Safe Rat Handling in Schools: Interim Guidance

In January, 2017, the Illinois Department of Public Health (IDPH) was notified of Seoul virus infection in eight people who handled or owned rats purchased from Wisconsin (one location) or Illinois (two locations) rat breeding facilities. At this time, it is not known how widespread the Seoul virus is in pet rats. States are working to identify rat breeding facilities where there may be rats with Seoul virus and will update information as it becomes available.

Schools may have pet rats in the classroom. At this time, no illnesses have been reported in people linked to classroom rats. There is no recommendation to test or remove the pet rats unless you have been notified that your pet rat was purchased from one of the affected rat breeding facilities. Safe handling of pet rats, along with thorough and regular cleaning and disinfection of rat cage areas are important and should be done at all times and with all pet rats.

The following points are important for schools, teachers, and other rat caretakers to review:

**Notification**
If your pet rat was known to be associated with one of the breeding facilities linked to Seoul virus cases, you would have been contacted.

**Transmission of Seoul virus**
The Seoul virus is not transmitted person to person. As with other diseases carried by rodents, Seoul virus is transmitted to people from direct contact with rat urine or feces, contaminated materials like bedding, and possibly by aerosolized feces, urine, or saliva. It can also be transmitted through a bite from an infected rat.

**Symptoms of Seoul virus in rats**
Infected rats will not show any symptoms of illness. However, you should routinely monitor the health and behavior of your pet rat and contact a veterinarian if the rat seems ill.

**Symptoms of Seoul Virus in Humans**
In people, symptoms may include fever, severe headache, back and abdominal pain, chills, blurred vision, redness of the eyes, or rash. In severe cases, infection can also lead to acute renal disease. However, not all people infected with the virus experience symptoms.

People who have handled pet rats and have symptoms should contact their healthcare provider; it is important to inform your healthcare provider that you have had contact with pet rats.
Safe handling of pet rats

Rats can carry and transmit many different diseases if not safely handled and maintained. Safe handling of pet rats is urged at all times.

- Provide instruction to students, volunteers, and other rat handlers on safe rat handling, including how to avoid bites. Students handling rats should be supervised at all times during rat handling.
- When classroom rats are taken home with students or staff for extended school breaks, staff should ensure parents/guardians and student, or staff caretakers of the rats have received instruction on all safe rat handling practices. In addition to verbally reviewing the information, provide written guidance.

The Centers for Disease Control and Prevention (CDC) guidance on how to avoid becoming ill with diseases carried by rats includes the following:

- Avoid bites from pet rats.
- Wash your hands thoroughly with soap and water after handling your pets or areas where your pets have been.
- Keep your small pets and their cages out of kitchens or other areas where food is served.
- Do not eat or drink while tending to pet rats.
- Keep the rats in a small designated area of the classroom; do not allow them to roam or be handled outside of this area.
- Clean pet cages, bedding, toys, and feed or water containers away from areas where food is served or people may bathe.
- Use gloves and a face mask for cleaning.
- Avoid creating dust from fecal materials by wetting down bedding and disinfecting it prior to removing it during cage cleaning.
- Do not sweep or vacuum rodent urine, droppings, or nests as this sends particles into the air.
- Cover cuts and scratches before handling your pet.
- Don’t keep small pets in a child’s bedroom or near nap areas, especially with children younger than five years.
- Don’t snuggle or kiss small pets; do not touch your mouth after handling small pets.
CDC guidance documents are available at the following links:

- CDC: Fact Sheet on Healthy Pets
- CDC: Key Messages About Pet Rodents
- CDC: Small Mammals

Cleaning and Disinfection of rat cages and areas near rat cages

- Keep cages and surrounding areas clean. After cleaning rat cages, disinfect the cage and items in the cage.
  - A bleach solution can be used for disinfecting the cage. The recommended concentration of bleach solution is one part bleach to 10 parts water.
  - When using a commercial disinfectant, following the manufacturer's instructions on the label for dilution and disinfection time.
- Dispose of rat bedding without stirring up dust created by sweeping or vacuuming droppings, urine, or nesting materials; soak bedding with disinfectant for five minutes before removing to help decrease dust particles.
- Wear rubber, latex, or vinyl gloves when cleaning up urine and droppings. Always thoroughly wash hands with soap and water after removing gloves.
- Remember to clean and disinfect the cage and area around the rat cage.
  - Mop floors and clean countertops with disinfectant or bleach solution.
  - Routinely steam clean or shampoo upholstered furniture, carpeted areas, or rugs if the rat is allowed to be on them, and consider discontinuing this practice.
  - Wash clothing exposed to rat urine or droppings with laundry detergent in hot water.

If you have any additional questions or concerns about this topic, call your local health department or the IDPH Communicable Disease Section at 217-782-2016.