

## New York State Department of Health

### Collection and Submission of Specimens for Viral Encephalitis Testing

The diagnostic facilities of the Wadsworth Center are designed primarily to provide laboratory services for persons in the state for whom such services are not otherwise available. Please use local or commercial laboratory services whenever available. Routine HSV and enterovirus molecular testing should be sent to commercial laboratories.

**HISTORY AND SPECIMEN LABELING** Fill in the Infectious Diseases Requisition (IDR) as completely as possible. Each specimen must be labeled with patient name, date of birth, and date collected. Unlabeled specimens will be rejected.

**CSF** For **hospitalized** patients with a reported current diagnosis of **viral encephalitis**, CSF will be tested by molecular detection methods for a panel of viruses that include adenovirus, enterovirus, HSV 1 and 2, VZV, CMV, EBV, and HHV6. From June through November, molecular testing will also include the following arboviruses: WNV, SLE, EEE, Cache Valley, and California serogroup viruses. Enzyme-linked immunoassay (ELISA) for WNV is performed year round on all specimens submitted with sufficient quantity. CSF submitted on patients no longer hospitalized or with a reported current diagnosis of **viral meningitis** will be tested by ELISA for WNV only. Collect at least 1.0ml of CSF within seven days of onset, in a sterile, labeled container and freeze immediately at -70°C. Ship frozen specimen overnight on a minimum of 5 lbs (2+ Kg) solid dry ice or more for multiple samples. **CSF must be received frozen!** For additional information regarding the viral encephalitis testing program, please visit our website at [www.wadsworth.org/divisions/infdis/enceph/index.htm](http://www.wadsworth.org/divisions/infdis/enceph/index.htm).

If less than 1.0ml of CSF is submitted, the quantity will not be sufficient to perform both ELISA and PCR testing.

1. CSF on patients with **viral meningitis** will be tested for WNV by ELISA (PCR will not be done since it is less sensitive for WNV.)
2. CSF on patients with viral encephalitis will be tested according to the physician's preference below.  
**Please consider the following in determining which test is most appropriate for your patient:**
  - ELISA is more sensitive than PCR for WNV testing and should be considered when there is a stronger suspicion of WNV than other viruses.
  - PCR is less sensitive for WNV, but tests for a wide range of viruses. PCR should be considered if viruses other than WNV are suspected.

IF THERE IS LESS THAN 1.0ML OF CSF, PLEASE INDICATE TEST PREFERENCE ON REQUISITION.

**SERUM** **Acute Sera: 5-10ml in a red-top tube.** Clotted blood should be centrifuged. The sera should be separated from the clot and red cells, and dispensed into another tube for shipping. The specimen should be refrigerated if shipped alone. If the serum is shipped with CSF, send both frozen on a minimum of 5lbs (2+ Kg) solid dry ice.  
**Convalescent Sera: 5-10ml in a red-top tube.** Clotted blood should be centrifuged. The sera should be separated from the clot and red cells, and dispensed into another tube for shipping. The specimen should be refrigerated and shipped on a commercially available frozen ice pack. If shipped with CSF, ship frozen on a minimum of 5 lbs (2+ Kg) solid dry ice.

**TISSUE** Fresh frozen tissue obtained by autopsy or biopsy may be submitted for encephalitis PCR. Tissue must be collected ASAP after onset of disease or death. **Fresh tissue is strongly preferred over fixed.** Collect in sterile, individually labeled containers. Freeze immediately at -70°C and then ship on a minimum of 5 lbs (2+ Kg) solid dry ice.

### Shipping of Specimens for Viral Encephalitis Testing

Send specimens to the Viral Encephalitis Laboratory at the Wadsworth Center as soon as possible after collection. The IDR and Viral Encephalitis/Meningitis Case Report form must be complete and accompany each specimen.

- **The shipper must ensure that patient specimens are shipped as Temperature Controlled Biological Substance Category B according to IATA/DOT regulations. Contact your carrier for shipping instructions.**
- For frozen CSF specimens, **use a MINIMUM of 5 lbs (2+ Kg) solid dry ice, and more for multiple samples.**
- All specimens must be shipped "Priority Overnight" and CSF received frozen within 24 hours via chosen carrier.
- Specimens should be shipped ONLY Sunday through Thursday so that appropriate laboratory personnel can be present to accept and accession specimens Monday through Friday.
- **If CSF specimens arrive thawed, all viral encephalitis tests will be cancelled!** The only exception is for local Albany hospitals; fresh specimen must be refrigerated on frozen ice packs and received via courier within 8 hours.

**Shipping address by courier:** Viral Encephalitis Laboratory, Wadsworth Center, NYSDOH, David Axelrod Institute, 120 New Scotland Avenue, Albany, NY 12208.

**Shipping address by US Postal Service:** Viral Encephalitis Laboratory, Wadsworth Center, NYSDOH, David Axelrod Institute, PO Box 22002, Albany, NY 12201-2002.