Newfoundland Labrador

Health and Community Services

PUBLIC HEALTH LABORATORY
Guidance on Specimen Collection and Submission for Patients with Suspected Pandemic H1N1 2009 Influenza

Diagnostic testing for influenza, both seasonal and pandemic, is centralized at the Public Health Laboratory. PHL has the capability to meet routine seasonal demands as well as the anticipated increased demands during the pandemic. However, the peak demand for testing services, the duration of that peak period, the continued availability testing supplies as well as human resources during the pandemic cannot be accurately predicted. PHL will limit testing as the pandemic progresses, and make testing selective, based on patient care and surveillance needs. This will also depend on the availability of PHL resources if the demand becomes overwhelming. PHL is a partner within the national public health laboratory network and will maintain activities and adhere to protocols that are consistent with the Canadian Pandemic Plan. This includes monitoring of influenza virus strains for antiviral resistance, and this information is released in aggregate form periodically for surveillance purpose.

Test Methodology

Real-time PCR is the recommended test for pandemic H1N1 2009 flu virus and this test is routinely performed at the PHL. This methodology can identify H types of influenza A virus and differentiate seasonal H1N1 and H3N2 strains from the pandemic H1N1 2009 strain.

Availability of Testing Service

Testing service is routinely available 5 days/week, with provision to extend coverage to 7 days/week during the pandemic. Stat request will be attended to 24/7. The test results are available within 24-48 hours of specimen receipt at the PHL.

Specimen Collection Swab and Transport Medium

Specimens should be collected using **flocked swab** and submitted in **UTM viral transport medium**. These are supplied by the PHL to all regional hospital labs. Please contact your regional microbiology lab to obtain the supplies. Clinics in the St. John's area should contact the PHL. There is sufficient supply to meet the increased demand during the first 2-3 months of the peak pandemic, but the supply may be limited as the pandemic progresses.

Recommended Respiratory Specimens

- At present, **nasophayngeal swab** or **nasal aspirate** is the specimen of choice. If these specimens cannot be collected, a nasal swab or oropharngeal swab may be collected.
- For intubated patients, an endotracheal aspirate or bronchoalveolar lavage (BAL) should also be collected.

Instructions for Specimen Collection and Submission

- Specimens should be ideally collected within the **first three days after onset** of symptoms; those taken later are less likely to yield the virus. See below detailed instructions for collection of nasopharyngeal specimens.
- Include relevant clinical data on test requisition
- Refrigerate specimens promptly after collection. All clinics should channel specimens through their regional hospital labs. Regional labs should courier specimens to the PHL as soon as possible, or within 72 hrs on ice packs. If a longer delay is anticipated, specimens must be frozen at -70C and shipped on dry ice.

For additional information, contact PHL. Telephone: 777 6535; 777 6536; 777 6583

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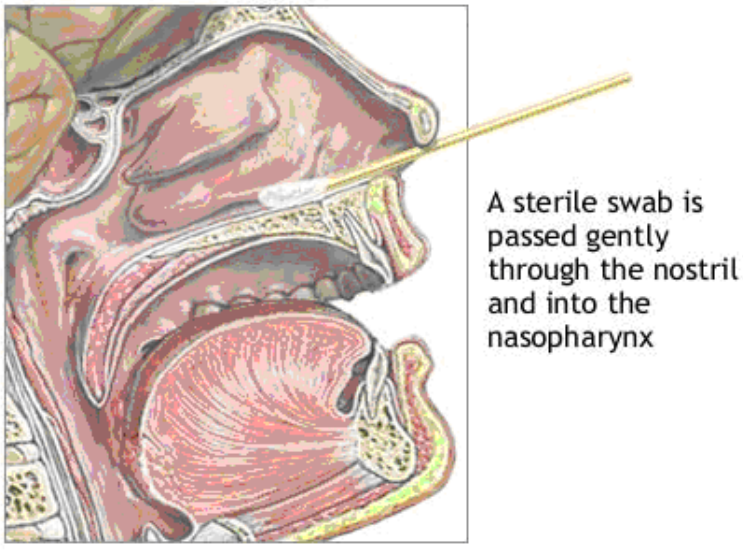
Instructions for Collection of Nasopharyngeal Swab

1. Use the swab supplied with the viral transport media.
2. Explain the procedure to patient.
3. When collecting the specimens, wear eye protection, gloves, and a mask. Change gloves and wash your hands between each patient.
4. If the patient has a lot of mucus in the nose, this can interfere with the collection of cells. Either ask the patient to use a tissue to gently clean out visible nasal mucus or clean the nostril yourself with a cotton swab (e.g. Q-Tip).
5. How to estimate the distance to the nasopharynx: Prior to insertion, measure the distance from the corner of the nose to the front of the ear and insert the shaft approximately 2/3 of this length.
6. Seat the patient comfortably. Tilt the patient's head back slightly to straighten the passage from the front of the nose to the nasopharynx to make insertion of the swab easier.
7. Insert the swab along the medial part of the septum, along the floor of the nose, until it reaches the posterior nares; gentle rotation of the swab may be helpful. (If resistance is encountered, try the other nostril; the patient may have a deviated septum.)
8. Allow the swab to sit in place for 5-10 seconds.
9. Rotate the swab several times to dislodge the columnar epithelial cells. *Note: Insertion of the swab usually induces a cough.*
10. Withdraw the swab and place it in the collection tube. Replace cap securely.
11. Refrigerate immediately.
12. Remove gloves.
13. Wash hands.
14. Attach completed requisition.
15. Transport to the laboratory.



A sterile swab is passed gently through the nostril and into the nasopharynx

For a video on collection of an NP swab please see:
http://www.youtube.com/watch?v=TFwSefezlHU