



## Diagnostic Testing Using Nasopharyngeal Swabs

### INSTRUCTIONS ON NASOPHARYNGEAL SPECIMENS FROM HOSPITALIZED PATIENTS WITH SEVERE UNEXPLAINED FEBRILE RESPIRATORY ILLNESS

These laboratory instructions provide guidance on what specimens to collect and how to arrange transportation. It is absolutely critical that specimens be collected properly, labeled properly, stored refrigerated and submitted with a completed PHL laboratory submission form.

**WHO:** Hospitalized patients with severe unexplained febrile respiratory illness

**WHAT:** Preferred specimen is 1-2 nasopharyngeal swabs in 2-3 ml viral transport medium\* (VTM). Specimens should be collected within the first 24-72 hours of onset of symptoms, and no later than 5 days after onset of symptoms.

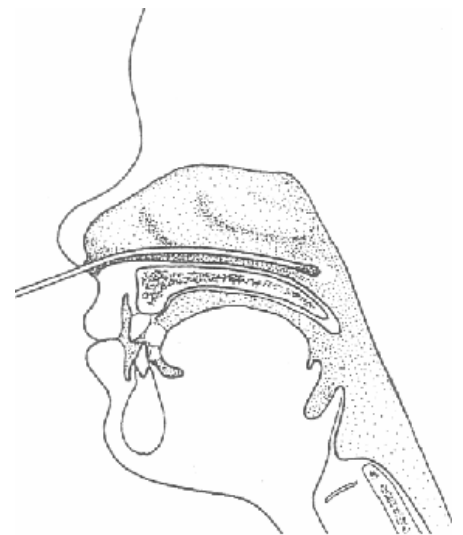
#### **HOW:**

##### **Use infection control precautions:**

- Personal protective equipment: fit-tested disposable N95 respirator [if unavailable, wear a medical (surgical mask)], disposable gloves, gown, and goggles.
- When completed, place all PPE in a biohazard bag for appropriate disposal.
- Wash hands thoroughly with soap and water or alcohol-based hand gel.

##### **How to do a nasopharyngeal swab**

- Use a flexible fine-shafted aluminum swab with a polyester (dacron or rayon, not cotton) tip.
- Insert swab into the nostril and back to the nasopharynx and leave in place for a few seconds.
- Slowly withdraw swab with a rotating motion.
- Place tip of the swab into a vial containing 2–3 ml of virus transport medium\* and cut the shaft.
- Label the transport tube with the patient first and last name, DOB, type of specimen, and date and time of collection.



- Complete the PHL virus isolation specimen submission form

([http://www.nyc.gov/html/doh/html/labs/labs\\_forms.shtml](http://www.nyc.gov/html/doh/html/labs/labs_forms.shtml)). **\*\*Failure to complete or submit this form with the specimen could result in disposal of the specimen\*\***

- A second swab should be used for the second nostril.
- **Swabs of anterior nares and throat swabs are NOT acceptable for influenza testing.**



**Health**  
(cont.)

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**Storage**

- o Place specimen(s) in a biohazard bag.
- o Keep specimen(s) refrigerated at 4°C until pick-up.
- o If specimens cannot be processed within 48-72 hrs, they should be kept frozen at or below -70 °C.

**Transportation to the Public Health Laboratory**

- o Insert the completed laboratory submission form.
  - o Tips for completing the form:
    - Under DOHMH Bureau, check BCD
    - Under DOHMH Contact, put in the name of the contact person you spoke with
    - Under Test(s) requested, check Influenza A and B Direct Antigen Detection, Influenza A real-time RT-PCR, Influenza A Subtyping (H1/H3) real-time RT-PCR (see below)
    - Information on the form and the specimen has to match (name of pt, DOB, Specimen type, date and time of collection).
- o Contact 917-438-9766 (Provider Access Line) to make a request to the DOHMH for pick-up.

4. TEST(S) REQUESTED*	
<input checked="" type="checkbox"/> Influenza A and B Direct Antigen Detection	<input type="checkbox"/> Rotavirus Direct Antigen Detection
<input checked="" type="checkbox"/> Influenza A and B real-time RT-PCR	<input type="checkbox"/> RSV Direct Antigen Detection
<input checked="" type="checkbox"/> Influenza A Subtyping (H1/H3) real-time RT-PCR	<input checked="" type="checkbox"/> Virus Isolation/Detection
<input checked="" type="checkbox"/> Influenza A/H5 real-time RT-PCR (DOHMH Request ONLY) <sup>1</sup>	<input type="checkbox"/> Other (specify): _____
<input type="checkbox"/> Smallpox Rule-Out Assays (DOHMH Request ONLY) <sup>1</sup>	<input type="checkbox"/> Other (specify): _____

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\* *Virus transportation medium* for use in collecting nasopharyngeal specimens  
 Add 10 g veal infusion broth and 2 g bovine albumin fraction V to sterile distilled water (to 400 ml).  
 Add 0.8 ml gentamicin sulfate solution (50 mg/ml) and 3.2 ml amphotericin B (250 µg/ml). Sterilize  
 by filtration.