

**North Carolina Department of Health and Human Services
Division of Public Health • Epidemiology Section
Communicable Disease Branch**



ATTENTION HEALTH CARE PROVIDERS:

Please report relevant clinical findings about this disease event to the local health department.

**HANTAVIRUS INFECTION
Confidential Communicable Disease Report—Part 2
NC DISEASE CODE: 67**

**ATTENTION Local Health Department Staff: There is no Part 2 Wizard for this disease.
Enter all information from this form into the NC EDSS question packages.**

If sending this form to the Health Care Provider, remember to attach a cover letter from your agency indicating the part(s) of the form the provider should complete.

| | | | | | | | |
|---------------------|-------|--------|--------|--------------|-------|-------------------------------|-----|
| Patient's Last Name | First | Middle | Suffix | Maiden/Other | Alias | Birthdate (mm/dd/yyyy) / / | SSN |
|---------------------|-------|--------|--------|--------------|-------|-------------------------------|-----|

NC EDSS LAB RESULTS Verify if lab results for this event are in NC EDSS. If not present, enter results.

| Specimen Date | Specimen # | Specimen Source | Type of Test | Test Result(s) | Description (comments) | Result Date | Lab Name—City/State |
|---------------|------------|-----------------|--------------|----------------|------------------------|-------------|---------------------|
| / / | | | | | | / / | |
| / / | | | | | | / / | |
| / / | | | | | | / / | |

CLINICAL FINDINGS

Is/was patient symptomatic for this disease? Y N U

If yes, symptom onset date (mm/dd/yyyy): / /

Fever Y N U

Yes, subjective No
 Yes, measured Unknown

Highest measured temperature _____

Fever onset date (mm/dd/yyyy): / /

Muscle aches / pains (myalgias) Y N U

Cough Y N U

Shortness of breath/difficulty breathing/ respiratory distress Y N U

Acute Respiratory Distress Syndrome (ARDS) Y N U

Pulmonary edema Y N U

Respiratory compromise developing within 72 hours of hospitalization Y N U

Autopsy compatible with non-cardiogenic pulmonary edema Y N U

Did the patient have a chest x-ray? Y N U

If yes, describe (check all that apply):
 Normal
 Infiltrate
 Diffuse infiltrates/findings suggestive of ARDS

Hypotension Y N U

Abdominal pain or cramps Y N U

Gastrointestinal symptoms Y N U

Thrombocytopenia Y N U

Platelet count: _____
 Platelets < 150,000

Elevated hematocrit Y N U

Atypical lymphocytes and immunoblasts on peripheral blood smear Y N U

PREDISPOSING CONDITIONS

Any immunosuppressive conditions? Y N U

Specify _____

TREATMENT

Did the patient receive an antiviral for this illness? Y N U

Specify antiviral name: _____

HOSPITALIZATION INFORMATION

Was patient hospitalized for this illness >24 hours? Y N U

Hospital name: _____

City, State: _____

Hospital contact name: _____

Telephone: (____) ____ - _____

Admit date (mm/dd/yyyy): / /

Discharge date (mm/dd/yyyy): / /

ISOLATION/QUARANTINE/CONTROL MEASURES

Restrictions to movement or freedom of action? Y N

If yes, specify: _____

Did local health director or designee implement additional control measures? Y N

If yes, specify: _____

Were written isolation orders issued? Y N

If yes, where was the patient isolated? _____

Date isolation started (mm/dd/yyyy): / /

Date isolation ended (mm/dd/yyyy): / /

Was the patient compliant with isolation? Y N

Notes: _____

| | | | | | | |
|----------------------|--------|------|--------|--------------|-------|-------------------------------|
| Patient's First Name | Middle | Last | Suffix | Maiden/Other | Alias | Birthdate (mm/dd/yyyy) / / |
| | | | | | | SSN |

CLINICAL OUTCOMES

Discharge/Final diagnosis: _____

Survived? Y N U
 Died? Y N U
 Died from this illness? Y N U

Date of death (mm/dd/yyyy): ____/____/____

Autopsy performed? Y N U
 Patient autopsied in NC? Y N U
 County of autopsy: _____
 Autopsied outside NC, specify where: _____

Source of death information (select all that apply):
 Death certificate
 Autopsy report final conclusions
 Hospital/physician discharge summary
 Other

TRAVEL & IMMIGRATION

The patient is:
 Resident of NC
 Resident of another state or US territory
 None of the above

Did patient travel during the 45 days prior to onset of symptoms? Y N U

Travel dates:
 From: ____/____/____ until: ____/____/____
 To city: _____
 To country: _____

Does patient know anyone else with similar symptom(s) who had the same or similar travel history? Y N U

Name: _____

Additional travel/residency information: _____

OTHER EXPOSURE INFORMATION

Does the patient know anyone else with similar symptoms? Y N U
 If yes, specify: _____

Has the patient ever served in the U.S. military? Y N U
 If yes, specify and give details: _____

HEALTH CARE FACILITY AND BLOOD & BODY FLUID EXPOSURE RISKS

During the 45 days prior to onset of symptoms, did the patient work in a laboratory? Y N U
 If yes, specify and give details: _____

ANIMAL EXPOSURE

During the 45 days prior to onset of symptoms, did the patient have exposure to rodents (includes rodent tissues, rodent products, or rodent excreta)? Y N U
 If yes, specify and give details: _____

Household pets (rodents)? Y N U

Did patient own, work at, or visit a pet store, animal shelter, and/or animal breeder/wholesaler/distributor? Y N U
 If yes, specify and give details: _____

Did patient handle any rodents? Y N U
 Species: _____
 Did it/they appear sick? Y N U

Did patient work with animal importation? Y N U
 If yes, specify and give details: _____

Did patient work at, live on, or visit a farm, ranch, or dairy? Y N U
 If yes, specify and give details: _____

Was patient exposed to animals associated with agriculture or aviculture (domestic/semi-domestic animals)? Y N U
 If yes, specify and give details: _____

Did patient have exposure to rodent excreta (urine or feces)? Y N U
 If yes, specify and give details: _____

Did patient work in a veterinary practice or animal laboratory, animal research setting, biomedical laboratory, or an animal diagnostic laboratory? Y N U
 If yes, specify and give details: _____

Did patient necropsy rodents? Y N U
 If yes, specify and give details: _____

OUTDOOR EXPOSURE

During the 45 days prior to onset of symptoms, did the patient participate in any outdoor activities? Y N U
 If yes, specify: _____

Was patient exposed to wild rodents? Y N U
 Select animal exposure(s)
 Rats
 Mice
 Other _____

Did patient handle the rodent? Y N U
 Animal was:
 Alive Dead Unknown
 Was rodent sick? Y N U
 Exposed on (date) (mm/dd/yyyy): ____/____/____

CASE INTERVIEWS/INVESTIGATIONS

Was the patient interviewed? Y N U
 Date of interview (mm/dd/yyyy): ____/____/____

Were interviews conducted with others? Y N U
 Who was interviewed? _____

Were health care providers consulted? Y N U
 Who was consulted? _____

Medical records reviewed (including telephone review with provider/office staff)? Y N U
 Specify reason if medical records were not reviewed: _____

Notes on medical record verification: _____

GEOGRAPHICAL SITE OF EXPOSURE

In what geographic location was the patient MOST LIKELY exposed?
 Specify location:
 In NC
 City _____
 County _____
 Outside NC, but within US
 City _____
 State _____
 County _____
 Outside US
 City _____
 Country _____
 Unknown

Is the patient part of an outbreak of this disease? Y N

Notes: _____

Hantavirus Pulmonary Syndrome (Hantavirus Disease) (HPS)

2010 Case Definition

CSTE Position Statement Number: 09-ID-17

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.