

**New York State Department of Health
Virus Reference and Surveillance Laboratory**

Collection and Submission of Samples for Virus Detection

The diagnostic facilities of the Wadsworth Center are designed primarily to provide laboratory services for all persons in the state for whom such services are not otherwise available. Please use local laboratory services whenever available.

HISTORY AND SPECIMEN LABELING Fill in PATIENT HISTORY form as completely as possible. Do not ask for "virus studies". If the condition is obscure, indicate whether the infection is of respiratory tract, gastrointestinal tract, central nervous system, etc. Provide the date of onset of illness and collection date for the specimen. Each specimen should be labeled with patient name, physician name, and the date and time collected.

RESPIRATORY TRACT SPECIMENS Respiratory specimens should be collected as soon as possible in the course of illness. The likelihood of recovering most viruses diminishes markedly >72 hours after symptom onset. Three types of specimens may be collected. These include (1) nasopharyngeal wash/aspirates; (2) nasopharyngeal swabs; or (3) oropharyngeal swabs. Nasopharyngeal aspirates are the method of choice for respiratory viruses.

Collection of nasopharyngeal wash/aspirate: Have the patient sit with the head tilted backward. Instill 1.0 - 1.5 ml of nonbacteriostatic saline (pH 7.0) into one nostril. Flush a plastic catheter or tubing with 2-3 ml of saline. Insert the tubing into the nostril parallel to the palate. Aspirate nasopharyngeal secretions. Repeat this procedure with the other nostril. Collect specimens in labeled sterile vials. Ship sample immediately on cold packs.

Collection of nasopharyngeal and oropharyngeal swabs: Use only sterile dacron or rayon swabs with plastic handles. Do NOT use cotton or calcium alginate swabs or swabs with wooden sticks as they may contain substances that inactivate some viruses and inhibit PCR.

- Nasopharyngeal swabs: Insert swab into nostril parallel to the palate and leave in place for a few seconds to absorb secretions. Swab both nostrils.
- Oropharyngeal swabs: Swab both posterior pharynx and tonsillar areas, avoiding the tongue. Place swabs immediately into labeled sterile tubes containing viral transport medium. Break applicator sticks off near the tip to permit tightening of the cap. Ship sample immediately on cold packs.
- Broncheolar lavage, tracheal aspirate, pleural tap: If these specimens have been obtained, place in sterile, labeled vials with external caps and internal O-ring seals. If there are no internal O-ring seals, cap securely and seal with parafilm. Ship sample immediately on cold packs.

VESICLES AND OTHER SKIN LESIONS It is best to sample fresh, fluid-filled lesions as more viruses are recovered from these lesions than from older crusted vesicles. Use a 26- or 27-gauge needle and tuberculin syringe to aspirate liquid from the vesicle. The fluid should then be expressed into the labeled tube of viral transport medium, rinsing and flushing the needle and syringe with viral transport medium. The vesicle can then be unroofed and swabbed vigorously to obtain cells from the base of the lesion. Use only sterile dacron or rayon swabs with plastic handles. Do NOT use cotton or calcium alginate swabs or swabs with wooden sticks as they may contain substances that inactivate some viruses and inhibit PCR. The swab should be immediately placed into the labeled sterile tube of viral transport medium. Ship sample immediately on cold packs.

URINE Collect 5-10ml of clean voided urine in labeled sterile containers with external cap and an internal O-ring seal. If there is no internal O-ring seal, cap securely and seal with parafilm. Urine for virus isolation (e.g., viremia or viruria due to rubella, adenovirus) should be collected within three days of onset. Ship sample immediately on cold packs. Do not freeze.

CSF Collect spinal fluid for neuropathogenic viruses within seven days of onset. Collect in sterile, labeled container. Freeze immediately at -70°C and then ship on dry ice.

STOOL Collect four spoonfuls of feces using the enclosed spoon. After the material has been transferred, drop the spoon in the jar. Ship sample immediately on cold packs.

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TISSUE obtained by autopsy or biopsy may be submitted for virus isolation. The type of tissue to be collected depends on the disease. Tissue must be collected as soon as possible after onset of disease or death to be suitable. Collect in sterile, labeled container. Freeze immediately at -70°C and then ship on dry ice.

BLOOD AND SERUM Collect 7 to 10 ml of blood into a marble-topped tube or a plastic yellow-topped serum separator tube. Spin samples to separate serum. Dispense to a sterile, labeled tube for shipment at room temperature. Alternatively, collect 3 to 5 ml of blood into a labeled purple-topped tube. Gently mix blood with anticoagulant (not heparin) in tube to prevent clotting. Ship samples at room temperature. If necessary, the physician may telephone the laboratory to confer with a virologist as to the best types of specimens to be taken and the procedures to be followed. Telephone (518) 869-4559.

Shipping of Samples for Virus Isolation

It is essential that specimens be sent to the Viral Reference and Surveillance Laboratory at the Wadsworth Center as soon as possible after collection. All original paperwork must be complete and accompany each specimen.

- It is the shipper's responsibility to ensure that appropriate shipping materials are used. Please contact your carrier for shipping and packaging information. Patient specimens and virus isolates must be shipped as either Category A or Category B infectious substances consistent with IATA and DOT guidelines.
- For refrigeration, use commercially available frozen ice packs. Do not use wet ice. For frozen specimens, use dry ice.
- All specimens must be shipped "Priority Overnight" and received within 24 hours via chosen carrier.
- Specimens should ONLY be shipped Sunday - Thursday so that appropriate laboratory personnel can be present to accept and accession specimens Monday - Friday.
- Serum samples may be shipped at room temperature. Please contact your carrier for shipping and packaging information.
- Culture Isolates should be shipped frozen, on dry ice. Please contact your carrier for shipping and packaging information.

Address for courier shipping:

.....David Axelrod Institute
Wadsworth Center
NYS Department of Health
Virus Reference and Surveillance Laboratory
120 New Scotland Avenue
Albany, NY 12208

Packages sent through US mail:

David Axelrod Institute
Wadsworth Center
NYS Department of Health
Virus Reference and Surveillance Laboratory
PO Box 22002
Albany, NY 12201-2002

To order collection kits and history forms, contact:

Wadsworth Center, NYS DOH Order Desk
PO Box 509, Albany, NY 12201-0509 Telephone: (518) 474-4175

Please specify:

Order

Number

Fecal outfit		DOH-1795(L)
Swab outfit with viral transport media	DO	H-483
Miscellaneous outfit with empty tube for CSF, blood, urine etc.		DOH-727