

### Testing of Human Specimens for Arbovirus Infection, 2019

Commercial tests to detect arbovirus antibodies are readily available at most commercial laboratories. **During 2012, GDPH recommends that diagnostic testing for human arbovirus infections be performed at commercial laboratories.** GPHL can perform testing for serologic evidence of infection with each of the arboviruses that circulate in Georgia. GPHL does not charge for WNV and arbovirus panel tests, but due to decreased funding for arboviral testing, **specimens should only be submitted to GPHL in situations of extreme need.**

Criteria for testing at GPHL were instituted in 2001 to conserve limited laboratory resources and were intended primarily to detect neurologic manifestations of arboviral infections. Specimens will not be tested by GPHL unless they meet the following criteria. Please call the Georgia Department of Public Health (404-657-2588) or the appropriate District Health Office before submitting specimens for arboviral testing to assure that the criteria are met for testing at GPHL. If needed, specimens positive for WNV or other arboviruses at commercial laboratories can be retested at GPHL to verify the results. **Please do not submit specimens unless testing criteria are met; ineligible specimens will not be tested.**

**Adults:** To qualify for testing at GPHL, persons must be 18 years or older and meet **at least one** of the following criteria:

- Meningitis, OR
- Encephalitis, OR
- Acute onset of profound muscle weakness or acute flaccid paralysis (including Guillian-Barre syndrome), OR
- Fever (greater than 100.4°F) and **at least 2** of the following:
  - Headache
  - Malaise
  - Arthralgia
  - Fatigue
  - Eye Pain

**Children:** To qualify for testing at GPHL, persons must be 17 years or younger and meet **at least one** of the following criteria:

- Fever (greater than 100.4°F) with ataxia or extrapyramidal signs, OR
- New onset seizures or increased seizure activity in children with pre-existing seizure disorders, OR
- Encephalitis, OR
- Acute onset of profound muscle weakness or acute flaccid paralysis (including Guillian-Barre syndrome)

Note: Because meningitis due to other causes is rather frequent among children during arbovirus transmission season, children with meningitis will not be tested unless they meet additional criteria described above, or after other bacterial and viral causes have been ruled out.





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We expect that some patients may not meet all of the above criteria, but may still be candidates for testing. If you have any questions regarding testing criteria, please call the Georgia Department of Public Health at 404-657-2588. Testing through GPHL will not be approved for persons who are asymptomatic or have only mild, flu-like symptoms.

When a physician or hospital requests testing at GPHL for cases meeting the above criteria, an **Arboviral Case Report Form** must be completed and faxed to the Georgia Notifiable Diseases Epidemiology Section at 404-656-4278 or faxed to the appropriate district health office. The hospital laboratory should complete a **GPHL Microbial Immunology Submission/Immunology Request Form** and send it to GPHL with the specimen. This form provides brief background and risk factor information on each case. **Testing will not be performed until these forms are received by the appropriate district epidemiologist or the arboviral epidemiologist at GDPH.**

Test results may take up to two weeks during the peak of arbovirus transmission season. Every attempt is made to expedite results so that public health actions may be taken to prevent further human arboviral infections. Because specific therapeutic treatments for arboviruses are not available, testing is most valuable as a public health surveillance tool.

When serum is submitted for arboviral testing at GPHL, separate IgM and IgG antibody assays are performed for the following viruses:

- West Nile virus
- Saint Louis Encephalitis virus
- LaCrosse Encephalitis virus
- Eastern Equine Encephalitis virus
- Western Equine Encephalitis virus

When cerebrospinal fluid is submitted, only a West Nile virus IgM assay can be performed.

Please fax copies of all paperwork to the Georgia Department of Public Health. The fax number is 404-656-4278. If you have any questions or need help with any steps in this process please call 404-657-2588.



**We Protect Lives.**