



Manitoba Association of Cottage Owners

Health and Safety

Prepared: September 13, 2015

Issue: Hantavirus Risk from Deer Mice

Background to the Issue:

- Hantavirus is a rare but very serious infection.
- Typical symptoms are flu-like – fever, headache, nausea, vomiting, muscle aches, diarrhea, abdominal pain and shortness of breath.
- Symptoms occur between 3 days to 6 weeks after exposure.
- North American Hantavirus infection is called Hantavirus Pulmonary Syndrome (HPS) and active surveillance began in 1994.

Cautionary Notes:

- The usual host of the virus is the deer mouse. The deer mouse can be pale gray to reddish brown and has white fur on its feet, belly and underside of the tail. It is most recognizable for its very large ears. They also tend to move much slower than field mice. They live primarily in rural and semi-rural areas but can reside in urban centres. A survey in southern Manitoba found that deer mice represent 95% of mice caught and 11% of them were infected.
- Rarely, if ever, spread from person to person and not from pets or livestock.
- The virus spreads to people when they:
 - Breathe air contaminated by deer mouse saliva, urine or feces containing infectious hantavirus; or
 - Accidentally rub eyes, mouth or broken skin with hantavirus-infected deer mouse saliva, urine or feces.
 - May also be spread from eating food contaminated by infected deer mouse saliva, urine or feces or being bitten by an infected mouse.



Current precautions for this issue:

The following precautions are recommended:

1. Points of entry into buildings, such as cracks in the foundation or holes, should be sealed using steel wool, metal roof flashing or cement. Mice can squeeze through cracks as thin as a dime.
2. Discourage rodents from living in buildings and homes by using rodent-proof storage containers for food, pet and animal food, grain and garbage. Clean up spilled/dropped food in eating areas.
3. Other measures include:
 - keeping grass short and yards clean;
 - placing wood piles 100 feet or more from the home;
 - removing abandoned vehicles, discarded tires and old, unused buildings that may serve as nesting sites;
 - secure garbage with tight-fitting lids; the use of poison.
 - Poisons can be dangerous and should be used with caution and on a short-term basis while other measures take effect. If poison is used, it should be placed out of reach of children, pets or livestock.
4. Handle dead rodents (or nests) while wearing plastic or rubber gloves.
 - Wet carcasses (or nesting materials) with bleach disinfectant (one part household bleach plus nine parts water, ex: 100 ml bleach plus 900 ml water); allow 10 minutes for disinfectant to act, and place in doubled plastic bags.
 - Keep area to be cleaned wet so no dust is created. Burning is another option as is deep burial (two feet).
 - Clean all traps, wash plastic or rubber gloves with disinfectant before taking them off and wash hands with soap and water after handling carcasses or traps.
 - Testing rodents for the presence of hantavirus is not recommended.
5. When cleaning up areas/objects contaminated by rodent urine, feces or nests:
 - Open windows and doors for 30 minutes before and after disinfecting;
 - Dampen areas contaminated with rodent droppings with bleach disinfectant (see 3 above); however, if area is carpeted use a mixture of water, detergent and commercially available disinfectant such as Lysol. Commercial-grade steam cleaning or shampooing is also an alternative for carpets;
 - Remove droppings by damp mopping (wipe area with a mop or cloth dampened with disinfectant), preferably twice. NEVER REMOVE DROPPINGS BY SWEEPING OR VACUUMING;
 - Wear plastic or rubber gloves, as well as full-length clothing during clean-up to minimize contact with skin;
 - Use gloves to handle soiled clothes and wash laundry with hot water and detergent, or soak it in hot, soapy water until it can be washed. Put in the dryer on “high” setting or allow to dry in the sun;

- If dust cannot be avoided in such an area that has to be cleaned, respirator equipment with N-100 filters should be used as a minimum (available from safety equipment stores). For extremely dusty and lengthy exposures, other options are available (check with safety equipment stores or Workplace Safety and Health, 945-6848). The use of goggles in these situations is also advised;
 - Respirators are not considered protective if facial hair interferes with the face seal, since proper fit cannot be assured. Fit testing is available where respirators are sold; and
 - Thoroughly wash hands and face after cleaning any area or objects (ex: clothing, dishes, etc.) contaminated by rodent droppings.
6. Camping or outdoor activities can expose people to rodents and their droppings. Avoid playing on hands and knees or camping in grass or other areas where there is evidence of rodents such as tunnels, nests, dead mice, feces, etc.
- Do not stay in cabins that have obvious signs of rodent activity (ex: droppings or chewing damage) unless they are properly cleaned (See 4 above).
 - Store food in rodent-proof containers.
 - Handle firewood with care since deer mice frequently live in or around woodpiles.
7. Store-bought pets such as gerbils, mice, rats and others are safe from hantavirus. Parents should warn children not to play with wild (live or dead) rodents or their nests.
8. If you have flu-like symptoms three days to six weeks following an exposure to rodents, you should contact a doctor immediately.
- Advise your doctor of the possible exposure.
 - The diagnosis of hantavirus infection is made on the basis of symptoms and blood tests.

Action Taken by MACO:

- Advise cottagers through newsletters and websites to be cautious when encountering rodent infestations.

MACO's Recommendations for the Future:

- Check the website regarding Hantavirus
<http://www.gov.mb.ca/health/publichealth/diseases/hantavirus.html>
- Also see the MediaBulletin of Office of Chief Provincial Public Health Officer, Province of Manitoba of May 15, 2009 <http://news.gov.mb.ca/news/index.html?archive=2009-5-01&item=5884>
- For more information you may contact your doctor, your local Public Health Unit or Health Links-Info Sante at 1-888-315-9257 or 204-788-8200.
- If you experience symptoms, see the doctor and advise the area where you have been.

Position of MACO

- Take precautions when possible.
- Follow recommendations of health officials.
- Contact your local public health unit or call Health Links-Info