

SEOUL VIRUS

Frequently Asked Questions

Updated January 19, 17

What is Seoul virus?

Seoul virus is a type of hantavirus. Infection with Seoul virus can cause hemorrhagic fever with renal syndrome (HFRS).

How do humans become infected with Seoul virus?

Seoul virus is carried and transmitted by brown or Norway rats. The virus has been found in both pet rat and wild rat populations around the world. People can become infected with this virus after coming into contact with urine, droppings, or saliva of infected rodents. When fresh rodent urine, droppings, or nesting materials are stirred up, such as during vacuuming or sweeping, tiny droplets containing the virus get into the air. Transmission may also occur when infected urine or feces come into direct contact with cuts or broken skin, or with the eyes, nose, or mouth. In addition, individuals who work with live rodents can be exposed through bites from infected rats.

HFRS from Seoul virus is not known to be transmitted from one person to another.

Where is Seoul virus found?

Seoul virus is found worldwide. Human infection from Seoul virus is rare in the United States.

Which rodents carry the hantaviruses that cause HFRS in humans?

The brown or Norway rat (*Rattus norvegicus*) is the only animal that may carry Seoul virus.

What are the symptoms of Seoul virus infection?

Symptoms of Seoul virus infection usually develop within 1 to 2 weeks after exposure to the virus. In rare cases, symptoms may take up to eight weeks to develop. Initial symptoms begin suddenly and may include intense headaches, back and abdominal pain, fever, chills, nausea, and blurred vision. Individuals may have flushing of the face, inflammation or redness of the eyes, or a rash. Later symptoms can include low blood pressure, acute shock, vascular leakage, and acute kidney failure, which can cause

severe fluid overload. Seoul virus infections are usually mild to moderate and the vast majority of patients survive (case fatality rate approximatley 1-2%). Complete recovery can take weeks or months.

How is Seoul virus infection diagnosed?

Laboratory tests of blood are used to confirm a diagnosis of Seoul virus infection.

How is Seoul virus infection treated?

Supportive care is used for patients with Seoul virus infections. There is no treatment for Seoul virus. Patients with Seoul virus infection are provided supportive care such as careful management of fluid (hydration) and electrolyte (e.g., sodium, potassium, chloride) levels, maintenance of oxygen and blood pressure levels, and appropriate treatment of any secondary infections. In severe cases, dialysis may be required.

Is Seoul virus infection ever fatal?

Death due to Seoul virus infection is rare but is estimated to occur in approximatley 1-2 percent of patients.

How is Seoul virus infection prevented?

Individuals should avoid contact with rodent urine, droppings, saliva, and nesting materials. It is important to use disinfectant and follow guidelines for cleaning rodent-infested areas. More information on how to safely clean up after rodents can be found on CDC's webpage: <https://www.cdc.gov/rodents/cleaning/index.html> .

How do rats become infected with Seoul virus?

Seoul virus is shed in the urine, feces, and saliva of recently infected rats. Rats can become infected with Seoul virus through wounding or biting other rats and after coming in contact with the excreta (urine, feces) of infected rats.

How do I know if my pet rat is infected with Seoul virus?

Rats do not show symptoms of disease when they are infected with Seoul virus. The only way to know if they are infected is to test for evidence of viral infection in a laboratory.

Is this virus the same one that causes Hantavirus Pulmonary Syndrome (HPS)?

No. HPS is a different syndrome caused by different viruses. HPS is typically more severe than Seoul virus.

What should I do if I have concerning symptoms?

If you have been exposed to this species of rat and have symptoms, seek prompt medical attention.