

California Department of Public Health – Viral and Rickettsial Disease Laboratory

**Hantavirus Pulmonary Syndrome (HPS)
Information and Specimen Submittal Instructions**

To:

Phone: ()

FAX: ()

Included in this fax are the Centers for Disease Control and Prevention (CDC) HPS case definition, history form, VRDL submittal form and specimen collection and shipping instructions.

I. Specimen Submittal Instructions

1. Fill out the HPS case history form as completely as possible. Fax one copy to David Cottam at (510) 307-8578 and send a copy with the blood specimen.
2. Collect two tubes of whole blood (one 5ml tube in EDTA [purple top]; one 10 ml whole clotted blood [red top]). Send samples on a "cold pack" to the VRDL laboratory at the address shown below using an overnight delivery service. **It is very important to use an overnight delivery service because the EDTA samples will begin to degrade within three days.**
3. Since the incidence of HPS is rare in California, we strongly recommend that you also submit a respiratory specimen (nasopharyngeal swabs or washes, tracheal aspirates, bronchoalveolar lavage and/or pleural fluid) for viral isolation and/or respiratory PCR assays to test for other agents that may be causing your patient's illness.

California Department of Public Health
 850 Marina Bay Parkway
 Richmond, CA 94804
 ATTN: Specimen Receiving
 (510) 307-8585
 Fax (510) 307-8578

In addition, request your laboratory to save all specimens (including hematology differential slides) from the patient until HPS serology has been completed. If the patient is deceased, call the laboratory for shipping instructions for **paraffin embedded lung and kidney**; and/or **fresh frozen lung and kidney** (these latter tissues should be held frozen at -70°C).

- II. If the patient does not meet the CDC case definition or you would like a consultation, call Dr. Janice Louie at the Viral and Rickettsial Disease Laboratory at (510) 307-8567 or Dr. Curtis Fritz, Vector-Borne Disease Section, at (916) 552-9730. If Dr. Louie or Dr. Fritz is not available, local health departments may contact the Duty Officer at (510) 620-3434.
- III. Clinical consultations for patient management are available from the staff at the University of New Mexico Medical School. Call 1-888-UNMPALS and request a HPS consultation.
- IV. In cases where clinical presentation is not consistent with VRDL HPS test results, or VRDL HPS results are equivocal, specimens may be forwarded for further testing to either the Centers for Disease Control and Prevention or a reference laboratory at the University of New Mexico.

Date: ____/____/____

Time: _____

Number of pages (including this cover sheet):

4

From: David Cottam, Public Health Microbiologist Supervisor (Virology)
 Phone: (510) 307-8585 FAX: (510) 307-8578

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Screening Criteria for Hantavirus Pulmonary Syndrome In Persons with Unexplained Respiratory Illness ***

Potential case-patients must have one of the following:

- a febrile illness (temperature \geq 101 F [\geq 38.3 C] occurring in a previously health person characterized by unexplained adult respiratory distress syndrome (ARDS);
- bilateral interstitial pulmonary infiltrates developing within one (1) week of hospitalization with respiratory compromise requiring supplemental oxygen;
- an unexplained respiratory illness resulting in death in conjunction with an autopsy examination demonstrating noncardiogenic pulmonary edema without an identifiable specific cause of death.

Potential case-patients are to be excluded if they have any of the following:

- a predisposing underlying medical condition (e.g. severe underlying pulmonary disease, solid tumors or hematologic malignancies, congenital or acquired immunodeficiency disorders, medical conditions [such as rheumatoid arthritis or organ transplant recipients] requiring immunosuppressive drug therapy [e.g. steroids, cytotoxic chemotherapy]).
- An acute illness that provides a likely explanation for the respiratory illness (e.g. recent major trauma, burn, surgery, recent seizures or history of aspiration, bacterial sepsis, another respiratory disorder such as respiratory syncytial virus in young children, influenza or legionella pneumonia).

Confirmed case-patients must have the following:

- at least one specimen (serum and/or tissue) available for laboratory testing for evidence of hantavirus infection.

AND

- in a patient with compatible clinical illness, either serology (presence of hantavirus-specific immunoglobulin M (IgM) or rising titers of immunoglobulin G (IgG), polymerase chain reaction (PCR) for hantavirus RNA or immunohistochemistry for hantavirus antigen is positive.

*** MMWR October 28, 1993 pp 816-820

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Patient's last name, first name		Please provide patient demographic details on the attached Hantavirus case history form.		Route to: <input type="checkbox"/> SERO <input type="checkbox"/> ISOL <input type="checkbox"/> FA <input type="checkbox"/> RAB <input type="checkbox"/> EM
Disease suspected <u>or</u> test requested: Hantavirus		This section for Virus Laboratory use only. Date received by VRDL and State Accession Number		
1 st	Specimen type and/or specimen source	Date Collected	1 st	<input type="checkbox"/> BE <input type="checkbox"/> LC <input type="checkbox"/> _____
2 nd	Specimen type and/or specimen source	Date Collected	2 nd	<input type="checkbox"/> _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____
3 rd	Specimen type and/or specimen source	Date Collected	3 rd	
		Viral and Rickettsial Disease Laboratory California Department of Public Health 850 Marina Bay Parkway Richmond, CA 94804 Phone (510) 307-8575 Fax (510) 307-8599		<input type="checkbox"/> E IgM <input type="checkbox"/> E PCR <input type="checkbox"/> H PCR <input type="checkbox"/> C PCR <input type="checkbox"/> _____ code:

Type or print submitter's complete mailing address above

Revised Lab 300 9/17/07

Please clinical findings and pertinent laboratory data on the attached Hantavirus Case History Form

Note: Laboratory values for Thrombocytopenia (platelets < 150,000 mm), Elevated hematocrit (Hct) and Elevated creatinine have been found to be especially useful in diagnosis of hantavirus. Please be sure to include these values.

Submitting Physician: _____ Phone# (_____) _____

Submitting Facility: _____ Fax# (_____) _____

Hantavirus Pulmonary Syndrome Case Report Form

Patient Id.(assigned by State Lab)

Please return with Specimen Submittal Form to:

Viral and Rickettsial Disease Laboratory
 ATTN: Specimen Receiving
 850 Marina Bay Parkway
 Richmond, CA 94804

Phone (510) 307-8585 Fax (510) 307-8599

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--FIPS-- --YR-- -----CA # -----

Patient's Last Name, First Name		Middle Name:	Patient's Mailing Address
Date of Birth: ____/____/____	Age:	Sex: M F	Occupation:
County Health Jurisdiction:		Race/Ethnicity: [] White [] Black [] Asian/Pacific Islander [] American Indian/Alaska Native [] Hispanic [] Non-Hispanic [] Unk	

Date of Onset and Hospitalization History

Onset Date:	Was patient hospitalized for this illness? [] Yes [] No [] Unk
Name of Hospital:	
Location of Hospital:	
Dates in Hospital:	____/____/____ to ____/____/____
MR#	

Clinical Signs, Symptoms and Laboratory Values

Did the patient have any of the following? (Circle)			Additional Information:	
Fever > 101F or > 38.3 C:	Yes	No	Unk	Highest fever:
Thrombocytopenia (platelets < 150,000 mm):	Yes	No	Unk	Lowest platelet count:
Elevated hematocrit (Hct):	Yes	No	Unk	Highest Hct:
Elevated creatinine:	Yes	No	Unk	Highest creatinine:
CXR with unexplained bilateral interstitial infiltrates or Suggestive of ARDS?	Yes	No	Unk	Date Performed:
Oxygen saturation < 90% at any time?	Yes	No	Unk	
Was patient intubated?	Yes	No	Unk	Date Performed:
Has patient received ribavirin?	Yes	No	Unk	
WBC:	Total Neutrophils: %	Banded neutrophils: %	Lymphocytes: %	
History of any relevant underlying medical conditions (i.e. COPD, malignancy, immunosuppression, diabetes)?				
Other possible explanations for acute illness (i.e. sepsis, burns, trauma)?				
History of rodent exposure in 6 weeks prior to illness? [] Yes [] No [] Unk				
Date of Exposure: ____/____/____ Type of Rodent: _____				
Place of Exposure: _____				
Outcome of Illness? [] Alive [] Dead (if deceased, date of death) ____/____/____ [] Unk				
If deceased, was an autopsy performed? [] Yes [] No				
Evidence of non-cardiogenic pulmonary edema? [] Yes [] No				
Available Samples: Serum/blood [] Yes (date collected) ____/____/____ [] No				
Fresh frozen or paraffin tissue blocks [] Yes [] No				
Has a specimen been tested for hantavirus infection at another lab? [] Yes [] No				
If yes then Name of lab and result:				
Comments:				

