



National Notifiable Diseases Surveillance System (NNDSS)

Hantavirus Infection, Non-Hantavirus Pulmonary Syndrome

2015 Case Definition

NOTE: A surveillance case definition is a set of uniform criteria used to define a disease for public health surveillance. Surveillance case definitions enable public health officials to classify and count cases consistently across reporting jurisdictions. Surveillance case definitions are not intended to be used by healthcare providers for making a clinical diagnosis or determining how to meet an individual patient's health needs.

CSTE Position Statement(s)

14-ID-08

Background

Hantaviruses are pathogens carried by, and transmitted to humans, from rodents. Humans can contract hantavirus infection when they come into contact with infected rodents or their urine and droppings.

Patients with hantavirus infection typically present in a nonspecific way with a relatively short febrile prodrome lasting 3-5 days. In addition to fever and myalgias, early symptoms include headache, chills, dizziness, non-productive cough, nausea, vomiting, and other gastrointestinal symptoms. Malaise, diarrhea, and lightheadedness are reported by approximately half of all patients, with less frequent reports of arthralgias, back pain, and abdominal pain. Progression to cardio-pulmonary symptoms occurs in most patients, consistent with Hantavirus pulmonary syndrome (HPS).

A positive serological test result on an assay using a hantavirus antigen appropriate to the geographic region, evidence of viral antigen in tissue by immunohistochemistry, or the presence of viral RNA in blood or tissue, with compatible history, is considered diagnostic for hantavirus infection.

Clinical Description

Non-HPS Hantavirus infection is a febrile illness with non-specific viral symptoms including fever, chills, myalgia, headache, and gastrointestinal symptoms, but no cardio-pulmonary symptoms. Typical clinical laboratory findings include hemoconcentration, left shift in the white blood cell count, neutrophilic leukocytosis, thrombocytopenia, and circulating immunoblasts. Patients that develop cardio-pulmonary symptoms should be classified as having HPS.

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 in clinical specimens, or
- Detection of hantavirus antigen by immunohistochemistry in lung biopsy or autopsy tissues

Case Classification

Confirmed

A clinically compatible case of Non-HPS Hantavirus Infection with laboratory evidence.

Comments

Hantavirus infection, non-Hantavirus pulmonary syndrome has been added to the list of National Notifiable Infectious Conditions per CSTE Position Statement 14-ID-08. Office of Management and Budget (OMB) Paperwork Reduction Act (PRA) approval of the NNDSS Revision, 0920-0728, was received on January 21, 2016.

Laboratory testing should be performed or confirmed at a reference laboratory.

Last Reviewed: April 16, 2021