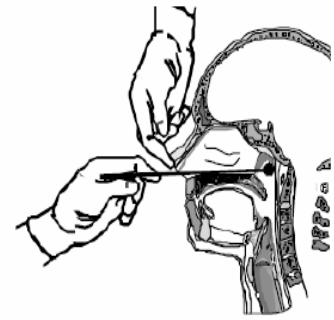
Swab specimens should be collected using swabs with a synthetic tip (e.g. polyester or Dacron®) and an aluminum or plastic shaft. Swabs with cotton tips and wooden shafts are not recommended. Specimens collected with swabs made of calcium alginate are not acceptable. The swab specimen collection vials should contain 1mL to 3mL of viral VTM. Store VTM as recommended by the manufacturer, and allow it to come to room temperature before use.

Instructions for Throat and Nasopharyngeal Swab Collection

1. Collection of a throat swab and/or a nasopharyngeal swab from each patient is optimal for culture of all respiratory viruses. If collecting both a throat and a nasopharyngeal swab, both swabs should be combined in the same vial of viral transport medium.
2. Aseptically remove the sterile swab from the package. Collect throat swabs by vigorous swabbing of the posterior pharynx and tonsil regions, using a rigid shaft swab. Aseptically remove the cap

from the VTM. Place the swab in a tube of transport medium, being careful to avoid touching the sides or rim of the tube. Break the shaft. Close tightly. Refrigerate immediately after collection.

3. Collect nasopharyngeal swabs by inserting a flexible swab through each nostril deeply into the nasopharynx (aiming toward the ear). Rotate, remove and place the swab in a tube of transport medium. Break the shaft. Close tightly.
4. Label the specimen vial with the patient's name and collection date. **Refrigerate immediately.** Complete all the information on the "Request for Respiratory Influenza Testing" requisition form.



Instructions for Specimen Transport

1. Ship specimens within 24 hours of collection. Avoid shipping specimens over weekends and holidays.
2. **Messenger/Courier by ground transport:** Wrap specimen(s) individually in absorbent material. Place wrapped specimen(s) into a biohazard bag and seal securely. Place the test requisition(s) in the outside pouch of the biohazard bag. Place the sealed bag with the test requisition(s) inside the shipping container, **add cold packs.** The shipping container must be rigid, such as a cooler, and labeled with the UN 3373 Biological Substance Category B marking. Close securely.
3. **Commercial carrier by ground/air transport:** Wrap specimen(s) individually in absorbent material. Place the wrapped specimen(s) inside a biohazard-labeled 95 kPa bag and seal following the instructions on the bag. Place the test requisition(s) in the outside pouch of the 95 kPa bag. Place the sealed 95 kPa bag and completed requisition(s) inside the outer shipping container, **add cold packs** and close securely. If testing at the Department has been approved (see section above), label the outer shipping container with the appropriate Illinois Department of Public Health laboratory address. Complete the return address section to include the name of the person shipping the package, business name and address, and a business phone number. The shipping container must include the UN 3373 Biological Substance Category B marking.
4. Ship specimens by the fastest delivery method possible. This can be accomplished by use of a local courier or commercial shipping corporations. If approved for testing at the Department (see section above), ship to the attention of the Molecular Diagnostics Lab at the closest Department laboratory.

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Note: Shipping containers will not be returned.