IDAHO DEPARTMENT OF HEALTH & WELFARE

C.L. "BUTCH" OTTER – GOVERNOR
RICHARD M. ARMSTRONG – DIRECTOR

ELKE SHAW-TULLOCH, MHS – ADMINISTRATOR
DIVISION OF PUBLIC HEALTH
450 West State Street, 4th Floor
P.O. Box 83720
Boise, Idaho 83720-0036
PHONE 208-334-6996
FAX 208-334-6581
EMAIL ShawE@dhw.idaho.gov

West Nile Virus Interpretation of Test Results

Caution: IgG assay cross-reactivity has been noted with some specimens containing antibody to cytomegalovirus (CMV) and bunyaviruses, e.g., LaCrosse virus.

Caution: IgM assay cross-reactivity has been noted with some West Nile IgM assays testing specimens of children containing antibody to enteroviruses.

SERUM

IgM antibody in serum is usually detectable by 8 days post infection, and IgG antibody by 3 weeks post infection.

IgM Result	IgG Result	Combined Interpretation (Both IgM & IgG Results)
POS	POS	**Presume the patient was recently infected with WNV.** The presence of IgM antibodies is presumptive evidence that the patient was recently infected with West Nile virus or another flavivirus. However, IgM anti-WNV has been shown to persist for ≥ 500 days.
	NEG	**Refer to results above for IgM anti-WNV reactive results**.
NEG	POS	**Presume the patient was previously infected with (or exposed to) WNV.** The presence of IgG antibodies without IgM antibodies is presumptive evidence that the patient was infected with (or exposed to) West Nile virus or another flavivirus at a previous time.
	NEG	**Presume the patient has not been infected with (or exposed to) WNV.** The absence of IgM and IgG antibodies is presumptive evidence that the patient has not been recently infected with (or exposed to) West Nile virus or another flavivirus.

Positive results are known to occur with persons vaccinated for flaviviruses (e.g., yellow fever, Japanese encephalitis and dengue), with persons infected with other flaviviruses, and with persons previously infected with WNV.

Equivocal: An equivocal test result suggests a questionable presence of WNV IgM/IgG antibody. Repeat testing using a different method, or the patient may be re-drawn two or more weeks later and re-tested with this assay.

CSF

IgM antibody is detectable in CSF in most (99%) patients by the onset of symptoms, but is relatively short-lived in CSF compared with serum.

Detection of IgM in CSF confirms recent infection with WNV. Infection cannot be definitively ruled out if IgM is not detected.

IgG antibody in CSF often does not reach detectable levels and is therefore not a sensitive indicator of infection.

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