GULF ISLANDS SCHOOL DISTRICT 64

Hantavirus – Exposure Control Plan (ECP)

Purpose

To provide SD 64 worker's information health and safety concerns regarding Hantavirus and a procedure to follow for safe clean-up of rodent droppings to limit potential exposure to Hantavirus.

Responsibilities

Employer:

- Ensure the personal protective equipment (PPE) and other resources are available to workers for implementation of the Exposure Control Plan (ECP).
- Annual review of the ECP to ensure effectiveness.
- Ensure training of applicable staff on the ECP.
- Maintain records of training.

Supervisors (Site-Manager or Principal/Vice-Principal):

- Be knowledgeable of the ECP and ensure available to workers.
- Instruction to applicable workers on the hazards associated with Hantavirus and dropping clean-up Safe Work Procedure.
- Ensure staff follow the ECP and Safe Work Procedure's, including proper use of PPE.
- Investigate reported hazards and take corrective action.

Workers:

- Attend training, as required.
- Follow Safe Work Procedure.
- Use and maintain all provided PPE, as required, in a safe and effective manner.
- Reporting unsafe work conditions or acts to supervisor immediately.
- Report incidents of exposure to supervisor, asap.

Hantavirus Background

Transmission

Infected rodents (deer mice) shed the virus in saliva, urine and droppings. The virus usually spreads to humans when particles of infected saliva, urine or feces are inhaled. The virus may be inhaled during direct contact with the rodents or from breathing airborne dust particles generated when rodent excreta is disturbed. People may also become infected if contaminated materials come into contact with broken skin, eyelids or eyeball.

Adverse Health Effects

The disease caused by Hantavirus is called Hantavirus pulmonary syndrome (HPS). HSP is a rare disease and there is no evidence that is can be transmitted from person to person. Hantavirus does not stay viable for long outside the host – less than a week indoors and a few hours under direct sunlight.
The symptoms may appear 5 to 45 days after exposure. It begins with flu-like disease (early stage) with symptoms including fever, sore muscles, headaches, nausea, vomiting, abdominal pain and shortness of breath. Severe respiratory failure (can result in death) can occur with a few days of early stage symptoms.

Hantavirus – Exposure Control Plan (ECP)

If Exposed:

- Seek first aid from a first aid designate if exposure (inhalation is the most common) occurs.
- Report to your Site-Based Manager or P/VP ASAP.
- Call 811 for next steps.

Risk Control

Risk of hantavirus exposure is low for small clean-up quantities in most settings. Large quantity clean-up risk level will depend on the quantity of waste, location of the waste and involve consultation with pest control company. Controls to mitigate the risk of exposure are embedding within the Safe Work Procedure by way of engineered controls (e.g. HEPA vacuum), administrative procedures (e.g. wet clean up and no dry sweeping) and PPE (e.g. mask, gloves, googles, etc.). If there are any questions regarding a particular task please contact District OHS.

Safe Work Procedure

Consult with District OHS if the work does not fit within the SWP or there are concerns regarding worker Health and Safety.

CAUTION: Never clean-up rodent droppings unless you have the received training on this procedure, have the appropriate equipment and PPE.

Small Clean-up

When cleaning areas where **rodent droppings are in small quantities**, workers must:

1. Clear unnecessary workers in the area.
2. Increase ventilation by opening windows, if possible.
3. Wash your hands for at least 20 seconds as per hand washing SWP.
4. Don required PPE:
    - Disposable N95 respirator
        - Secure the mask behind the head/ears and under chin ensuring a snug fit.
        - Do not touch the inside of the mask.
    - Disposable nitriles gloves.
5. Spray debris with disinfectant to soak the material, see Table 1 below. Avoid using a stream of liquid as this may create aerosols.
6. Scoop up material or wipe debris with paper towel.
7. Wipe and/or mop surfaces with disinfectant.
8. Dispose of material in plastic bag and seal. Double bag the waste and avoid punctures to bags. Dispose in the outside dumpster immediately.
9. Doff PPE:
    - Disposable nitriles gloves.
        - Remember the outside of the gloves are contaminated. Grasp palm area of gloved hand and peel off first glove. Slide fingers of hand under other glove at wrist and peel off.
    - Wash hands as the Hand Washing SWP.
    - Disposable N95 respirator.
        - Remove mask by straps behind head/ears and with eyes closed, leaning forward.
    - Dispose of PPE in garbage.
    - Wash hands as the Hand Washing SWP.

Significant Clean-up

When cleaning areas where **rodent activity is significant** (e.g. a large clean-up of rodent dropping or when handling materials (insulation, etc.) contaminated with rodent droppings due to infestation) quantities, workers must:

1. Clear unnecessary workers in the area.
2. Increase ventilation by opening windows, if possible.
3. Don required PPE:
    - Wash hands as the Hand Washing SWP.
    - Half face respirator with P100 cartridges.
        - Secure the mask behind the head/ears and under chin ensuring a snug fit. Do not touch the inside of the mask.
    - Disposable nitriles gloves,
    - Disposable coveralls,
    - Goggles without vent holes and
    - Disposable shoe covers or rubber boots.
4. Spray debris with disinfectant to soak the material, see Table 1 below. Avoid using a stream of liquid as this may create aerosols.
5. Collect materials via one of the following:
    - Vacuum debris with HEPA vacuum or
    - If material is soaked through scoop up material or shovel into plastic bag.
6. Wipe and/or mop surfaces with disinfectant.
7. Dispose of material in plastic bag and seal. Double bag the waste and avoid punctures to bags. Dispose in the outside dumpster immediately.
8. Doff PPE:
    - Disposable nitriles gloves.
        - Remember the outside of the gloves are contaminated. Grasp palm area of gloved hand and peel off first glove. Slide fingers of hand under other glove at wrist and peel off. Discard in regular waste.
    - Wash hands as the Hand Washing SWP.
    - Remove disposable coveralls.
    - Remove eyewear and disinfect.
    - Wash hands as the Hand Washing SWP.
    - Half face respirator.
        - Remove respirator by straps behind head/ears and with eyes closed, leaning forward.
        - Remove cartridges, tape over inlet of cartridges and place in ziploc.
        - Wipe down respirator with disinfectant.
    - Place of disposable PPE in double bagged plastic bag and seal. Avoid punctures to bags. Dispose in the outside dumpster immediately.
    - Wash hands as the Hand Washing SWP.

Carcass Disposal

1. Don required PPE:
    - Wash hands as the Hand Washing SWP.
    - Half face respirator with P100 cartridges.
        - Secure the mask behind the head/ears and under chin ensuring a snug fit. Do not touch the inside of the mask.

- Disposable nitriles gloves,
- Disposable coveralls,
- Goggles without vent holes and
- Disposable shoe covers or rubber boots.

2. Spray carcass with disinfectant before placing in plastic bag, see Table 1 below for disinfection time. Avoid using a stream of liquid as this may create aerosols.
3. When carcass is soaked though until the point of run off dispose in double lined plastic bag.
4. **DO NOT touch any traps.** Notify pest control company to address.
5. Wipe and/or mop surfaces with disinfectant.
6. Dispose of material in plastic bag and seal. Double bag the waste and avoid punctures to bags. Dispose in the outside dumpster immediately.
7. Doff PPE:
    - Disposable nitriles gloves.
        - Remember the outside of the gloves are contaminated. Grasp palm area of gloved hand and peel off first glove. Slide fingers of hand under other glove at wrist and peel off. Discard in regular waste.
    - Wash hands as the Hand Washing SWP.
    - Half face respirator.
        - Remove respirator by straps behind head/ears and with eyes closed, leaning forward.
        - Remove cartridges, tape over inlet of cartridges and place in ziploc.
        - Wipe down respirator with disinfectant.
    - Remove disposable coveralls.
    - Remove eyewear and disinfect.
    - Place of disposable PPE in double bagged plastic bag and seal. Avoid punctures to bags. Dispose in the outside dumpster immediately.
    - Wash hands as the Hand Washing SWP.

Table 1: Shows the contact time required for the cleaning product to ensure effective disinfection.

Product	**Contact Time**
Vital Oxide	10 minutes
Percept (1:16)	5 minutes
Oxivir Tb wipes	1 minute
Oxivir Plus (1:40)	5 minutes