CITY OF MOORPARK

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Hantavirus Information Sheet



DEER MOUSE



MEADOW MOUSE



HOUSE MOUSE

Hantavirus Pulmonary Syndrome is a relatively new emerging disease that came into prominence following a major outbreak of the disease in the Four Corners region of the United States in 1993. A rodent-borne disease, Hantavirus has since been found throughout most of the United States. Human illnesses, including over 100 deaths, have been reported from 30 states. The virus is endemic in all areas of California. In Santa Barbara County, Hantavirus has been found in Santa Ynez, on the Channel Islands, and in the greater Santa Barbara area.

Approximately 30 strains of Hantavirus are known to occur worldwide. The primary vector of Hantavirus in the United States is the Deer Mouse (Peromyscus maniculatus), which carries the Sin Nombre strain of Hantavirus. Deer Mice are found in foothill, mountain, and other open areas throughout Santa Barbara County. Two other strains of Hantavirus that are not believed to cause human illness are also known to exist in California. The Isla Vista strain, carried by the California Meadow Vole or Meadow Mouse (Microtis californicus), was discovered for the first time in Goleta during 1994. The El Moro Canyon strain is carried by the Western Harvest Mouse (Reithrodontomys megalotis) and is found on the South Coast. Other species of rodents occasionally carry Hantavirus, so ALL RODENTS SHOULD BE PRESUMED TO BE INFECTED. Seoul Virus (an Asian strain of Hantavirus that is known to cause human illness) was found to be infecting a domestic Roof Rat (Rattus rattus) in Orange County, California during 1999. No subsequent finds of Seoul Virus have been made to date, but the precautions described below should be taken for all rodents regardless.

Hantavirus is transmitted mainly through the feces, urine, and saliva of infected rodents, particularly by inhaling dust particles contaminated with feces and urine. People can also be infected with the virus from a rodent bite or by touching their mouth, nose, or eyes after handling infected rodents, rodent droppings, or rodent nests. The California Department of Health Services recommends that buildings with heavy rodent infestations be ventilated and aired-out for several hours, then cleaned thoroughly where droppings have accumulated. As a precaution, the droppings should be moistened by spraying from above with a mixture of one part household bleach to five parts water and wet to the point of just being damp but not soaked. They should then be wiped up, placed in double plastic bags, and then disposed of in the trash. DO NOT SWEEP OR VACUUM DROPPINGS because of the possibility of contaminated dust particles being inhaled. Rubber gloves and dust masks are recommended. NEVER

HANDLE OR FEED LIVE WILD RODENTS. Dead rodents should be disposed of the same way as with droppings. Laboratory testing for Hantavirus in rodents collected by individuals is not available. Rodents, especially Deer Mice, should be controlled in cabins and other structures through exclusion, trapping, and the use of approved rodenticides.

Symptoms of Hantavirus Pulmonary Syndrome are initially flu-like; cough, fever, headache, nausea, vomiting, abdominal pain, shortness of breath, and aching muscles and joints. The disease can progress within hours to a life-threatening stage in which the lungs fill with fluid. Mortality is approximately 40%, so prompt medical attention is vital. Onset of symptoms can occur up to 6 weeks following exposure to the virus. As of October 2000, there have been 274 confirmed human cases (105 of them fatal) of Hantavirus Pulmonary Syndrome nationwide, including 33 cases (of which 14 were fatal) in California. One of the fatalities was a Santa Ynez man in 1992. In addition, two non-pulmonary human cases (Hantavirus infection without respiratory distress) have been identified in California.