

**Communicable Disease Epidemiology
and Immunization Section**

401 5th Avenue, Suite 1250
Seattle, WA 98104

206-296-4774 Fax 206-296-4803

TTY Relay: 711

www.kingcounty.gov/health

Health Advisory – Hantavirus Cases, King County, 23 March 2017

Action requested:

- Be aware that there have been 2 cases of Hantavirus Pulmonary Syndrome (HPS) reported in King County since December, 2016.
- Be familiar with, and take a history for, risk factors for hantavirus exposure in patients with a compatible clinical presentation. The incubation period for HPS ranges from several days to 8 weeks.
- Nonspecific prodromal symptoms last 3-5 days and can include fatigue, fever, myalgias (especially in the large muscle groups), headache, dizziness, chills, nausea, vomiting, diarrhea, and abdominal pain. Four to 10 days after the initial phase of illness, late symptoms and signs of HPS may appear, with cough, and/or 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>). Consider consultation with an ID specialist.
- Risk factors include exposure to areas with rodent (deer mouse in the WA State) 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).
- 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 and blood chemistry should be repeated every 8-12 hours. A fall in serum albumin and a rise in hematocrit may indicate a fluid shift from the patient's circulation into the lungs. The WBC count tends to be raised with a marked left shift and atypical lymphocytes are frequently present, usually at the time of onset of pulmonary edema.
- In about 80% of individuals with HPS, the platelet count is <150,000 units. A dramatic fall in the platelet count may herald a transition from the prodrome to the pulmonary edema phase of the illness.

Background

Hantavirus infections are rare in King County, with 6 total cases reported since 1997. One case, diagnosed in December 2016, resided in a wooded residential area of Redmond, the second recent case, diagnosed earlier this month, resided in Issaquah. Prior to these 2 recent cases, only one previous case acquired in King County has been reported (in 2003). It is not known whether the current cluster represents an increase risk for our area potentially related to environmental conditions or changing deer mouse ecology. One of the recent cases is reported to have had an infestation of the cabin air filter of her automobile; the other had 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 automobiles (and potentially their air handling system [filters, vents, ducts]. Some 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>