

Hantavirus Pulmonary Syndrome

Agent: Hantavirus family

Mode of Transmission: Several different types of hantaviruses that can cause hantavirus pulmonary syndrome (HPS) have been identified in the United States and each is associated with a different rodent species. Rodents infected with hantavirus do not become ill, but they can transmit the virus to humans when their urine, feces, or saliva are aerosolized and inhaled. While uncommon, other ways in which people may be exposed to the virus are rodent bites and direct contact between contaminated materials and a person's nose or mouth. Person-to-person transmission does not occur.

Signs/Symptoms: Early symptoms include fever and muscle pain, and may also include gastrointestinal complaints, headaches and dizziness. These symptoms may be accompanied by or followed by an abrupt onset of respiratory distress and decreased blood pressure. Respiratory failure and shock follow quickly.

Prevention: Rodents should be excluded from houses and other buildings. Protective measures include disinfecting rodent-contaminated areas with a spray disinfectant solution prior to cleaning. Contaminated areas should be cleaned with a wet mop and not be vacuumed or swept so as to decrease the likelihood of creating an aerosol containing the virus. While routine use of respirators by farmers and homeowners in rural areas is not recommended, respirator use is recommended when cleaning up very heavy rodent infestations or cleaning homes associated with known cases of HPS. Professional pest control companies may be best suited for the cleaning that would be needed in these situations.

Other Important Information: Although most common in the southwestern part of the U.S., hantavirus infections can occur anywhere. In the United States, the Sin Nombre virus is responsible for the majority of cases of HPS. The host of the Sin Nombre virus is the deer mouse (*Peromyscus maniculatus*), which is present throughout the western and central United States.

No cases of hantavirus pulmonary syndrome were reported in Virginia during 2014. The only HPS case reported in Virginia occurred in 1993. In 2004, a resident of southwest Virginia died from HPS following an exposure that occurred in West Virginia. For surveillance purposes, that case was attributed to West Virginia.