

Health care providers should contact Pennsylvania Department of Health (PA DOH) (1-877- PA-HEALTH) or local health department immediately to notify them of patients with fever and lower respiratory illness who traveled to Wuhan, China within 14 days of symptom onset or contact with a confirmed case of 2019 Novel Coronavirus (2019-nCoV). Local and state public health staff will determine if the patient meets the [criteria for a patient under investigation \(PUI\)](#) for 2019 n-CoV. Clinical specimens should be collected from PUIs for routine testing of respiratory pathogens at either clinical or public health labs. Testing at the PA DOH Bureau of Laboratories and/or Centers for Disease Control and Prevention (CDC) must be approved by PA DOH Bureau of Epidemiology. Specimens cannot be sent to CDC until a CDC nCoV ID number has been issued and the “Interim 2019 Novel Coronavirus (2019 n-CoV) PUI form” has been completed.

Specimen Type - Collection of three specimen types, lower respiratory, upper respiratory and serum, is recommended.

If possible, additional specimen types (e.g., stool, urine) should be collected and need be stored initially until decision is made by CDC whether additional specimens need be tested. Specimens should be collected as soon as possible once a PUI is identified regardless of symptom onset. Maintain proper infection control when collecting specimens.

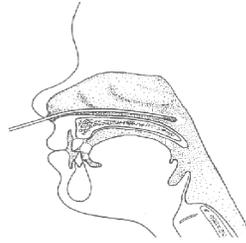
A. Lower respiratory tract – collect one

1. Bronchoalveolar lavage, tracheal aspirate - collect 2-3 mL into a sterile, leak-proof, screw-cap sputum collection cup or sterile dry container.
2. Sputum - have the patient rinse the mouth with water and then expectorate deep cough sputum directly into a sterile, leak-proof, screw-cap sputum collection cup or sterile dry container.

B. Upper respiratory tract - Nasopharyngeal swab (NP) AND oropharyngeal swab (OP)

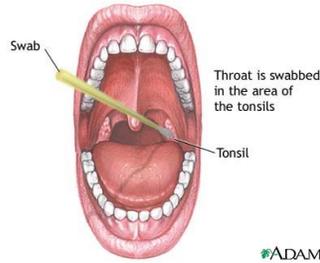
Use only synthetic fiber swabs with plastic shafts. Do not use calcium alginate swabs or swabs with wooden shafts, as they may contain substances that inactivate some viruses and inhibit PCR testing. Place swabs immediately into sterile tubes containing 2-3 ml of viral transport media. NP and OP specimens should be kept in separate vials.

1. Nasopharyngeal (NP) Swab - see diagram below
 - a. Pass the NP swab through the nares.
 - b. Resistance will be met, and this will confirm contact with the nasopharynx.
 - c. Rub the swab tip several times across the mucosal surface. This will loosen and collect cellular material.
 - d. Allow a time of contact of up to 30 seconds.
 - e. Withdraw the swab and place in the viral transport media (VTM or UTM). Make sure liquid medium covers the swab tip.
 - f. Break or cut the end of the swab and screw the vial lid on tightly.



2. Oropharyngeal (OP) - see diagram

- a. Swab the posterior pharynx, avoiding the tongue.
- b. Using plastic handled swab, vigorously swab both the tonsils and the posterior pharynx.
- c. Place swab into the transport media. Make sure liquid medium covers the swab tip.
- d. Break or cut the end of the swab.
- e. Screw the vial lid on tightly.



3. Nasopharyngeal wash/aspirate or nasal aspirate (optional)

Collect 2-3 mL into a sterile, leak-proof, screw-cap sputum collection cup or sterile dry container.

C. Serum

Minimum volume required:

Children and adults: Collect 1 tube (5-10 mL) of whole blood in a serum separator tube.

Infant: A minimum of 1 mL of whole blood is needed for testing pediatric patients. If possible, collect 1 mL in a serum separator tube.

Serum separator tubes should be stored upright for at least 30 minutes, and then centrifuged at 1000–1300 relative centrifugal force (RCF) for 10 minutes before removing the serum and placing it in a separate sterile tube, e.g. cryovial, for shipping.

Complete BOL Specimen Submission Form – document travel history and onset date

Packaging Instructions

1. Label the container with patient's name, DOB, source and the collection date.
2. This information must appear on **BOTH** the specimen and the specimen submission form or testing will **NOT** be performed.
3. Place the biohazard bag containing the specimen into the foam box.
4. Add the **FROZEN** cold pack and close the foam box.
5. Place foam box into the cardboard mailer.
6. Close the outer mailer and seal it with tape.

Shipping Instructions

1. Ship the specimen as soon as possible after collection (within 48 hours).
2. Refrigerate specimens if they will not be shipped immediately. If specimen will not arrive at the Bureau of Laboratories/State Public Health Laboratory within 24-48 hours of collection, freeze specimen and ship frozen the next business day.
3. Specimen **MUST** be kept cold until it reaches the laboratory.
4. Package the specimen appropriately
5. Address the package:

**PA Department of Health
Bureau of Laboratories
110 Pickering Way
Exton, PA 19341**

6. Call **Quick Courier** at **800-355-1004** to request pickup of a "**Flu Pickup Account #PA-BOLFL**" package for next day delivery to the **Exton Laboratory**.
7. A dispatcher will pick up the specimen from the public health center and deliver it to the State Laboratory the next business day.
8. Calls to Quick Courier must be made by **12 noon** for delivery the next business day.

Please Note: Do not ship Specimens out on Fridays, weekends, day before a holiday or holidays, unless approved by Lisa Dettinger or Maria Strohecker/Bureau of Laboratories 610-280-3464