

Zoonotic Disease Risk Handout

This information sheet is being supplied to you to help assist you in understanding risks faced in the conduct of your job at The University of Toledo (UT). It is supplied to personnel identified as having a reasonable occupational exposure risk to the agent described. This information has been developed with the assistance of the UT Division of Laboratory Animal Medicine, Office of Health and Safety and the Office of Occupational Medicine. Questions and concerns should be directed to any of the units.

Hantavirus: HantaVirus Pulmonary Syndrome is a recently recognized infectious process associated with contact with wild rodents and their infectious urine and feces. Field researchers not working on rodents but in a contaminated environment have been killed by the infection. Hence, all field researchers should be aware of the infection risk and work to minimize exposure. The infection is caused by a virus whose primary host is *Peromyscus maniculatus*, the deer mouse. The virus has been found in other species but the importance of them as hosts has not been elucidated. The virus is shed in urine and feces; these materials easily become airborne after dying. The infection in humans has been seen principally in the Southwestern USA but has been seen elsewhere.

Onset of the illness has been characterized by early signs consisting of fever, muscle aches, and variable respiratory symptoms followed by the abrupt onset of acute respiratory distress. Other symptoms reported during the early phase of illness have included headache and gastrointestinal complaints. The hospital course has been characterized by bilateral pulmonary infiltration, fever, hypoxia, and hypotension. It is important to note that no defined set of symptoms and signs reliably distinguishes HPS from other forms of noncardiogenic pulmonary edema or adult respiratory distress syndrome. Infection represents a medical emergency; the requirement for treatment is immediate and must not be delayed.

The epidemiology of the disease is not fully understood. Clearly, avoiding exposure to rodent infested environments, particularly enclosures where the opportunity for contamination is high, should be avoided. Rodent control in work and residential areas is important. Respiratory protection should be used in high risk environments.

When ill, it is important to discuss your possible occupational exposures with your attending physician as this information can be instrumental in timely diagnosis and treatment.