

Specimen Collection for COVID-19

March 26, 2020



COVID-19 Testing

Personal Protective Equipment (PPE) should be worn when collecting a respiratory specimen.

Remember to read the manufacturer's package for specific instruction regarding specimen collection and transport for the type of test kit

COVID-19 Additional Precautions

- ❑ Staff involved in patient assessment should immediately initiate their own PPE.

As soon as possible

- ❑ Place patient in a single room and implement Contact & Droplet Precautions
- ❑ A single room with hard walls, a door and dedicated toilet or commode.
- ❑ Signage should be visible on entry to room
- ❑ Notify FNIHB CDC team immediately.

CONTACT & DROPLET PRECAUTIONS



CLEAN YOUR HANDS WHEN ENTERING AND EXITING ROOM



STAFF AND VISITORS



VISITORS:

PLEASE CHECK WITH NURSING STAFF BEFORE ENTERING ROOM.

VISITORS TO WEAR FACIAL PROTECTION IN ROOM.
GOWN AND GLOVES IF ASSISTING WITH CARE.

PATIENTS UPON LEAVING ROOM



(FOR ESSENTIAL PURPOSES ONLY)
(PROCEDURE MASK, CLEAN GOWN CLOTHES AND HANDS)

Influenza A or B (confirmed or suspected) + Aerosol Generating Medical Procedure (AGMP)
= N95 Respirator + eye protection

SINGLE ROOM RECOMMENDED WITH DEDICATED EQUIPMENT

April 2018



COVID-19 Additional Precautions

Required PPE for **Contact & Droplet Precautions** include;

- Gown
- Gloves (sterile/non-sterile depending on procedure)
- Procedure mask
- Eye protection - Goggles, face shield, or visor

As per current recommendations **N95 use only for** Aerosol Generating Procedures such as Intubation, CPR, Sputum induction, BiPaP; It **does not include** collecting nasopharyngeal (NP) or nasal swabs

Nasal Swab Collection

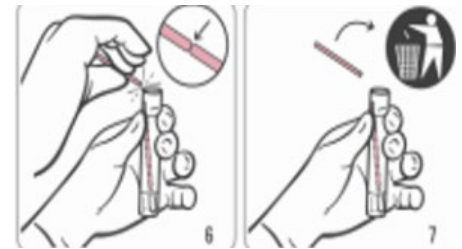
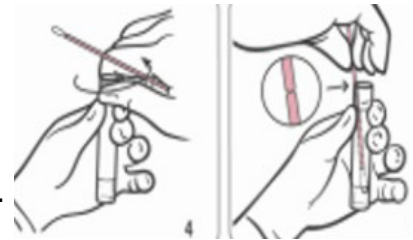
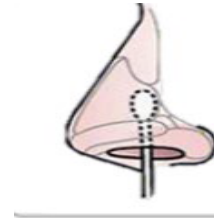
1. Assemble all supplies such as PPE (gloves, gown, facial protection), pen, appropriate collection kit (APTIMA Unisex collection kit) and Provincial Lab requisition
2. Check expiry date of the collection kit.
3. Check expiry date of PPE equipment
4. Perform hand hygiene by washing hands with soap and water or using alcohol hand rub.
5. Put on gloves, gown, mask and eye protection.



APTIMA Unisex Swab Collection Kit
Source: Alberta Precision Laboratory

Nasal Swab Collection

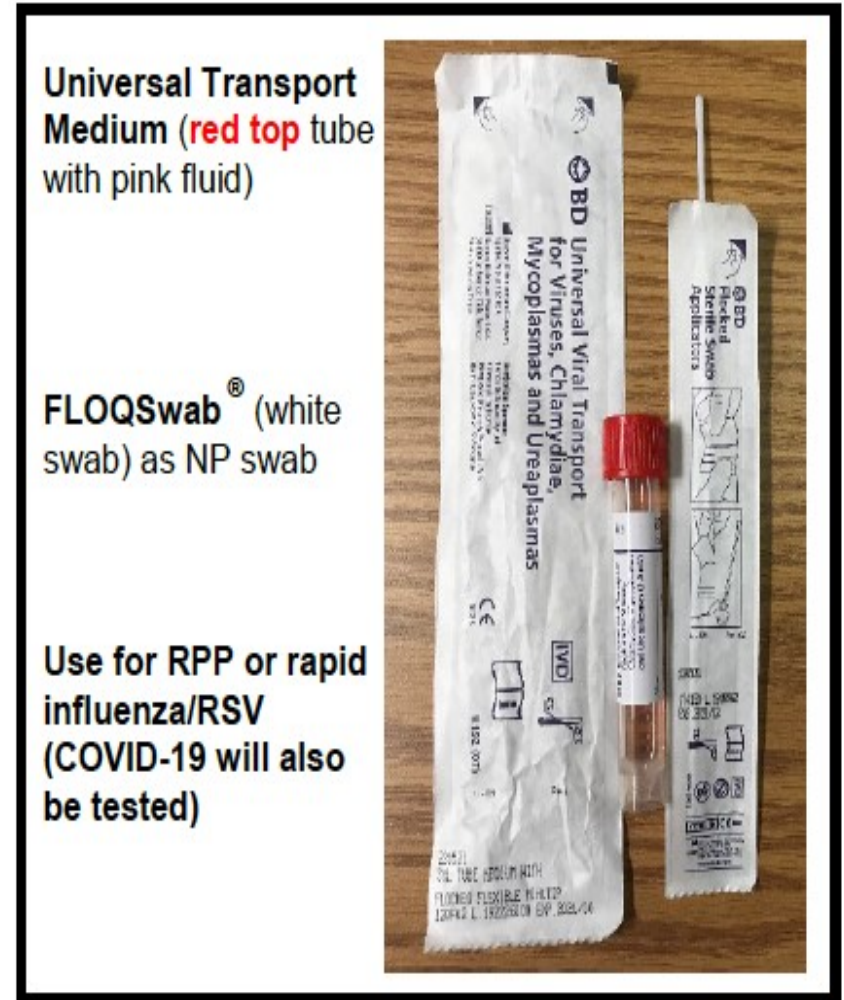
6. Ask the patient to tilt his/her head back.
7. Insert the Unisex (blue) swab approximately 3 cm (or until you encounter resistance).
8. Rotate the swab inside of the nostril for 3 seconds, covering all surfaces. Repeat the procedure in the other nostril with the same swab.
9. While holding the swab in your hand, unscrew the tube cap (foil top). Do not spill the tube contents. Immediately place the swab into the transport tube so that the line is in line with the top edge of the tube and carefully break the shaft. The swab will drop to the bottom of the vial. **DO NOT FORCE THE SWAB THROUGH OR DO NOT PUNCTURE THE FOIL CAP.**
10. Discard the top portion of the shaft. Tightly screw the cap onto the tube.
11. Place tube in biohazard bag. Place requisition in pouch outside of the bag.
12. Refrigerate tubes or store on ice if possible. If no refrigeration available, store at room temperature and ship to the lab within 24 hours.
13. Remove and discard gloves. Perform hand hygiene by washing hands with soap and water or using alcohol hand rub. Remove and discard face mask, and repeat hand hygiene.
14. Follow the labelling and transport instructions given in the collection kit insert.



Source: Alberta Precision Laboratories

Nasopharyngeal Swab Collection

1. Assemble all supplies such as PPE (gloves, gown, facial protection), pen, appropriate collection kit containing Provincial Lab requisition, nasopharyngeal FLOQswab and universal transport medium.
2. Check expiry date of transport medium.
3. Check expiry date of PPE equipment
4. Perform hand hygiene by washing hands with soap and water or using alcohol hand rub.
5. Put on gloves, gown, mask and eye protection.

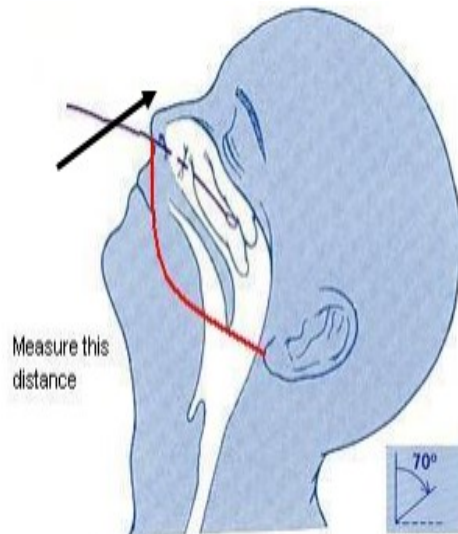


Nasopharyngeal Collection Kit

Source: Alberta Precision Laboratory

Nasopharyngeal Swab Collection

6. Have the patient sit in a chair or lie on a bed – elevate the head of the bed so that their head can be tilted back (see diagram).
7. Remove any mucous from the patient's nose, with a tissue or cotton tipped swab prior to collecting the NP swab
8. **How deep is the NP swab inserted into the nasopharynx?** Measure the distance from the corner of the nose to the front of the ear and **insert the shaft ONLY half this length**. In adults, this distance is usually about 4 cm, (finest thickness of this swab shaft). In children this distance is less.
8. Tilt the patient's head **back slightly** (about 70 degrees) to straighten the passage from the front of the nose to the nasopharynx to make insertion of the swab easier.
9. **Gently** insert the swab along the medial part of the septum, along the base of the nose, until it reaches the posterior nares – gentle rotation of the swab may be helpful. (If resistance is encountered on one side, try the other nostril, as the patient may have a deviated septum).
10. Rotate the swab several times to dislodge the columnar epithelial cells, and then remove the swab.



Note – insertion of the swab usually induces a cough.

Nasopharyngeal Swab Collection

11. Put the NP swab into the transport medium and break it at the score mark on the shaft so that it does not protrude above the rim of the container. Failure to do so will result in the transport medium leaking and the sample being discarded.
12. **Ensure that the lid of the container is screwed on tight.** Place the specimen in the big inner pocket of the plastic biohazard bag provided
13. Remove and discard gloves. Perform hand hygiene by washing hands with soap and water or using alcohol hand rub. Remove and discard face mask, and repeat hand hygiene.
14. Follow the labelling and transport instructions given in the collection kit insert

Specimen Collection Video

The following videos demonstrates collection of Nasopharyngeal Swab for different age groups

Child

<https://www.youtube.com/watch?v=T4HwytFFtQU&list=PLi1tOF1I5ZoXMeW4LQruoKHPW-qmbtwoW&index=2>

Adult

<https://www.youtube.com/watch?v=6VdOCuuz8gQ&list=PLi1tOF1I5ZoXMeW4LQruoKHPW-qmbtwoW&index=3>

Senior

<https://www.youtube.com/watch?v=e1IGpxqzJXI&list=PLi1tOF1I5ZoXMeW4LQruoKHPW-qmbtwoW&index=4>

(Source Alberta Health Services)

Reference

Alberta Health services, ProvLab. (2016). UTM/Flu Kit: for Detection of Respiratory Viruses.
<https://www.albertahealthservices.ca/assets/wf/plab/wf-provlab-utm-flu-kit-insert.pdf>

Alberta Health services, ProvLab. (2017). Collection of a Nasopharyngeal and Throat Swab for Detection of Respiratory Infection. <https://albertahealthservices.ca/assets/wf/plab/wf-provlab-collection-of-nasopharyngeal-and-throat-swab.pdf>

Alberta Precision Labs – Public Health Laboratory. (6 March 2020). Novel coronavirus causing COVID-19 laboratory update. <https://www.albertahealthservices.ca/assets/wf/lab/wf-lab-bulletin-novel-coronavirus-causing-covid-19-laboratory-update.pdf>

Alberta Precision Labs – Public Health Laboratory. (19 March 2020). Interim recommendations for COVID-19 sample collection. <https://www.albertahealthservices.ca/assets/wf/lab/wf-lab-bulletin-interim-recommendations-for-covid-19-sample-collection.pdf>

Alberta Health Services. (13 March 2020). COVID-19 Screening Criteria.
<https://www.albertahealthservices.ca/assets/info/ppih/if-ppih-ncov-case-def.pdf>

Alberta Health Services. Novel Corona Virus (Covid-19) Nasopharyngeal Swab collection Directive.
<https://extranet.ahsnet.ca/teams/policydocuments/1/clp-ahs-novel-coronavirus-nasopharyngeal-swab-hcs-253-01.pdf>

Ottawa Public Health. How to collect a Nasopharyngeal (NP) swab.
<https://www.ottawapublichealth.ca/en/professionals-and-partners/how-to-collect-a-nasopharyngeal--np--swab.aspx>

Public Health Agency Canada (February 2020). Coronavirus disease (COVID-19): For health professionals.
<https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection/health-professionals.html>