

Hantavirus

Cause of Illness

Hantavirus pulmonary syndrome is a respiratory illness caused by infection with a group of viruses called hantaviruses.

Hantavirus infections occur in several states in the U. S. as well as in many other areas of North and South America. Sin Nombre virus is the most common of the hantaviruses in the United States. It is usually responsible for infections in the western states, including Colorado, and is carried by the deer mouse. In 1993, a cluster of illnesses occurred in the Four Corners area of the southwestern United States. This was the first incident where Sin Nombre virus was identified.

Symptoms

Early (3-7 days)

- Fever
- Chills
- Headache
- Muscle pain in shoulders, lower back, and thighs
- Nausea
- Vomiting
- Diarrhea
- Dizziness

Late (4-10 days)

- Cough
- Shortness of breath
- Difficulty breathing

Symptoms of hantavirus usually occur in two phases. During the first 3 to 7 days of illness, symptoms typically include fever; chills; headache; muscle pain in the shoulders, lower back, and thighs; nausea; vomiting; diarrhea; and dizziness. After the first 3 to 7 days of illness, there is usually an abrupt onset of respiratory symptoms (such as coughing and shortness of breath resulting from swelling in the lungs and severe oxygen deficit). These symptoms progress rapidly and require prompt medical intervention.

Transmission

Transmission of hantavirus occurs through direct contact with infected rodents, rodent droppings, nests, or inhalation of aerosolized virus particles from rodent urine, droppings, or saliva. Rarely, infection may be acquired from rodent bites or contamination of broken skin with rodent secretions.

Incubation Period

May be 1 to 6 weeks after exposure

Prevention and Control

The best way to avoid hantavirus includes measures to decrease exposure to rodents in and around the home and workplace. Eliminate food sources available to rodents, limit possible nesting sites, and seal holes or other possible entrances for rodents.

It is also *very* important to take precautions when cleaning areas with rodent activity. Before entering areas with potential rodent infestations, open windows and doors to ventilate the enclosure. Avoid stirring up or breathing potentially contaminated dust. Dusty or dirty areas should be moistened with a 10% (9 parts water to 1 part bleach) solution before being cleaned. Brooms and vacuum cleaners should never be used to clean rodent- infested areas. Never touch dead animals with your bare hands. Use a shovel to place them in a plastic bag and then dispose of them in the trash.

Treatment

Treatment for any communicable disease should always be done in consultation with your health care provider.

Individuals suspected of being infected with hantavirus should be hospitalized immediately. Medical management within 24 to 48 hours of respiratory difficulty is critical for recovery.

Ribavirin may be beneficial against hantavirus and is currently being evaluated.

Resources

www.cdc.gov

Click on "Diseases and Conditions" and select the disease on interest.



Picture of a deer mouse, courtesy CDC