



**ALGORITHM for LABORATORY TESTING of SUSPECTED HANTAVIRUS INFECTION SAMPLES to UNIVERSITY COLLEGE DUBLIN (UCD) NATIONAL VIRUS REFERENCE LABORATORY (NVRL)**  
(Version 1.0 - 08/05/2026)



**STEP 1: Assess Clinical Presentation**

Does the patient have an acute febrile illness ( $\geq 38^{\circ}\text{C}$ ) **AND** one or more of the following: Severe respiratory illness (e.g. pneumonia, hypoxia, ARDS); Renal impairment (e.g. acute kidney injury, reduced urine output); Haemodynamic instability (e.g. hypotension, shock); Thrombocytopenia or haemorrhagic features

**STEP 2: Assess Epidemiological Risk**

**Within the previous 6 weeks, has the patient:** Travelled on a **known or suspected outbreak-associated conveyance or setting** (e.g. cruise vessel), **OR** Had **close contact with a confirmed or suspected case**, **OR** Had exposure to: Rodent-infested environment; Wildlife or environmental exposure (e.g. remote island settings); Areas with known hantavirus circulation. (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**

Provisional Positive result phoned to requesting clinician and Public Health.

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

Refer sample to European Union Reference Laboratory (EURL-PH-ERZV) for confirmation of diagnosis of *Hantavirus*.

**Final report issued**

**A: Important Note**  
In the context of an outbreak, **human-to-human transmission cannot be excluded**. Therefore, contact with a symptomatic individual should be considered a significant epidemiological risk.

**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.