

Health Advisory – Locally Acquired Hantavirus Case in King County, August 23, 2023

Actions Requested

- **Be aware of a recent case of locally acquired Hantavirus Pulmonary Syndrome (HPS) reported in a resident of southeast King County.**
- **Maintain a high index of suspicion in patients with [compatible clinical syndrome](#) of HPS and risk factors for exposure to hantavirus. Patients present with a nonspecific clinical syndrome that progresses in severity.**
 - Prodrome involves 3-5 days of symptoms that may include fatigue, fever, myalgias (large muscle groups), headache, dizziness, chills, nausea, vomiting, diarrhea, abdominal pain.
 - Pulmonary symptoms appear 4-10 days after prodrome, including cough, shortness of breath, rapidly progressive acute respiratory distress syndrome (ARDS), hemodynamic compromise. Chest imaging may show interstitial infiltrates.
- **Take a thorough history regarding exposures for hantavirus infection.**
 - Risk factors include direct contact with rodents and exposure to areas with rodent infestation, nesting materials, and excreta. Deer mice are the primary carrier in Washington state.
 - Ask about the home, recreational or occupational activities, entering seasonally closed structures or buildings, infested automobiles. Consider air filters, vents, ducts, attics and crawl spaces. Because many HPS patients do not report explicit exposure to rodents, living or working in a heavily wooded, rural area should be considered a potential exposure risk.
 - Incubation varies between 1 – 8 weeks (average 2 weeks).
- **If HPS is suspected, repeat CBC and blood chemistry every 8-12 hours.**
 - Platelet count <150,000 units is seen during the prodromal period in about 80% of cases. A dramatic decrease in platelet count may indicate transition from prodrome to pulmonary edema phase of illness.
 - A decrease in serum albumin and an increase in hematocrit may indicate a fluid shift from the patient's circulation into the lungs.
 - WBC count tends to be elevated with a marked left shift, frequently with atypical lymphocytes and immature precursor cells as high as 50%; this is usually seen at time of onset of pulmonary edema.
- **Obtain commercial hantavirus serology (Hantavirus Ab IgM and IgG) in patients suspected to have HPS and an exposure risk associated with hantavirus infection. Submission of all positive specimens to the Washington State Public Health Laboratory is required.**
- **Consider consultation with an ID specialist and [initiate supportive treatment](#). There are no effective antiviral therapies available. Person-to-person transmission has not been documented in North America.**
- **Report suspected and confirmed hantavirus cases within 24 hours to Public Health at (206)-296-4774.**

Background

Hantavirus is a virus carried by some rodents, including deer mice in Washington State. Hantavirus can cause a rare but deadly disease called hantavirus pulmonary syndrome (HPS). In Washington, 1 to 5 HPS

cases are reported each year and about 1 out of 3 people diagnosed with HPS have died. HPS cases are rarely identified in King County, with only 9 reported since 1997. Prior to the present case, the last was in 2021 also in Southeast King County. We also had a cluster of 3 locally acquired cases in 2016-2017 in Issaquah. Among all 9 cases in King County, most were exposed within King County. Four had likely exposures to rodent droppings in a garage setting, three reported rodent infestation in or around their home and property. Additional exposures included an infestation in a vehicle air system and from sweeping up rodent droppings. The most recent case reported being bitten by a rodent in addition to potential exposure to a rodent infestation in a residential setting.

Resources

- [Hantavirus Information for Clinicians](#), CDC
- [Hantavirus Pulmonary Syndrome](#), Public Health – Seattle & King County
- [Hantavirus Information](#), WA State Department of Health
- [Identification and Care of Patients with Hantavirus Disease, June 2016](#), CDC COCA Call

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