These laboratory instructions provide guidance on how to collect nasopharyngeal swab specimens and how to successfully ensure safe transport to the laboratory. It is absolutely critical that specimens be collected properly, labeled properly, stored appropriately, and submitted with a complete laboratory test request/submission form.

**WHAT IS COLLECTED:** The preferred specimen is a nasopharyngeal swab (NP). However, OLS will also accept the following for Influenza testing: throat swabs, nasal aspirates, nasal washes, brochoalveolar lavages, bronchial aspirates, bronchial washes, endotracheal aspirates, endotracheal washes, tracheal aspirates, and lung tissues. OLS will only accept NP swabs for outbreak testing.

**TIMING OF COLLECTION:** Specimens for testing should only be collected from individuals who have been symptomatic for less than 72 hours.

**HOW TO COLLECT:** Once collected, the swab should be placed in viral transport media (VTM) as soon as possible. Make sure the lid is securely closed. It is recommended to use Parafilm or tape to seal the lid. VTM (sometimes called UTM) is a red/pink liquid containing small clear beads. The use of Stuart’s, Amies, saline, or other inappropriate transport media will result in rejection of the specimen.

**PERSONAL PROTECTIVE EQUIPMENT (PPE):** Use proper PPE when collecting NP swabs from an infected patient. Proper PPE includes surgical mask, disposable gloves, and/or droplet protection such as face mask or safety glasses. When collection is complete, dispose of all PPE and other contaminated materials in a trash receptacle. Wash hands thoroughly with soap and water or use an alcohol-based hand gel before and after the collection procedure.

**STEPS TO NP SWAB COLLECTION:**

1. Use a flexible aluminum or plastic shafted swab with a polyester, nylon, Dacron, or rayon tip. **Do not use cotton or calcium alginate swabs or swabs with wooden shafts.**
2. Insert the swab into the nostril and back into the nasopharynx and leave in place for 30-60 seconds.
3. Slowly withdraw the swab with a rotating motion.
4. Place the tip of the swab into the vial containing 2-3mL of VTM or UTM. If using an aluminum shaft swab, cut the shaft. If using a plastic shaft swab, break the shaft at the break point.
5. Label the transport tube with the patient’s first and last name (or unique identifier) and the date of collection.
SPECIMEN COLLECTION INSTRUCTIONS
INFLUENZA AND RESPIRATORY TESTING

COMPLETION OF TEST REQUEST FORM: The test request form must contain the patient name (and/or unique identifier), patient date of birth, date of specimen collection, source of specimen, and submitting facility name and address at a minimum. The specimen tube must have the patient name or unique identifier that matches the test request form. Place the completed form in the outside pouch of the biohazard bag so that it does not come into contact with specimens. **FAILURE TO COMPLETE THE REQUIRED INFORMATION ON THE TEST REQUEST FORM MAY RESULT IN THE REJECTION OF THE SAMPLE.**

*If specimens are being submitted as part of an outbreak, the Outbreak Number must be written in the designated area on the form. To obtain an Outbreak Number, contact the Division of Infectious Disease Epidemiology at 304-558-5358.*

**STORAGE:** After collection, place the vial containing the swab and media into a zippered or sealable biohazard labeled bag. Keep the specimen(s) refrigerated at 4°C (39.2°F) until shipping. If the specimen(s) cannot be shipped within 72 hours after collection, they should be kept frozen at -70°C (-158°F) or below in a manual defrost freezer.

**PACKAGING AND SHIPPING:** Specimens should be packaged in an insulated box and shipped overnight with ice packs. Dry ice is not necessary, but recommended in cases where the samples have been frozen. **DO NOT SHIP SPECIMENS IF THEY WILL ARRIVE AT OLS DURING WEEKENDS OR HOLIDAYS.** OLS does not have the means to accept any packages during weekends or holidays. The package must be shipped according to the current DOT, IATA, and ICAO regulations. See our website - www.wvdhhr.org/labservices - for complete packaging and shipping guidelines. An example of proper marking and labeling is shown below.

**NOTE:** Influenza collection kits supplied by OLS may include pre-paid return labels. Packages **must** be shipped back to OLS from the exact facility where the kits were originally sent.

![Example of Category B package without dry ice.](image_url)