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## Hantavirus Sin Nombre Pulmonary Syndrome (HPS) Reported

One laboratory-confirmed case of HPS was reported in Washoe County in May 2004. This is the first case of HPS reported in Washoe County since 1998. A total of three cases have been reported in Washoe County since HPS was first identified in 1993. One case was fatal.

The most recent case was a 66-year-old white female who recovered. The Washoe County District Health Department's (WCDHD's) Vectorborne Disease Control Program conducted an environmental assessment of the case's home and trapped several mice. Hantavirus test results on the mice are pending.

*Hantavirus Sin Nombre* has been well-documented in deer mice populations in Washoe County and surrounding areas. Health care providers are reminded to consider HPS in patients who present

with symptoms that meet the case definition: a febrile illness (i.e., temperature greater than 101° F {greater than 38.3° C}) characterized by bilateral diffuse interstitial edema that may radiographically resemble ARDS, with respiratory compromise requiring supplemental oxygen, developing within 72 hours of hospitalization, and occurring in a previously healthy person.

Please visit the following website for more information on HPS:

<http://www.cdc.gov/ncidod/diseases/hanta/hps/index.htm>



## West Nile Virus: Human Case Surveillance in Washoe County

The District Health Department has established several surveillance systems again this year in an attempt to identify West Nile Virus (WNV) in Washoe County. WNV was first detected in the Western Hemisphere in 1999 in New York City. Since then, the virus has spread across the United States. As of June 9, 2004, WNV has been detected in avian, animal, or mosquito testing in 19 states. Four human cases have been reported in 2004; one each in Arizona, California, New Mexico and Wyoming. No WNV has been detected in Nevada.

This issue of *Epi News* will focus on human case surveillance. For information on surveillance of dead birds, sentinel chicken flocks, and mosquitoes, please contact the Vectorborne Disease Control Program at 775-785-4599.

### Human Case Surveillance

- ◆ The clinical spectrum of WNV illness is broad. One in five infected persons develops a febrile illness, similar to dengue fever. The **West Nile fever syndrome** can be variable and often includes headache and fever ( $T > 38^{\circ}\text{C}$ ). Other symptoms include rash, swollen lymph nodes,

eye pain, nausea or vomiting. After initial symptoms, the patient may experience several days of fatigue and lethargy.

- ◆ Only 1 in 150 infected persons develop serious clinical illness. Severe illness includes **encephalitis, aseptic meningitis, or acute flaccid paralysis.**
- ◆ Health care providers are urged to consider WNV when evaluating persons who present with any clinical symptoms of WNV infection.
- ◆ Specimens from suspected cases of WNV infection meeting clinical case criteria can be tested at the Nevada State Public Health Laboratory (NSPHL).
- ◆ Health care providers are encouraged to follow the instructions on pages 2-3 of this issue when testing for WNV.
- ◆ For more information on human case surveillance and testing, please contact the Epi Center at (775) 328-2447.



**Please share this document with all physicians & staff in your facility/office.**

# **DIAGNOSTIC TESTING GUIDELINES FOR WEST NILE VIRUS**

WNV testing is recommended on individuals with the following:

- A. **Encephalitis**
- B. **Aseptic meningitis (individuals ≥ 18 years of age)**
- C. **Acute flaccid paralysis/atypical Guillain-Barré syndrome/transverse myelitis**

D. **Febrile illness\*:**

- Illness compatible with West Nile fever
- Must be seen by a health care provider

*The West Nile fever syndrome can be variable and often includes headache and fever (T≥38°C). Other symptoms include rash, swollen lymph nodes, eye pain, nausea or vomiting. After initial symptoms, the patient may experience several days of fatigue and lethargy.*

E. **Aseptic meningitis (individuals < 18 years of age)\*:**

- In conjunction with workup for enteroviruses (e.g. CSF, throat or stool isolation)

*\* Identification of human cases is important early in the West Nile virus season to assess the burden of human illness and will be important to target mosquito control and public education activities to reduce exposure risk. Depending on the volume of tests requested and laboratory capacity, the Nevada State Public Health Laboratory (NSPHL) and Washoe County District Health Department (WCDHD) may discontinue testing of individuals that fall into category (D) and (E) once West Nile virus is well established in the area.*

## **Instructions for Sending Specimens**

1. Required

- ❑ **Acute Serum** - ≥ 2 cc serum collected ≤ 7 days after onset
- ❑ **Cerebral Spinal Fluid** – 1-2cc CSF **if lumbar puncture is performed**

2. If West Nile is highly suspected and acute serum is negative

- ❑ **2<sup>nd</sup> Serum** - ≥ 2 cc serum collected 3-5 days after the acute serum

- ❑ Each specimen should be labeled with **date of collection**, **specimen type**, and **patient name**
- ❑ Specimens should be sent on **cold pack**
- ❑ A completed **2004 West Nile Case History Form** must accompany the specimens or be faxed to the NSPHL at (775) 688-1460
- ❑ Specimens can only be accepted by NSPHL Monday through Friday between the hours of 8 AM and 5 PM
- ❑ Send to Nevada State Public Health Laboratory  
1660 North Virginia Street  
Reno, NV 89503  
**Phone: (775) 688-1335 Fax: (775) 688-1460**  
Medical Director: L.D. Brown, MD MPH

**Questions? Call Washoe County District Health Department at (775) 328-2447.**

# 2004 West Nile Case History Form

This case history form is required for testing (specimens will not be tested without this form)!

Patients appropriate for testing through Nevada State Public Health Laboratory (NSPHL) must be seen by a health care provider and have at least one of the following: A) encephalitis; B) individuals  $\geq 18$  years of age with aseptic meningitis; C) acute flaccid paralysis/atypical Guillain-Barré syndrome/transverse myelitis; D) febrile illness compatible with West Nile fever or E) individuals  $< 18$  years of age with aseptic meningitis in conjunction with workup for enteroviruses (e.g. CSF, throat or stool isolation).

## Patient Information:

Last name \_\_\_\_\_ First name \_\_\_\_\_ DOB \_\_\_\_/\_\_\_\_/\_\_\_\_ Medical Record # \_\_\_\_\_

Street Address: \_\_\_\_\_ City \_\_\_\_\_ Zip Code \_\_\_\_\_ Occupation \_\_\_\_\_

## Physician Information: Mandatory

Name: \_\_\_\_\_ Facility: \_\_\_\_\_

Pager: \_\_\_\_\_ Fax: \_\_\_\_\_ Email: \_\_\_\_\_

**Race:**  White  Black  Native American  
 Asian/Pacific Islander  Other  Unknown

**Date of 1st symptom(s):** \_\_\_\_/\_\_\_\_/\_\_\_\_

Hospitalized or  ER/Outpatient

**Date of admit:** \_\_\_\_/\_\_\_\_/\_\_\_\_

**Do the following apply anytime during current illness:**

In ICU  No  Yes

Fever  $\geq 38^\circ$   No  Yes

Headache  No  Yes

Rash  No  Yes

Stiff neck  No  Yes

Muscle Weakness  No  Yes

Altered Consciousness  No  Yes

Encephalitis  No  Yes

Aseptic Meningitis  No  Yes

Flaccid Paralysis  No  Yes  Asymmetrical

### CSF results

### CBC results

Date: \_\_\_\_\_ Date: \_\_\_\_\_

RBC: \_\_\_\_\_ WBC: \_\_\_\_\_

WBC: \_\_\_\_\_ %Diff: \_\_\_\_\_

%Diff: \_\_\_\_\_ HCT: \_\_\_\_\_

Protein: \_\_\_\_\_ Plt: \_\_\_\_\_

Glucose \_\_\_\_\_

### Other Information (MRI/CT,LFTs etc.)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Ethnicity:**  Hispanic  Non-Hispanic

**Sex:**  Female  Male

### Exposures within 4 wks of onset (specify details):

Mosquito bites/exposure:  No  Yes

Outdoor activity (camping, hiking, etc)  No  Yes

Received Blood Transfusion:  No  Yes

**Date:** \_\_\_\_\_

### Travel within 4 wks of onset

(specify location, dates):

Within Nevada (out of Washoe County)  No  Yes

Within the United States?  No  Yes

Outside of the United States?  No  Yes

Ever traveled outside the US?  No  Yes

### Other pertinent information:

Immunocompromised patient:  No  Yes

Yellow fever vaccination:  No  Yes

**Date:** \_\_\_\_\_

Military service:  No  Yes

Current Pregnancy  No  Yes

**Week of gestation:** \_\_\_\_\_

Donated Blood:  No  Yes

**Date:** \_\_\_\_\_

**Significant Past History (medical, social, family) and other exposures:** \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

For questions regarding specimens contact L.D. Brown, MD at (775) 688-1335.

Fax this form to (775) 688-1460 or send with specimens to:

Nevada State Public Health Laboratory • 1660 North Virginia Street • Reno, NV 89503 • (775) 688-1335

Revised 06/2004