



Newfoundland & Labrador

PROVINCIAL PUBLIC HEALTH LABORATORY NETWORK

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MEMORANDUM

TO: ALL HEALTH CARE PROVIDERS IN NEWFOUNDLAND AND LABRADOR

FROM: PUBLIC HEALTH MICROBIOLOGY LABORATORY

RE: RESPIRATORY TESTING MEMORANDUM – FALL 2022

Testing for seasonal influenza (FLU), SARS-CoV-2 (COVID-19 virus) and other respiratory infectious agents is performed at the Public Health Microbiology Laboratory (PHML).

Some RHA sites do provide SARS-CoV-2 testing using rapid testing technologies.

Specimens from symptomatic institutional residents, inpatients, children ≤ 2 years old and outbreaks will be prioritized for the full panel of respiratory pathogens including SARS-CoV-2 and FLU.

If an outpatient specimen is a priority for medical management, please provide clinical context on the requisition for broad respiratory testing for approval by the Microbiologist-On-Call (MOC). Currently respiratory testing for outpatients is triaged for SARS-CoV-2 testing only.

Test Methodology

Since the unprecedented COVID-19 pandemic, respiratory testing has been performed on one of two molecular testing assays now employed at the PHML, termed LDT (laboratory developed test) and Seegene (commercial assay). Both assays have broad panels that can detect FLU A/B and COVID-19. Seegene panel includes testing SARS-CoV-2, influenza A virus, influenza B virus, and human respiratory syncytial virus (RSV). In addition to these targets, LDT can detect other respiratory pathogens, e.g., rhinovirus/enterovirus, human metapneumovirus (hMPV), parainfluenza, *Chlamydomphila pneumonia*, and *Mycoplasma pneumonia*.

Supplemental H antigenic subtyping will be performed on a proportion of positive FLU A specimens for national surveillance (FluWatch Canada) and in any patients flagged to CDC/public health for having risk factors of being potentially infected with an emerging FLU subtype.

Availability of Testing Service

Every effort is made to report results within 24 hours of specimen receipt at the PHML. Any urgent requests require MOC approval which can be reached through 709-777-6300 or microbiologistoncall@easternhealth.ca.

Specimen Collection Swab and Transport Container Medium

Specimens should be collected using a non-expired **flocked swab** and submitted in non-expired transport media validated and provided by the PHML. GeneTM and ALLTM are currently widely available transport media throughout the province. For inpatients, **ALLTM** media must be used to allow for supplemental subtyping as part of the national surveillance (FluWatch Canada) or investigation of emerging FLU subtypes.

Specimens should be transported refrigerated ASAP to the PHML (open 24/7 to receive specimens); if samples cannot be received to the PHML within 72 hours of collection, they may be frozen and shipped as such.

Recommended Respiratory Specimens

- **Nasopharyngeal swab** or **nasal aspirate** is the preferred specimen. Nasal swabs are also acceptable.
- For intubated patients, an endotracheal aspirate or bronchoalveolar lavage (BAL) are acceptable.

Step by Step Instructions for Specimen Collection and Transportation

Include relevant clinical data on test requisition.

1. Use a NON-EXPIRED flocked swab supplied with the collection transport media.
2. With LEGIBLE PRINTING, label tube with patient identifiers.
3. Explain the procedure to the patient.
4. The collector is to wear PPE, as per local Infection Control policy.
5. **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 by the collector with a cotton swab (e.g. Q-Tip).**
6. 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.
7. 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.
8. 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.)
9. Allow the swab to sit in place for 5-10 seconds.
10. Rotate the swab several times to dislodge the columnar epithelial cells. *Note: Insertion of the swab may induce a cough.*
11. Withdraw the swab and place it in the collection tube. Break swab shaft along score line. Replace cap securely.
12. Place tube in biohazard bag.
13. Remove gloves and wash hands.
14. Attach completed requisition.
15. Arrange refrigerated transport to the PHML which is open 24/7 to accept specimens. Samples can be frozen for shipping if they cannot be received to the PHML within 72 hours of collection.

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

