

Safety Note #82

## FIELDWORK SAFETY: HANTAVIRUS PULMONARY SYNDROME



Deer Mouse

Hantavirus Pulmonary Syndrome (HPS) was first identified in the United States during 1993. According to information available from the National Center for Infectious Diseases, between May 1993 and July 2005 a total of 396 HPS cases were reported nationwide. Of this total 142 (or 36%) of the cases resulted in fatalities. Forty-three HPS cases and 15 fatalities have been reported in California as of December 31, 2004.

HPS is a disease caused by the *Sin Nombre* virus carried by wild rodents and in California, particularly by the deer mouse. Infection usually occurs when airborne particles of infectious deer mouse or other rodent droppings, saliva, and/or dried urine are inhaled. Infection may also be caused through a rodent bite. Handling infected deer mice or other rodents and/or their contaminated bedding materials can also cause infection by transfer of the virus from a person's hands to mucous surfaces located at the eyes, nose, or mouth.

HPS symptoms include fever, headache, shortness of breath, muscle aches, vomiting, and abdominal pain. Two to five days after infection, victims develop severe breathing difficulty and may require hospitalization. Persons who have contracted HPS are not contagious to others.

The following fieldwork precautions should be taken for HPS prevention:

- Personal protective equipment (PPE) must be worn when handling dead or live deer mice and other rodents. Depending on the potential exposure, PPE may include gloves, coveralls, and an air-purifying respirator. Wash your hands after handling any rodents.
- If possible, avoid disturbing or cleaning up deer mice or other rodent nests or droppings.
- Do not work inside poorly-ventilated buildings or enclosures within a fieldwork area. Especially where deer mice or other rodent contamination is present, unless the space has been thoroughly ventilated and respiratory protection is used.
- Practice good housekeeping to reduce the risk of rodents in living or work areas.
- If bitten by a deer mouse or other rodent, wash the wound thoroughly with soap and water and cover with a sterile bandage. Then, promptly seek professional medical attention.
- If you suspect you have been exposed to the *Sin Nombre* virus, promptly seek professional medical attention.

If you need to clean an area that has been contaminated by rodents, follow these procedures:

- Open windows and doors to ventilate the contaminated area for at least two hours.
- Wear sturdy rubber gloves.
- Use a 10% bleach or Lysol solution to wet down and disinfect potentially contaminated items (rodent droppings, dead rodents, nests, traps and surrounding areas).
- Allow at least 15 minute contact time for the disinfectant solution, then wipe up with a damp mop, sponge, or paper towels.
- DO NOT SWEEP OR VACUUM – this could cause particles of virus to become airborne.
- Double-bag the disinfectant-soaked items and discard in the trash.
- Rinse gloves in disinfectant solution before removing, then wash hands in soap and water.