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West Nile Virus

The following are important links and information about West Nile Virus. Please scroll down and check out all of the important information.

Fact Sheets

West Nile Virus Fact Sheet (CDC) – English
http://www.cdc.gov/ncidod/dvbid/westnile/resources/WNV_factsheet.pdf
West Nile Virus Brochure (CDC) – English
http://www.cdc.gov/ncidod/dvbid/westnile/brochure.htm
West Nile Virus Fact Sheet (CDC) – Spanish
http://www.cdc.gov/ncidod/dvbid/westnile/spanish/wnv_factsheet_spanish.htm
West Nile Virus Flyer (CDC) – Spanish
http://www.cdc.gov/ncidod/dvbid/westnile/resources/wnv_Spflyer.pdf

Reporting Requirements

Report within 3 days of diagnosis

Legal Information, Work Restrictions, Isolation

a. Each case of diagnosed west nile virus (WNV) infection must be reported to the Department or District within three (3) working days. A WNV infection will be defined as asymptomatic (determined through blood donation screening), fever, encephalitis, meningitis, meningoencephalitis, acute flaccid paralysis or other central or peripheral nervous system manifestation. (4-6-05)

b. Each report of a case of WNV infection must be investigated to confirm the diagnosis, review any travel history, review any blood donations, and identify the most likely source of infection including exposure to vectors, blood transfusion or organ receipt. (IDAPA 16.02.10.16.60.a,b)

Local Disease Incidence

During the summer of 2006, changes in electronic reporting caused encephalitis cases to be reported as West Nile Fever. See pages 7 and 8.

Laboratory Testing

Laboratory Criteria for Diagnosis

The terminology WNV-specific implies that SLE has been ruled out.

- Fourfold or greater change in WNV-specific serum antibody titer, *or*
- Isolation of WNV from or demonstration of specific West Nile viral antigen or genomic sequences in tissue, blood, cerebrospinal fluid (CSF), or other body fluid, *or*
- WNV-specific immunoglobulin M (IgM) antibodies demonstrated in CSF by antibody-capture enzyme immunoassay (EIA) (not applicable for WN-fever), *or*
- WNV-specific IgM antibodies demonstrated in serum by antibody-capture EIA and confirmed by demonstration of WNV-specific serum immunoglobulin G (IgG) antibodies in the same or a later specimen by another serologic assay (e.g., neutralization or hemagglutination inhibition).

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Idaho case definition:

The Idaho case definition was derived from the 2004 CSTE case definition for neuroinvasive and non-neuroinvasive arboviral diseases, available at http://www.cdc.gov/epo/dphsi/casedef/arboviral_current.htm

Clinical description

Non-neuroinvasive disease (includes West Nile fever and other non-neuroinvasive manifestations). Classification as non-neuroinvasive requires the absence of neuroinvasive disease and the absence of a more likely clinical explanation for the illness. Symptoms must include one or more of the following: fever, headache, myalgias, arthralgias, fatigue, skin rash on the trunk of the body, swollen lymph glands, and/or eye pain. Non-neuroinvasive syndromes may also include, on rare occasion, myocarditis, pancreatitis, or hepatitis.

Neuroinvasive disease In the absence of a more likely clinical explanation, neuroinvasive disease requires one or more of the following;

- Acutely altered mental status (*e.g.*, disorientation, obtundation, stupor, or coma)
- Other acute signs of central or peripheral neurologic dysfunction (*e.g.*, paresis or paralysis, nerve palsies, sensory deficits, abnormal reflexes, generalized convulsions, or abnormal movements),
- Pleocytosis (increased white blood cell concentration in cerebrospinal fluid [CSF]) associated with illness clinically compatible with meningitis (*e.g.*, headache or stiff neck).

Laboratory criteria for diagnosis

- Virus-specific IgM antibodies demonstrated in serum by screening antibody-capture EIA and confirmed by demonstration of virus-specific serum antibodies in the same or later specimen by another serologic assay (*e.g.*, MAC EIA, Microsphere immunoassay [MIA] or plaque reduction neutralization test (PRNT), *or*
- Virus-specific immunoglobulin M (IgM) antibodies demonstrated in a single CSF sample by antibody-capture enzyme immunoassay (EIA), *or*
- Four-fold or greater change in virus-specific serum antibody titer in paired sera, *or*
- Isolation of virus from or demonstration of specific viral antigen or genomic sequences in tissue, blood, CSF, or other body fluid.

Case classification*

Confirmed Case (neuroinvasive or non-neuroinvasive):
- A clinically compatible case, and
- Laboratory results meet at least one laboratory criterion for diagnosis.

Probable Case (neuroinvasive or non-neuroinvasive):
- A clinically compatible case, and

- Virus-specific serum IgM antibodies detected by antibody-capture EIA in a single sample, but with no available results of a confirmatory test in the same or a later specimen.

Suspect Case (neuroinvasive or non-neuroinvasive):
(not counted in final case counts)

- A clinically compatible case, and
- Laboratory results as follows
  - Presence of elevated virus–specific (IgG) serum antibodies demonstrated in a single sample in the absence of virus–specific IgM antibodies, *or*
  - No laboratory tests performed.

or

- Demonstration of specific viral antigen or genomic sequences on blood or organ donation without further supporting clinical evidence or unable to contact.

* See Figure 1 to clarify case classification based on Idaho Bureau of Laboratories antibody test results, Figure 2 to clarify case classification based on viral antigen or genomic sequences from blood or organ donation or CSF.

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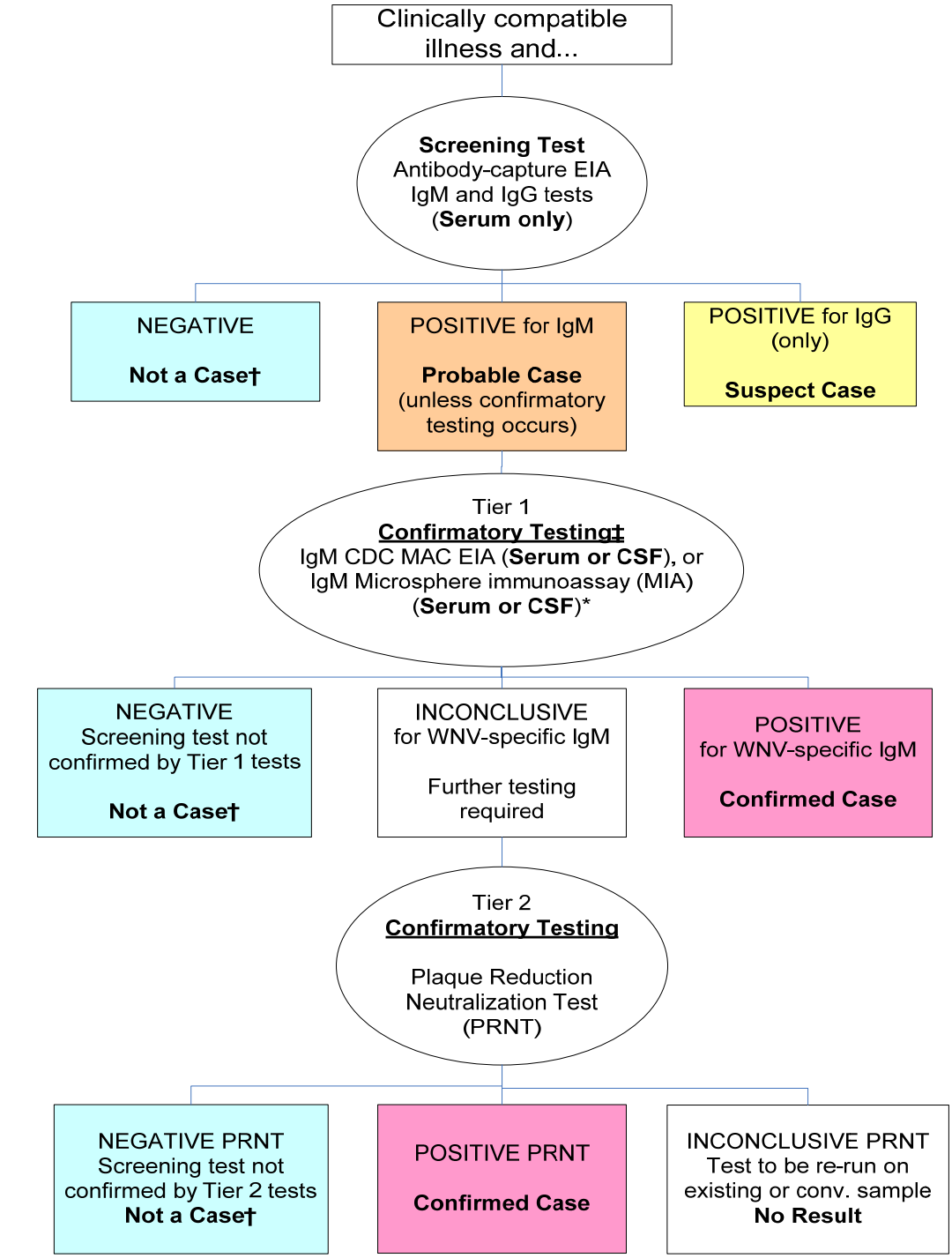

Figure 1. 2007 West Nile virus case classification based on IBL antibody testing.

† If samples are collected early in the infection, it is possible that levels of antibodies are undetectable at the time of collection. If clinical presentation is compelling, suggest testing a convalescent sample.

* IgM tests may be run in parallel in 2007 at IBL

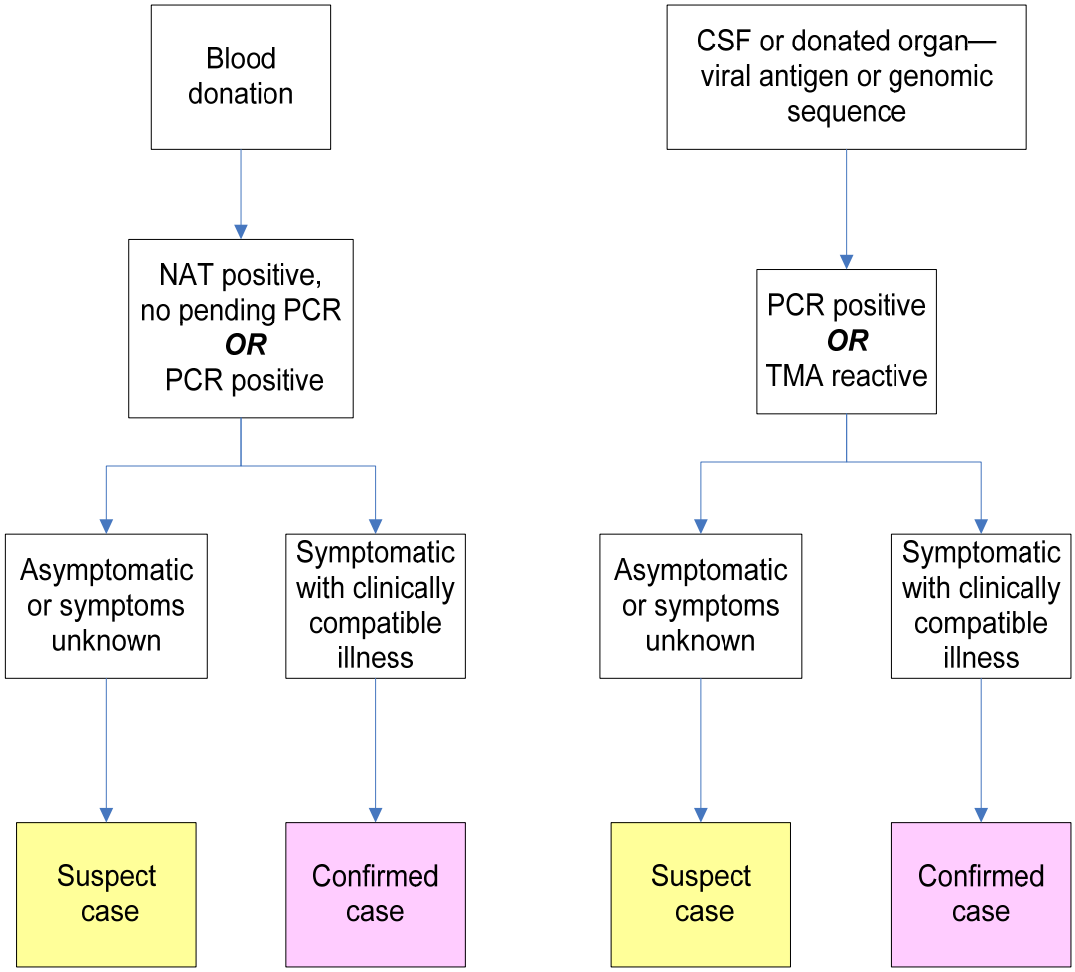

Figure 2. 2007 West Nile virus case classification flowchart based on viral antigen or genomic sequence (*e.g.*, NAT, TMA, PCR) testing.

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Treatment and Prophylaxis Information

CDC Links:

Clinician information page:
http://www.cdc.gov/ncidod/dvbid/westnile/clinicians/

CDC guidelines:
http://www.cdc.gov/ncidod/dvbid/westnile/resources/wnv-guidelines-aug-2003.pdf

National maps and data:
http://www.cdc.gov/ncidod/dvbid/westnile/surv&control.htm

Idaho Links:

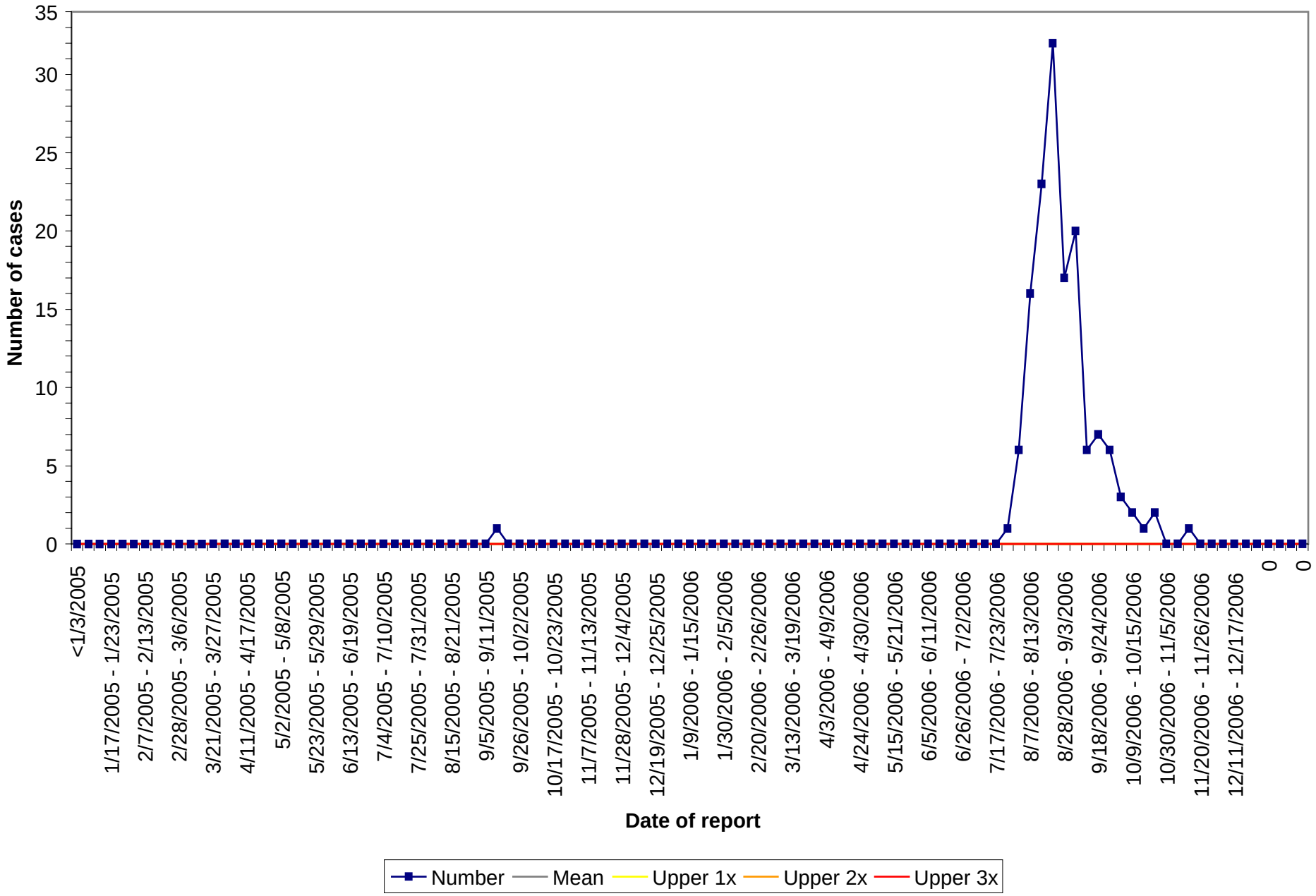
General information:
http://www.healthandwelfare.idaho.gov/DesktopModules/ArticlesSortable/ArticlesSrtView.aspx?tabID=0&ItemID=980&mid=10808

Idaho total human, animal and bird cases:
http://www.healthandwelfare.idaho.gov/DesktopModules/ArticlesSortable/ArticlesSrtView.aspx?tabID=0&ItemID=1868&mid=10941&wversion=Staging

Immunization Information

CDC Links: n/a

West Nile Fever Reported in South Central District Health Jurisdiction 2005-2006



Encephalitis, West Nile Virus - Reported in South Central District Health Jurisdiction 2005 - 2006