ALGORITHM for LABORATORY TESTING of SUSPECTED HANTAVIRUS INFECTION SAMPLES to UNIVERSITY COLLEGE DUBLIN (UCD) NATIONAL VIRUS REFERENCE LABORATORY (NVRL) (Version 1.2 - 11/11/2026)

STEP 1: Assess Clinical Presentation

Does the patient have an acute febrile illness (≥38°C) **AND** one or more of the following: muscle aches, chills, headache, gastrointestinal (e.g. nausea, vomiting, diarrhoea, abdominal pain) or respiratory symptoms (e.g. cough, shortness of breath, chest pain, difficulty breathing) or renal manifestations (proteinuria, haematuria, polyuria, acute kidney injury) or haemorrhagic manifestations (petechiae, haemorrhage, or DIC).

AND

STEP 2: Assess Epidemiological Risk

Within the previous 6 weeks, has the patient had an epidemiological exposure compatible with hantavirus infection, including one or more of the following: exposure to a rodent-infested environment or direct/indirect contact with rodents or rodent excreta; relevant wildlife or environmental exposure in a setting where hantavirus exposure may plausibly have occurred; travel to, or residence in, an area in which relevant hantavirus transmission is known or suspected; **OR** exposure associated with a known or suspected hantavirus outbreak or incident.

In an outbreak involving or suspected to involve Andes virus, relevant close or prolonged contact with a symptomatic case should also be considered. (**see Box A**)

IF **YES**, (i.e. **does meet** case definition)

IF **NO**, (i.e. **does not meet** case definition)

Contact the clinical team at the NVRL for advice on appropriate specimen collection. **Telephone:** (**Option 1** – Normal Working Hours) **01-716 4401** OR (**Option 2** – Out of Hours) **01-716 4050**.

Samples should be transported as **Category B substances in UN 3373 packaging**.

No *Hantavirus* specific investigations required (consider alternative diagnoses).

Primary specimens: Serum or plasma (suitable for PCR (*Hantavirus* RNA detection); and serology (IgM/IgG antibody testing)).

Additional specimen: Urine (may assist with assessment of viral shedding; infectivity monitoring)

(Optional: guided by NVRL advice)

Testing may include: PCR for hantavirus RNA; Serology (IgM/IgG antibodies).

Testing strategy may evolve depending on emerging evidence.

***HANTAVIRUS* Detected**

***HANTAVIRUS* NOT Detected**

Positive result phoned to requesting clinician and Public Health.

Negative result phoned to requesting clinician* (**see Box B**).

Final report issued by NVRL.

B: Additional considerations

Repeat testing should be performed in **patients with a high index of suspicion of *Hantavirus*** infection with an initial negative result from primary/additional specimen.

A: Important Note

In the context of an **outbreak involving or suspected to involve Andes virus, person-to-person transmission should be considered**. Close or prolonged contact with a symptomatic case may therefore constitute a significant epidemiological exposure and should be assessed as part of the public health risk assessment.

HSE Public Health: National Health Protection Office
FSS Sláinte Poiblí: An Oifig Náisiúnta um Chosaint Sláinte