INSTRUCTIONS FOR SUBMISSION OF SPECIMENS FOR VIRUS ISOLATION AND VIRAL PCR

Michigan Department of Community Health

Freeze coolant upon receipt of this Unit!

IMPORTANT: Specimens not properly labeled, test requisitions not completed or failing to match specimen labels will result in specimens not being tested.

NOTE: If this is part of an outbreak investigation, you must indicate the name of the outbreak under “Test Reason” on the test requisition as testing of this type must have prior approval from the Bureau of Epidemiology (517-335-8165).

1. Complete a test requisition for each specimen submitted indicating the virus suspected. Place requisition(s) in plastic bag provided to protect them from moisture. More than one properly packaged specimen may be submitted in each shipping unit.

2. Wash hands. Put on gloves; consider mask and eye protection. Collect the specimen(s) appropriate for the disease or agent suspected. Refer to Laboratory Services Guide – http://www.michigan.gov/mdchlab

   a. **Feces** – Recommended for Enterovirus recovery. Collect an olive-sized portion of formed feces or 10 mL of liquid stool. Place in sterile 50 mL tube provided.

   b. **CSF** – Recommended for Enterovirus recovery. Submit 3-5 mL of spinal fluid in a sterile, plastic, tightly capped tube (not provided). **Note**: A minimum of 0.5 mL is required for PCR analysis.

   c. **Upper Respiratory Tract Specimens** – Check outdate on viral transport. If outdated – do not use. Request replacement by calling 517-335-9867.

   - NP Swabs – Recommended for Respiratory virus recovery. See attached figure.
     1. Explain the procedure to the patient
     2. Use flexible plastic-shafted Dacron swab provided.
     3. Select an unobstructed nostril.
        a. Can the patient breathe out of both nostrils?
        b. Has the patient ever had an injury or surgery to the nose?
        c. Perform a visual inspection for evidence of a deviated septum.
     4. Provide the patient with tissues. Instruct them to blow their nose to remove mucus. A second tissue may be needed for watery eyes.
     5. Position the person’s head leaning gently back (about 70°) against a wall.
     6. Aseptically remove the sterile flexible swab from package.
     7. Hold swab lightly between the thumb and index finger thus allowing a quick release in the event the patient moves.
     8. Place the swab in the nostril and gently follow the septum beyond the external nares. If any resistance to insertion occurs, **STOP** immediately to prevent injury.
     9. In an adult, the swab should be inserted 4-6 cm or approximately 2/3 of the length of the swab.
    10. Rotate the swab gently in place for a few seconds to absorb cells.
    11. Withdraw the swab and insert into transport vial. Rotate swab in the transport medium. **Express swab** by pressing against the side of the vial. **Discard swab** properly

   - Throat Swabs – Recommended for Enterovirus recovery and Mumps virus detection by PCR.
     1. Explain the procedure to the patient
     2. Use the stiff, plastic-shafted swab provided.
     3. Moisten swab with saline and vigorously rub over tonsils and pharynx. Place swab in transport medium and rotate.
     4. **Express swab** by pressing against the side of the vial. **Discard swab** properly

   - NP Aspirates – Recommended for Respiratory virus recovery.
     1. Explain the procedure to the patient.
     2. Collect specimen using a sterile rubber bulb syringe and place in the transport media provided.

   - NP Washes – Recommended for Respiratory virus recovery.
     1. Explain the procedure to the patient.
     2. Collect with sterile saline and sterile rubber bulb syringe, and place in a sterile container. **Do not add to transport media**.

   - Urine – Recommended for Mumps virus recovery. Submit 10 mL of clean catch or catheter-collected urine in sterile 50 mL tube provided. **Note**: Mumps testing must be pre-approved by the Bureau of Epidemiology by calling 517-335-8165.

   - Buccal Swabs - Preferred specimen for Mumps PCR. Mumps specimens should be collected as close to symptom onset as possible, preferably within 1-3 days of onset of parotitis. The preferred viral specimen is a swab of the buccal mucosa near
the parotid (Stensen’s) duct area, collected as follows: massage the parotid gland area (area forward of the ear and slightly below) for 30 seconds, then use a Dacron swab to wipe the space between the inside of the cheek and the upper molar teeth. Place swab in a tube containing viral transport media. Rotate swab in the transport medium. Express swab by pressing against the side of the vial. Discard swab properly. Send specimens on cold pack via overnight courier to the MDCH Lansing laboratory. Note: Mumps testing must be pre-approved by the Bureau of Epidemiology by calling 517-335-8165.

**Autopsy or biopsy material** – Submit a large (1 – 2 cm$^2$) piece of tissue in sterile 50 mL specimen tube containing sterile saline; place smaller pieces of tissue in transport medium, one piece per vial, to prevent drying.

3. Tighten caps securely on all vials and tubes.
4. Label all specimens with the same name/unique identifier used on the test requisition. Record the name/unique identifier, as you will use it to link the specimen to the patient.
5. Remove personal protective equipment and wash hands.
6. Refrigerate all specimens – DO NOT FREEZE – until ready to ship by the most rapid means to the laboratory. Ship specimen(s) within 24 hours of collection. Do not collect the specimen if it cannot be shipped within 24 hours of collection.
7. When ready to ship, place properly labeled specimen vial, wrapped in absorbent provided, into aluminum screw-capped can and secure cap with tape. Place aluminum can with completed test requisition into screw-capped cardboard container and secure cap.
8. Complete the U.S. Express Mail Shipping Label and apply it along with the U.S. Express Mail Corporate Account Stamp and the Biological Substance label to corrugated shipping box containing specimen in the screw-capped can, pre-frozen coolant, test requisition(s), and Stryofoam container.
9. Call either the 800 number listed on the shipping label for pickup, your local post office, or take the box directly to the closest U.S. Post Office. If there are any questions, contact the Bureau of Laboratories at 517-335-8067.

**Figure - Diagram of NP Swab Collection.**

**NOTE:** The shipper is responsible for ensuring that their package is in compliance with the current shipping regulations.