State of California—Health and Human Services Agency

California Department of Public Health
Center for Infectious Diseases
Division of Communicable Disease Control
Infectious Diseases Branch
Surveillance and Statistics Section
MS 7306, P.O. Box 997377
Sacramento, CA 95899-7377

Local ID Number ____________________________

(*Please use the same ID Number on the preliminary and final reports to allow linkage to the same case.)*

Report Status (check one)
☐Preliminary ☐Final

HANTAVIRUS INFECTIONS
CASE REPORT

PATIENT INFORMATION

Last Name	*First Name*	*Middle Name*	*Suffix*
Social Security Number (9 digits)	*DOB (mm/dd/yyyy)*	*Age*	☐ *Years* ☐ *Months* ☐ *Days*
Address Number & Street - Residence	*Apartment/Unit Number*		
City/Town	*State*	*Zip Code*	
Census Tract	*County of Residence*	*Country of Residence*	
Country of Birth	*If not U.S. Born - Date of Arrival in U.S. (mm/dd/yyyy)*		
Home Telephone	*Cellular Phone/Pager*	*Work/School Telephone*	
E-mail Address	*Other Electronic Contact Information*		
Work/School Location	*Work/School Contact*		
Gender ☐Male ☐Female ☐Other: ______________________________			
Pregnant? ☐Yes ☐No ☐Unk	*If Yes, Est. Delivery Date (mm/dd/yyyy)*		
Medical Record Number	*Patient's Parent/Guardian Name*		
Occupation Setting (see list on page 7)	*Other Describe/Specify*		
Occupation (see list on page 7)	*Other Describe/Specify*		

Primary Language
☐English
☐Spanish
☐Other:____________________

Ethnicity (check one)
☐Hispanic/Latino
☐Non-Hispanic/Non-Latino
☐Unk

*Race**
(check all that apply, race descriptions on page 7)
☐African-American/Black
☐American Indian or Alaska Native
☐Asian *(check all that apply)*
- ☐Asian Indian ☐Japanese
- ☐Cambodian ☐Korean
- ☐Chinese ☐Laotian
- ☐Filipino ☐Thai
- ☐Hmong ☐Vietnamese
- ☐Other:____________________

☐Pacific Islander *(check all that apply)*
- ☐Native Hawaiian ☐Samoan
- ☐Guamanian
- ☐Other:____________________

☐White
☐Other:____________________
☐Unk

*Comment: self-identity or self-reporting
The response to this item should be based on the patient's self-identity or self-reporting. Therefore, patients should be offered the option of selecting more than one racial designation.

CLINICAL INFORMATION

Physician Name - Last Name	*First Name*	*Telephone Number*

First three letters of patient's last name: | | | |

SIGNS AND SYMPTOMS

Symptomatic? ☐Yes ☐No ☐Unk	*Onset Date (mm/dd/yyyy)*	*Date First Sought Medical Care (mm/dd/yyyy)*

Signs and Symptoms	Yes	No	Unk	If Yes, Specify as Noted	
Fever				*Onset date (mm/dd/yyyy)*	*Highest temperature (specify °F/°C)*
Sweats / chills / rigors				*Onset date (mm/dd/yyyy)*	
Weakness / lethargy / malaise				*Onset date (mm/dd/yyyy)*	
Shortness of breath				*Onset date (mm/dd/yyyy)*	
Chest pain				*Onset date (mm/dd/yyyy)*	
Cough				*Onset date (mm/dd/yyyy)*	
Respiratory distress (ARDS)				*Onset date (mm/dd/yyyy)*	
Fatigue				*Onset date (mm/dd/yyyy)*	
Headache				*Onset date (mm/dd/yyyy)*	
Confusion / delirium				*Onset date (mm/dd/yyyy)*	
Muscle ache				*Onset date (mm/dd/yyyy)*	
Nausea, vomiting, and / or diarrhea				*Onset date (mm/dd/yyyy)*	
Abdominal pain				*Onset date (mm/dd/yyyy)*	
Dizziness				*Onset date (mm/dd/yyyy)*	
Other symptom (specify)				*Onset date (mm/dd/yyyy)*	

HOSPITALIZATION

Did patient visit emergency room for illness? ☐Yes ☐No ☐Unk	*Was patient hospitalized?* ☐Yes ☐No ☐Unk	*If Yes, how many total hospital nights?*
Was patient placed in respiratory isolation? ☐Yes ☐No ☐Unk	*If there were any ER or hospital stays related to this illness, specify details below.*	

HOSPITALIZATION - DETAILS

Hospital Name 1	*Street Address*			*Admission Date (mm/dd/yyyy)*	
	City			*Discharge / Transfer Date (mm/dd/yyyy)*	
	State	*Zip Code*	*Telephone Number*	*Medical Record Number*	*Discharge Diagnosis*
Hospital Name 2	*Street Address*			*Admission Date (mm/dd/yyyy)*	
	City			*Discharge / Transfer Date (mm/dd/yyyy)*	
	State	*Zip Code*	*Telephone Number*	*Medical Record Number*	*Discharge Diagnosis*

First three letters of patient's last name: | | | |

TREATMENT / MANAGEMENT	
Received treatment? ☐Yes ☐No ☐Unk	*If Yes, specify the treatments below.*

Treatment / Management	Yes	No	Unk	If Yes, Specify as Noted	
Supplementary oxygen				*Date started (mm/dd/yyyy)*	*Date ended (mm/dd/yyyy)*
Intubated				*Date started (mm/dd/yyyy)*	*Date ended (mm/dd/yyyy)*
Respirator				*Date started (mm/dd/yyyy)*	*Date ended (mm/dd/yyyy)*
ECMO				*Date started (mm/dd/yyyy)*	*Date ended (mm/dd/yyyy)*
Hemodynamic support (vasopressors)				*Date started (mm/dd/yyyy)*	*Date ended (mm/dd/yyyy)*
Other treatment / management or complications				*If Yes, specify treatment below*	

TREATMENT / MANAGEMENT - OTHER / COMPLICATIONS		
Treatment / Management or Complication	*Date Started (mm/dd/yyyy)*	*Date Ended (mm/dd/yyyy)*

OUTCOME		
Outcome? ☐Survived ☐Died ☐Unk	*If Survived,* *Survived as of* ________________________________*(mm/dd/yyyy)*	*Date of Death (mm/dd/yyyy)*

LABORATORY INFORMATION

LABORATORY RESULTS SUMMARY

Specimen Type 1	*Collection Date (mm/dd/yyyy)*	*Type of Test*	*Antigen* ☐Sin Nombre virus ☐Puumala virus ☐Hantavirus (unspecified) ☐Unknown antigen ☐Other antigen (specify):________________________

Results	*Interpretation* ☐Positive ☐Negative ☐Equivocal	*Laboratory Name*	*Telephone Number*

Specimen Type 2	*Collection Date (mm/dd/yyyy)*	*Type of Test*	*Antigen* ☐Sin Nombre virus ☐Puumala virus ☐Hantavirus (unspecified) ☐Unknown antigen ☐Other antigen (specify):________________________

Results	*Interpretation* ☐Positive ☐Negative ☐Equivocal	*Laboratory Name*	*Telephone Number*

ADDITIONAL LABORATORY RESULTS

DID THE PATIENT HAVE ANY OF THE FOLLOWING?

Laboratory Test / Procedure	Yes	No	Unk	If Yes, Specify as Noted	
Thrombocytopenia (platelets ≤ 150,000 mm^3)				*Lowest platelet count*	
Elevated hematocrit (Hct)				*Highest Hct*	
Elevated creatinine				*Highest creatinine*	
WBC				*Total neutrophils (%)*	*Lymphocytes (%)*
Total neutrophilis (%)					
Banded neutrophils (%)					

(continued on page 4)

First three letters of patient's last name: | | |

ADDITIONAL LABORATORY RESULTS (continued)					
Laboratory Test / Procedure	Yes	No	Unk	If Yes, Specify as Noted	
Lymphoctyes (%)					
Thoracic radiographs				*Chief findings*	*Date (mm/dd/yyyy)*
Oxygen saturation < 90% at any time					
Was an autopsy performed?				*Attach a copy of report.*	

EPIDEMIOLOGIC INFORMATION

INCUBATION PERIOD: 30 DAYS PRIOR TO ILLNESS ONSET

EXPOSURES / RISK FACTORS

DID THE PATIENT EXPERIENCE ANY OF THE FOLLOWING EVENTS DURING THE INCUBATION PERIOD?

Event	Yes	No	Unk	If Yes, Specify as Noted	
Entered confined, poorly ventilated space				*Location(s)*	*Date (mm/dd/yyyy)*
Cleaned confined, poorly ventilated space				*Location(s)*	*Date (mm/dd/yyyy)*
Observe rodents, rodent nest / droppings				*Location(s)*	*Date (mm/dd/yyyy)*
Handle rodents, rodent nest / droppings				*Location(s)*	*Date (mm/dd/yyyy)*

TRAVEL HISTORY (incubation period 30 days prior to illness onset)

*Did patient travel **outside of county of residence** during the incubation period?* ☐Yes ☐No ☐Unk	*Has the patient traveled outside the U.S. during the incubation period?* ☐Yes ☐No ☐Unk

If Yes for either of these questions, specify all locations and dates below.

TRAVEL HISTORY - DETAILS

Location (city, county, state, country)	Date Travel Started (mm/dd/yyyy)	Date Travel Ended (mm/dd/yyyy)

CONTACTS / OTHER ILL PERSONS

Any contacts with similar illness? ☐Yes ☐No ☐Unk	*If Yes, specify details below.*

ILL CONTACTS - DETAILS

Name 1	*Age*	*Gender*	*Telephone Number*	*Type of Contact / Relationship*	
	Street Address			*Date of Contact (mm/dd/yyyy)*	*Illness Onset Date (mm/dd/yyyy)*
	City	*State*	*Zip Code*	*Date First Reported to Public Health (mm/dd/yyyy)*	

(continued on page 5)

First three letters of patient's last name: | | | |

CONTACTS / OTHER ILL PERSONS (continued)

ILL CONTACTS - DETAILS

Name 2	Age	Gender	Telephone Number	Type of Contact / Relationship	
	Street Address			Date of Contact (mm/dd/yyyy)	Illness Onset Date (mm/dd/yyyy)
	City	State	Zip Code	Date First Reported to Public Health (mm/dd/yyyy)	

NOTES / REMARKS

REPORTING AGENCY

Investigator Name	Local Health Jurisdiction	Telephone Number	Date (mm/dd/yyyy)

First Reported By
☐Clinician ☐Laboratory ☐Other (specify):______________________

EPIDEMIOLOGICAL LINKAGE

Epi-linked to known case? ☐Yes ☐No ☐Unk	Contact Name / Case Number

DISEASE CASE CLASSIFICATION

Case Classification (see case definition on page 6)
☐Confirmed

OUTBREAK

Part of known outbreak? ☐Yes ☐No ☐Unk	If Yes, extent of outbreak: ☐One CA jurisdiction ☐Multiple CA jurisdictions ☐Multistate ☐International ☐Unk ☐Other (specify):____________

Mode of Transmission
☐Point source ☐Person-to-person ☐Unk ☐Other:______________________

STATE USE ONLY

Case Classification
☐Confirmed ☐Not a case ☐Need additional information

CASE DEFINITION

HANTAVIRUS INFECTIONS (2010)

CLINICAL DESCRIPTION

Hantavirus pulmonary syndrome (HPS), commonly referred to as hantavirus disease, is a febrile illness characterized by bilateral interstitial pulmonary infiltrates and respiratory compromise usually requiring supplemental oxygen and clinically resembling acute respiratory disease syndrome (ARDS). The typical prodrome consists of fever, chills, myalgia, headache, and gastrointestinal symptoms. Typical clinical laboratory findings include hemoconcentration, left shift in the white blood cell count, neutrophilic leukocytosis, thrombocytopenia, and circulating immunoblasts.

CLINICAL CASE DEFINITION

An illness characterized by one or more of the following clinical features:

- A febrile illness (i.e., temperature greater than 101.0° F [greater than 38.3° C]) corroborated by bilateral diffuse interstitial edema or a clinical diagnosis of acute respiratory distress syndrome (ARDS) or radiographic evidence of noncardiogenic pulmonary edema, or unexplained respiratory illness resulting in death, and occurring in a previously healthy person
- An unexplained respiratory illness resulting in death, with an autopsy examination demonstrating noncardiogenic pulmonary edema without an identifiable cause

LABORATORY CRITERIA FOR DIAGNOSIS

- Detection of hantavirus-specific immunoglobulin M or rising titers of hantavirus-specific immunoglobulin G, or
- Detection of hantavirus-specific ribonucleic acid sequence by polymerase chain reaction in clinical specimens, or
- Detection of hantavirus antigen by immunohistochemistry

CASE CLASSIFICATION

- **Confirmed**: a clinically compatible case that is laboratory confirmed

COMMENT

Laboratory testing should be performed or confirmed at a reference laboratory. Because the clinical illness is nonspecific and ARDS is common, a screening case definition can be used to determine which patients to test. In general, a predisposing medical condition (e.g., chronic pulmonary disease, malignancy, trauma, burn, and surgery) is a more likely cause of ARDS than HPS, and patients who have these underlying conditions and ARDS need not be tested for hantavirus.

RACE DESCRIPTIONS

Race	Description
American Indian or Alaska Native	Patient has origins in **any** of the original peoples of North and South America (including Central America).
Asian	Patient has origins in **any** of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent (e.g., including Bangladesh, Cambodia, China, India, Indonesia, Japan, Korea, Malaysia, Nepal, Pakistan, the Philippine Islands, Thailand, and Vietnam).
Black or African American	Patient has origins in **any** of the black racial groups of Africa.
Native Hawaiian or Other Pacific Islander	Patient has origins in **any** of the original peoples of Hawaii, Guam, American Samoa, or other Pacific Islands.
White	Patient has origins in **any** of the original peoples of Europe, the Middle East, or North Africa.

OCCUPATION SETTING

- Childcare/Preschool
- Correctional Facility
- Drug Treatment Center
- Food Service
- Health Care - Acute Care Facility
- Health Care - Long Term Care Facility
- Health Care - Other
- Homeless Shelter
- Laboratory
- Military Facility
- Other Residential Facility
- Place of Worship
- School
- Other

OCCUPATION

- Adult film actor/actress
- Agriculture - farmworker or laborer (crop, nursery, or greenhouse)
- Agriculture - field worker
- Agriculture - migratory/seasonal worker
- Agriculture - other/unknown
- Animal - animal control worker
- Animal - farm worker or laborer (farm or ranch animals)
- Animal - veterinarian or other animal health practitioner
- Animal - other/unknown
- Clerical, office, or sales worker
- Correctional facility - employee
- Correctional facility - inmate
- Craftsman, foreman, or operative
- Daycare or child care attendee
- Daycare or child care worker
- Dentist or other dental health worker
- Drug dealer
- Fire fighting or prevention worker
- Flight attendant
- Food service - cook or food preparation worker
- Food service - host or hostess
- Food service - server
- Food service - other/unknown
- Homemaker
- Laboratory technologist or technician
- Laborer - private household or unskilled worker
- Manager, official, or proprietor
- Manicurist or pedicurist
- Medical - emergency medical technician or paramedic
- Medical - health care worker
- Medical - medical assistant
- Medical - pharmacist
- Medical - physician assistant or nurse practitioner
- Medical - physician or surgeon
- Medical - nurse
- Medical - other/unknown
- Military
- Police officer
- Professional, technical, or related profession
- Retired
- Sex worker
- Stay at home parent/guardian
- Student - preschool or kindergarten
- Student - elementary or middle school
- Student - high school
- Student - college or university
- Student - other/unknown
- Teacher/employee - preschool or kindergarten
- Teacher/employee - elementary or middle school
- Teacher/employee - high school
- Teacher/instructor/employee - college or university
- Teacher/instructor/employee - other/unknown
- Unemployed - seeking employment
- Unemployed - not seeking employment
- Unemployed - other/unknown
- Volunteer
- Other
- Refused
- Unknown