

**Communicable Disease Epidemiology
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Health Advisory – Hantavirus Update, King County, 4 April 2017

Action requested:

- Be aware that there is an increased risk for hantavirus infection in areas of King County, with 2 recently confirmed cases and one new suspected case of locally-acquired Hantavirus Pulmonary Syndrome (HPS) reported since December, 2016. **Maintain a high index of suspicion** in patients with a compatible clinical syndrome and risk factors for exposure.
- **Take a history for potential hantavirus exposure** risk factors in patients with a compatible clinical presentation. The **incubation period for HPS is typically about 12 days (range: several days to 8 weeks)**.
- **Risk factors** include exposure to areas with rodent or deer mouse infestation, nesting materials, and excrement, including in the home, through recreational or occupational activities, and, possibly through infested automobiles (including potentially cabin air filters, vents, ducts & interiors). Because many HPS patients do not report exposure to rodents, **living or working in a rural/wooded area should also be considered a potential exposure risk**.
- A **nonspecific prodrome** last 3-5 days and can include fever, headache, myalgias, malaise, nausea, vomiting, diarrhea, and abdominal pain. Four to 10 days later, **cardiopulmonary phase** of HPS may develop with cough, shortness of breath, interstitial infiltrates, rapidly progressive non-cardiogenic edema/ARDS, and hemodynamic compromise (see, <https://www.cdc.gov/hantavirus/technical/hps/clinical-manifestation.html>).
- Commercial hantavirus serology (IgM and IgG) testing should be obtained. Report suspected and confirmed HPS cases within 24 hours to Public Health at (206) 296-4774.
- **If HPS is suspected, a CBC with platelet count and blood chemistry** should be repeated every 8-12 hours. **A platelet count <150,000 units is seen during the prodromal period in 80-85% of cases, although it may be normal early in the prodrome**. The WBC count tends to be raised with a marked left shift and immature precursor cells, usually at the time of onset of pulmonary edema.
- Treatment is supportive (see resources, below), there is no specific antiviral therapy available.

Background: Hantavirus infections are rare in King County, with 6 total cases reported since 1997. One case, reported in December 2016, resided in a wooded residential area of Redmond, the second case and the third suspected case resided in different areas of Issaquah near Squak Mountain. Prior to these recent cases, only one previous case acquired in King County has been reported, in 2003. The increase in cases suggests an increased risk potentially related to environmental conditions promoting an increase in the number of infected deer mice and/or their proximity to humans. This risk may persist for months. One of the recent cases reported an infestation of the cabin air filter of her automobile; the others reported rodent infestation in and around the home. Health care providers should be aware of risk factors for hantavirus exposure, including infested homes, cabins, workspaces and vehicles (including, potentially, their air handling system [filters, vents, ducts]). Some HPS patients may not report exposure to rodent infestation or nesting materials.

Resources

- **CDC hantavirus information for clinicians:** <https://www.cdc.gov/hantavirus/technical/index.html>
- **Identification and Care of Patients with Hantavirus Disease (CDC COCA FREE CME),** https://emergency.cdc.gov/coca/calls/2016/callinfo_063016.asp
- **Public Health hantavirus information and fact sheet:** <http://www.kingcounty.gov/depts/health/communicable-diseases/disease-control/hantavirus.aspx>

- **WA State Department of Health hantavirus information:**
<http://www.doh.wa.gov/YouandYourFamily/IllnessandDisease/Hantavirus>