

Dr Sancho Rodriguez-Villar, LMS, MSc, PhD, EDIC
Senior Clinical Advisor for the WJA

Consultant in Critical Care Medicine
King's College Hospital NHS Foundation Trust
Denmark Hill, London SE5 9RS, United Kingdom

Honorary Senior Clinical Lecturer in the "GKT School of Medical Education, Faculty of Life Sciences & Medicine at King's College London". London, United Kingdom.



HANTAVIRUS

Rodent exposure awareness for water jetting, drainage and sewer work
Risk is usually low. Serious illness is rare, but early recognition matters.

1. What is hantavirus?

- **A family of rodent-carried viruses.** Different strains occur in different parts of the world.
- **Main route:** breathing tiny particles from infected rodent urine, droppings (faeces), saliva or nesting material when these are disturbed.
- **Other routes:** contaminated material entering cuts, eyes, nose or mouth, or very rarely a rodent bite/scratch.
- **Illness patterns:** lung/heart disease (HPS/HCPs, mainly the Americas) or kidney disease (HFRS, mainly Europe/Asia; Seoul virus is worldwide and linked to rats).
- **Person-to-person spread is unusual.** Most hantaviruses do not spread between people. The Andes virus is the main recognised exception and usually requires close/prolonged contact with an ill person.

UK context: published UK sero-surveillance found occupational groups, including sewage workers, were not thought to be at greater risk than the general population. This leaflet is for awareness and safe practice, not a reason to stop routine work where there are no rodent signs.

2. Why WJA members should know



- Drain, sewer and water jetting work may disturb rodent-contaminated dust, debris, nests or residues in confined or poorly ventilated areas.
- Higher-risk places include culverts, sewers, pump stations, basements, farms/grain stores, yards, abandoned buildings, flood-response jobs and unused vehicles or plants.
- Jetting, compressed air, vacuuming or dry sweeping can aerosolise contaminated material if controls are not in place.
- The aim is simple: spot rodent signs, prevent dust/aerosol, report credible exposures and recognise symptoms early.

SPOT
rodent signs

CONTROL
dust/aerosol

REPORT
symptoms/exposure



Before starting: does the job involve any of these?

- | | |
|--|--|
| <ul style="list-style-type: none"> ☐ Rodent droppings, urine marks, nests, dead rodents, gnawing or strong rodent smell. ☐ Rodent signs in a sewer access, culvert, pump station, basement, silo, farm drain, yard/store or vehicle/equipment intake. ☐ A heavy infestation, piles of droppings, several nests, or unknown biological contamination. | <ul style="list-style-type: none"> ☐ Dry dust or deposits in an enclosed or poorly ventilated space. ☐ A task that may disturb material by jetting, dry sweeping, vacuuming, compressed air, debris removal or insulation/bedding removal. ☐ A worker bite/scratch or material splashed into the eyes, mouth or broken skin. |
|--|--|

If yes: pause, follow the control plan on page 2 before disturbing the material. Do not create dust or aerosol until the job has been risk assessed and made safe.

Current context (May 2026): recent public-health updates have highlighted the Andes virus, a hantavirus strain that can rarely spread between people after close/prolonged contact. For WJA work, the core control remains avoiding exposure to rodent urine, droppings, saliva and nests.

Routine

No rodent signs or dust/nesting material: continue normal RAMS, hygiene, and PPE.

Controlled task

Some rodent signs or contamination: pause, assess, wet/disinfect, use PPE/RPE selected for the risk.

Stop/escalate

Heavy infestation, enclosed, dusty area, nests/dead rodents, bites/splash, or unknown contamination: stop and get advice.

On-site control plan for rodent-contaminated work

Use this as a simple add-on to the job risk assessment. Local WJA, company, client, confined-space and public-health rules take precedence.

 1. STOP / PLAN • Report rodent signs. Keep non-essential people away; do not eat, drink, smoke or vape in the area. • Ventilate where safe. Open/ventilate enclosed areas before entry when practicable and in line with confined-space rules. • Heavy infestation? Stop routine work and get supervisor, pest-control or occupational hygiene advice before disturbing material. • Record the job risk. Log location, date, type of rodent signs, planned controls and PPE/RPE decisions.	 2. WET / DISINFECT BEFORE DISTURBING • Do not dry sweep or vacuum. This can make contaminated particles airborne. • Do not use a high-pressure sprayer on rodent urine, droppings or contaminated surfaces until disinfected. • Soak first. Apply suitable disinfectant or fresh bleach solution until very wet; wait the product label contact time or at least 5 minutes where CDC-style guidance is used. • Remove safely. Use disposable towels/tools where practical; double-bag waste according to local/site rules.
 3. PPE / RPE AND HYGIENE • Protect skin and eyes. Cover cuts; wear waterproof gloves, eye/face protection, coveralls and suitable boots for the task. • Respiratory protection. For dusty, aerosol-generating or heavy-infestation work, use RPE selected by risk assessment - for example, fit-tested FFP3/P3/N100/P100 or powered/half-mask systems where required. • Doff carefully. Avoid touching the face; wash/decontaminate gloves before removal; wash hands after removal. • Decontaminate. Clean tools, boots and reusable PPE; bag contaminated clothing for hot wash or disposal as site rules require.	 4. AFTER THE JOB • Log credible exposures. Record who was present, what was disturbed, PPE/RPE used and any bite, scratch or splash to eyes/mouth/broken skin. • Health watch. Workers with a credible exposure should watch for symptoms for up to 8 weeks and seek same-day advice if unwell. • Do not take dust home. Wash hands/forearms; change or bag contaminated clothing; clean vehicle cab touch-points if contaminated. • Review controls. If rodents are found, arrange pest control, proofing and client notification where relevant.
Do • Treat rodent droppings, urine, nests and dead rodents as potentially contaminated. • Wet and disinfect before disturbance. • Use the right PPE/RPE for the risk and ensure RPE is fit tested where required. • Tell medical staff about rodent exposure if symptoms develop.	Do not • Do not dry sweep, vacuum, or blow out rodent-contaminated dust. • Do not jet rodent-contaminated surfaces before disinfection. • Do not handle nests/dead rodents bare-handed. • Do not ignore flu-like illness after a credible exposure.
Credible exposure for reporting: disturbing or contacting rodent droppings, urine, saliva, nests, dead rodents or contaminated dust/aerosol - especially in enclosed spaces - or a bite/scratch/splash to eyes, mouth or broken skin. Routine drain/sewer work with no rodent signs is not, by itself, a hantavirus alert.	

Symptoms, medical action and key conclusions

Most infections are linked to rodent exposure. Symptoms may appear days to weeks later; watch for up to 8 weeks after a credible exposure.

Exposure rodent urine/droppings/nests/dust	Watch period up to 8 weeks	Early illness flu-like and stomach symptoms	Emergency signs breathing, collapse, low urine
 Early symptoms to report • Fever, chills or sudden flu-like illness. • Extreme tiredness or weakness. • Muscle aches, especially back, thighs, hips or shoulders. • Headache, dizziness or feeling faint. • Stomach pain, nausea, vomiting or diarrhoea. • Red eyes, blurred vision, severe back/abdominal pain or reduced urine can point to kidney-type disease.		 Seek urgent help now • Call local emergency number (999/112/911) or go to ED/A&E if: • New or worsening cough, shortness of breath or chest tightness. • Collapse, fainting, confusion, blue lips or severe weakness. • Very reduced urine, severe kidney/back/abdominal pain. • Unusual bleeding, bruising or a rapidly worsening condition. Do not drive yourself if breathless, fainting or very unwell. Early supportive hospital care is important.	
Medical information to say or show: <i>"I work in water jetting/drainage/sewer environments. On [date] at [site] I may have inhaled or touched rodent urine, droppings, saliva, nesting material or contaminated dust/aerosol. Symptoms started on [date]. Please consider hantavirus infection (HPS/HCPS or HFRS depending on region) and contact infectious diseases/public health if clinically indicated."</i>			

Supervisor actions after a credible exposure

- Record date, site, task, rodent signs, materials disturbed, PPE/RPE and exposed workers.
- Check whether anyone has a bite, scratch, splash or symptoms and direct them to medical advice if needed.
- Review controls; arrange pest control, decontamination and client notification where relevant.
- Follow local reporting rules and occupational-health advice. If the Andes virus is suspected, follow public health advice for close contacts.

Key conclusions for WJA members

- **Hantavirus risk is uncommon**; think of it when rodent contamination is present or has been disturbed.
- **The main danger is breathing contaminated dust/aerosol or getting rodent material into the eyes, mouth or broken skin.**
- **Disinfect and wet before disturbance**; never dry sweep, vacuum or jet contaminated surfaces before disinfection.
- Seek medical advice promptly for flu-like illness after a credible exposure - especially breathlessness, chest tightness, collapse or reduced urine.
- Tell healthcare staff exactly what you did, where, and when. Early supportive care can be life-saving.

Sources used: Ulloa-Morrison et al., Critical care management of hantavirus cardiopulmonary syndrome, Journal of Critical Care 84 (2024) 154867; [CDC About Hantavirus](#); [CDC Rodent Cleanup](#); [CDC Andes Virus](#); [UKHSA Hantavirus update](#); [WHO Disease Outbreak News](#); [OSHA Hantavirus](#); PHE hantavirus sero-surveillance report, England, 2014.