

| | |
|--------------|--|
| DATE: | 15 May 2026 |
| TO: | All Healthcare Providers |
| FROM: | Alberta Precision Laboratories (APL) – Public Health Laboratory (ProvLab) |
| RE: | Testing for Hantavirus (Sin Nombre Virus versus Andes Virus) in Alberta |

PLEASE POST OR DISTRIBUTE AS WIDELY AS APPROPRIATE

Key Message

- In the current context, clinicians should be aware of 2 distinct species of hantavirus: (1) Sin Nombre Virus (SNV); and (2) Andes virus (ANDV). Both viruses can result in hantavirus cardiopulmonary syndrome (HCPS), the most severe form of infection that requires hospital admission and generally intensive-care unit admission.
- SNV is endemic to Alberta and causes 3-4 cases of confirmed SNV-associated HCPS annually (locally acquired). ANDV is not endemic to Canada (including Alberta).
- The epidemiology, transmission risk factors, and laboratory testing approach SNV and ANDV differ.
- Screening for hantavirus infection in asymptomatic individuals is not performed unless requested by Public Health authorities in rare circumstances.
- All testing requests for hantavirus should include symptoms, date of onset of illness, epidemiologic risk factors, travel history, and exposure history.

The approach to hantavirus testing is determined by the species of virus that is being investigated:

| | Sin Nombre Virus (SNV) (endemic to Alberta) | Andes Virus (ANDV) (not endemic to Canada) **obtain ProvLab MVOC approval PRIOR to sample collection** |
|--|--|--|
| Primary diagnostic test | Hantavirus serology | Hantavirus NAT / PCR |
| Specimen | Gold top (SST) tube <ul style="list-style-type: none"> • 5 mL blood (adult) • 1-3 mL blood (child) | Whole blood (lavender) tube <ul style="list-style-type: none"> • 5 mL blood (adult) • 1-3 mL blood (child) |
| Other testing that can be carried out: | Serum hantavirus NAT/PCR Bronchoalveolar lavage hantavirus NAT/PCR..or endotracheal aspirate NAT/PCR | Hantavirus serology (strongly recommended) Gold top (SST) tube <ul style="list-style-type: none"> • 5 mL blood (adult) • 1-3 mL blood (child) |

Abbreviations: NAT – nucleic acid amplification test; PCR – polymerase chain reaction; ProvLab MVOC – Public Health Laboratory Microbiologist/Virologist-on-call; SST – serum separator tube.



Background

- The principal hantavirus species endemic to Alberta and Canada is Sin Nombre virus (SNV). SNV infection is associated with exposure to infected rodents and their excreta, particularly deer mice (*Peromyscus maniculatus*). *SNV is not reported to be transmitted from person-to-person.*
- Recent international reports involving Andes virus (ANDV) associated with cruise ship travel (see report from the World Health Organisation [here](#)) have increased awareness of imported hantavirus infections. ANDV is epidemiologically distinct from SNV and has been associated with occasional-limited person-to-person transmission in close contact settings in South America. The risk of ANDV infection in Alberta remains very low.
- The approach to testing for SNV or ANDV differs based on currently available data and is outlined below:

Recommended hantavirus evaluation pathways

| Feature | SNV Pathway | Suspected Imported ANDV Rare/Special Pathway |
|-------------------------------------|---|--|
| Epidemiology | Endemic in western Canada including Alberta. | Not endemic in Canada. |
| Typical exposure history | Rodent exposure or exposure to rodent droppings/excreta. | Recent travel to endemic South American regions, cruise ship outbreak exposure, or close contact with <i>confirmed</i> Andes virus case. |
| Person-to-person transmission | Not reported to occur. | Limited person-to-person transmission is reported. |
| Clinical presentation | Febrile illness with pulmonary involvement, thrombocytopaenia, capillary leak, and respiratory compromise. | Similar clinical syndrome to SNV; <i>epidemiologic history critical.</i> |
| Patients appropriate for testing | Moderately-to-severely ill patients likely requiring hospitalisation. | Moderately-to-severely ill patients likely requiring hospitalisation. Asymptomatic testing may be indicated as guided by Public Health. |
| Principal diagnostic approach | <ul style="list-style-type: none"> • Serology is the <u>primary</u> diagnostic test. • PCR of lower respiratory tract specimens can be conducted. | <ul style="list-style-type: none"> • Consult ProvLab MVOC prior to collection. • Whole blood PCR is the primary diagnostic test. • Serology and PCR of lower respiratory tract specimens can be conducted. |
| Asymptomatic screening | Not performed or recommended (including contacts). | Not performed except under Public Health consultation |
| Infection prevention considerations | <ul style="list-style-type: none"> • Routine precautions once other communicable viruses have been ruled out. • If questions, consult with site-based infection prevention and control teams. | <ul style="list-style-type: none"> • Urgent acute consultation with site-based infection prevention and control teams recommended. |
| Testing location | Referred to the National Microbiology Laboratory (PHAC, Winnipeg, MB). | Referred to the National Microbiology Laboratory (PHAC, Winnipeg, MB). |

Abbreviations: PHAC – Public Health Agency of Canada; ProvLab MVOC – Public Health Laboratory Microbiologist/Virologist-on-call.



Asymptomatic testing

SNV: Asymptomatic testing for SNV (including patient contacts) is not recommended, and requests will likely not be processed.

ANDV: Asymptomatic testing is considered in rare circumstances with consultation with Public Health.

Actions Required

- Patients without epidemiologic links for ANDV should be evaluated using the pathway for SNV.
- If concerns for Andes virus infection, consultation with the ProvLab MVOG is required **before specimens are collected**.
- Testing for hantavirus infection should only be considered in patients who are moderately-to-severely unwell with compatible epidemiologic risk factors, including recent exposure to rodent droppings, recent travel to endemic regions, exposure associated with recognised outbreaks, or close contact with confirmed cases where applicable.
- Asymptomatic screening for SNV (or SNV-case contacts) is not indicated.
- ANDV asymptomatic testing is only done in consultation with Public Health authorities.
- Requests without relevant symptoms and exposure/epidemiologic history may not be processed. All requests are reviewed by the MVOG.
- Clinicians with questions regarding test appropriateness are encouraged to discuss cases with the Public Health Laboratory MVOG.

Further information

- Further details regarding hantavirus testing in Alberta are available through the Alberta Precision Laboratories [Test Directory](#).
- Clinicians can contact the Provincial Laboratory Microbiologist/Virologist-on-call can be contacted at 403-944-1110 (Calgary) or 780-407-8822 (Edmonton) with queries or concerns.

Questions/concerns

- Dr. Jamil Kanji, Medical Microbiologist, APL – Public Health Laboratory, jamil.kanji@albertahealthservices.ca

Approved by

- Dr. Graham Tipples, Medical and Scientific Director, APL – Public Health Laboratory