**Ontario Hantavirus** **Investigation Tool**

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|  **Legend** | **for interview with case ♦ System-Mandatory ❖ Required Personal Health information** |

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| **Cover Sheet***Note that this page can be autogenerated in iPHIS* |
| Date Printed: YYYY-MM-DD Bring Forward Date: YYYY-MM-DD iPHIS Client ID #:  Enter number **♦** Investigator:  **Enter name \_ \_****♦** Branch Office:  Enter office **♦** Reported Date: YYYY-MM-DD **❖** Diagnosing Health Unit:  Enter health unit **♦** Disease: **HANTAVIRUS PULMONARY SYNDROME****♦** Is this an outbreak-associated case? Other, please specify: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_[ ]  Yes, *OB #* ####-####-### [ ]  No, *link to* **OB # 0000-2005-017** *in iPHIS*Is the client in a high-risk occupation/environment? [ ]  Yes, specify: Specify [ ]  No |  **♦** Client Name:  **Enter name \_ \_**Alias:  **Enter alias \_ \_** |
|  **♦** Gender: **Select an option** |  **♦** Age: **Age**  |
|  **♦** DOB:YYYY-MM-DD  Address:  **Enter address \_**  **Enter address \_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_** Tel. 1:  **###-###-####** Type: [ ]  Home [ ]  Mobile [ ]  Work [ ]  **Other, specify** Tel. 2:  **###-###-####** Type: [ ]  Home [ ]  Mobile [ ]  Work [ ]  **Other, specify** Email 1: **Enter email address \_ \_** Email 2:  **Enter email address \_ \_** |
| Is the client homeless? [ ]  Yes [ ]  No New Address:  **Enter address \_** **♦** Language:  **Specify \_ \_**Translation required*?* [ ]  Yes [ ]  No**Proxy respondent** Name:  **Enter name \_ \_**[ ]  Parent/Guardian [ ]  Spouse/Partner [ ]  Other  **Specify \_ \_** | **♦** Physician’s Name: **Enter name \_ \_****♦** Role**:** [ ]  Attending Physician [ ]  Family Physician [ ]  Specialist [ ]  Walk-In Physician [ ]  Other [ ]  Unknown**OPTIONAL**Additional Physician’s Name: **Enter name \_** Address:  **Enter address \_**  Tel:  **###-###-####**  Fax:  **###-###-####** Role:  **Enter role \_ \_** |

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| **Verification of Client’s Identity & Notice of Collection** |
| Client’s identity verified? [ ]  Yes, *specify*: [ ]  DOB [ ]  Postal Code [ ]  Physician  [ ]  No  |
| **Notice of Collection***Please consult with local privacy and legal counsel about PHU-specific Notice of Collection requirements under* *PHIPA s. 16*. *Insert Notice of Collection, as necessary.* |
| **Record of File** |
| **♦ Responsible Health Unit** | **Date** | **♦ Investigator’s Name** | **Investigator’s Signature** | **Investigator’s Initials** | **Designation** |
| Specify | **❖**Investigation Start DateYYYY-MM-DD | Specify | Specify | Specify | [ ]  PHI [ ]  PHN[ ]  Other \_\_\_\_\_\_\_  |
| Specify | Assignment DateYYYY-MM-DD | Specify | Specify | Specify | [ ]  PHI [ ]  PHN[ ]  Other \_\_\_\_\_\_\_  |

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| **Call Log Details**  |
|  | **Date** | **Start Time** | **Type of Call** | **Call To/From** | **Outcome****(contact made, v/m, text, email, no answer, etc.)** | **Investigator’s initials** |
| Call 1 | YYYY-MM-DD |  | [ ]  Outgoing[ ]  Incoming |  |  |  |  |
| Call 2 | YYYY-MM-DD |  | [ ]  Outgoing[ ]  Incoming |  |  |  |  |
| Call 3 | YYYY-MM-DD |  | [ ]  Outgoing[ ]  Incoming |  |  |  |  |
| Call 4 | YYYY-MM-DD |  | [ ]  Outgoing[ ]  Incoming |  |  |  |  |
| Call 5 | YYYY-MM-DD |  | [ ]  Outgoing[ ]  Incoming |  |  |  |  |
| Date letter sent: YYYY-MM-DD |

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| **Case Details** |
| **♦ Aetiologic Agent** | Select the Aetiologic Agent |
| **♦ Classification** | [ ]  Confirmed [ ]  Does Not Meet Definition  | **♦ Classification Date**  | YYYY-MM-DD |
| **♦ Outbreak Case Classification** | [ ]  Confirmed [ ]  Probable [ ]  Does Not Meet Definition  | **♦ Outbreak Classification Date** | YYYY-MM-DD |
| **♦ Disposition** | [ ]  Complete [ ]  Closed- Duplicate-Do Not Use [ ]  Entered In Error [ ]  Lost to Follow Up [ ]  Does Not Meet Definition [ ]  Untraceable  | **♦ Disposition Date**  | YYYY-MM-DD |
| **♦ Status** | [ ]  Closed  | Initial here | **♦ Status Date** | YYYY-MM-DD |
| [ ]  Open (re-opened)  | Initial here | **♦ Status Date** | YYYY-MM-DD |
| [ ]  Closed  | Initial here | **♦ Status Date** | YYYY-MM-DD |
| **♦ Priority** | ☐ High | ☐ Medium ☐ Low |  *(At health unit’s discretion)* |

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| **Symptoms**  |
| ***Incubation period*** *is not completely defined, it can range from 1 to 6 weeks, commonly around 2 weeks.* ***Communicability****: direct person-to-person transmission is rare and has not been documented in North America.*  |
| ***Specimen collection date:*** YYYY-MM-DD  |
| **♦ Symptom***Ensure that symptoms in* ***bold font*** *are asked* | **♦ Response**  | **❖ Use as Onset***(choose one)* | **❖ Onset Date**YYYY-MM-DD | **Onset Time**24-HR ClockHH:MM*(discretionary)* | **❖ Recovery Date**YYYY-MM-DD*(one date is sufficient)* |
| **Yes** | **No** | **Unknown** | **Not Asked** | **Refused** |
| Asymptomatic | [ ]  | [ ]  | *Enter zero (0) for the duration days. DO NOT enter an Onset Date and DO NOT check the ‘Use as Onset’ box* |
| **Abdominal pain** | [ ]  | [ ]  | [ ]  | [ ]  | [ ]  | [ ]  | YYYY-MM-DD | HH:MM | YYYY-MM-DD |
| Back pain | [ ]  | [ ]  | [ ]  | [ ]  | [ ]  | [ ]  | YYYY-MM-DD | HH:MM | YYYY-MM-DD |
| Blood pressure, low [hypotension] | [ ]  | [ ]  | [ ]  | [ ]  | [ ]  | [ ]  | YYYY-MM-DD | HH:MM | YYYY-MM-DD |
| Breathing, labored [dyspnea] | [ ]  | [ ]  | [ ]  | [ ]  | [ ]  | [ ]  | YYYY-MM-DD | HH:MM | YYYY-MM-DD |
| Chills | [ ]  | [ ]  | [ ]  | [ ]  | [ ]  | [ ]  | YYYY-MM-DD | HH:MM | YYYY-MM-DD |
| Cough | [ ]  | [ ]  | [ ]  | [ ]  | [ ]  | [ ]  | YYYY-MM-DD | HH:MM | YYYY-MM-DD |
| Diarrhea | [ ]  | [ ]  | [ ]  | [ ]  | [ ]  | [ ]  | YYYY-MM-DD | HH:MM | YYYY-MM-DD |
| Dizziness | [ ]  | [ ]  | [ ]  | [ ]  | [ ]  | [ ]  | YYYY-MM-DD | HH:MM | YYYY-MM-DD |
| **Fatigue** | [ ]  | [ ]  | [ ]  | [ ]  | [ ]  | [ ]  | YYYY-MM-DD | HH:MM | YYYY-MM-DD |
| **Fever** (>38.3°C (101°F) oral) | [ ]  | [ ]  | [ ]  | [ ]  | [ ]  | [ ]  | YYYY-MM-DD | HH:MM | YYYY-MM-DD |
| **Headache** | [ ]  | [ ]  | [ ]  | [ ]  | [ ]  | [ ]  | YYYY-MM-DD | HH:MM | YYYY-MM-DD |
| Malaise[general unwell feeling] | [ ]  | [ ]  | [ ]  | [ ]  | [ ]  | [ ]  | YYYY-MM-DD | HH:MM | YYYY-MM-DD |
| Myalgia [muscle pain] | [ ]  | [ ]  | [ ]  | [ ]  | [ ]  | [ ]  | YYYY-MM-DD | HH:MM | YYYY-MM-DD |
| **Nausea** | [ ]  | [ ]  | [ ]  | [ ]  | [ ]  | [ ]  | YYYY-MM-DD | HH:MM | YYYY-MM-DD |
| **Respiratory distress** | [ ]  | [ ]  | [ ]  | [ ]  | [ ]  | [ ]  | YYYY-MM-DD | HH:MM | YYYY-MM-DD |
| **Shock** | [ ]  | [ ]  | [ ]  | [ ]  | [ ]  | [ ]  | YYYY-MM-DD | HH:MM | YYYY-MM-DD |
| Shortness of breath | [ ]  | [ ]  | [ ]  | [ ]  | [ ]  | [ ]  | YYYY-MM-DD | HH:MM | YYYY-MM-DD |
| Sweating, at night | [ ]  | [ ]  | [ ]  | [ ]  | [ ]  | [ ]  | YYYY-MM-DD | HH:MM | YYYY-MM-DD |
| Vomiting | [ ]  | [ ]  | [ ]  | [ ]  | [ ]  | [ ]  | YYYY-MM-DD | HH:MM | YYYY-MM-DD |
| Other, *specify*  | [ ]  | [ ]  | [ ]  | [ ]  | [ ]  | [ ]  | YYYY-MM-DD | HH:MM | YYYY-MM-DD |
| ***Note: This list is not comprehensive. There are additional symptoms listed in iPHIS.*** |

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| ♦ **Complications** |
|  [ ]  None [ ]  Other (e.g., pulmonary edema, elevated hematocrit, hypoalbuminemia, thrombocytopenia) [ ]  Unknown |

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| **Hospitalization & Treatment** *Mandatory in iPHIS only if admitted to hospital* |
| Did you go to an emergency room?  | [ ]  Yes [ ]  No  | If yes, name of hospital: Enter nameDate(s): YYYY-MM-DD |
| **♦** Were you admitted to hospital as a result of your illness (not including stay in the emergency room)? | [ ]  Yes [ ]  No [ ]  Don’t recall  | If yes, name of hospital: Enter name ♦ Date of admission: YYYY-MM-DD ❖ Date of discharge: YYYY-MM-DD[ ]  Unknown discharge date |
| *→ For iPHIS data entry – if the case is hospitalized enter information under Interventions.* |
| Were you prescribed antibiotics or medication for your illness?  | [ ]  Yes [ ]  No[ ]  Don’t recall  | If yes, Medication: Enter name Start date: YYYY-MM-DDEnd date: YYYY-MM-DDRoute of administration: Enter route Dosage: Enter dosage  |
| Did you take over-the-counter medication?  | [ ]  Yes [ ]  No[ ]  Don’t recall  |  If yes, specify  |
| *Treatment information can be entered in iPHIS under* ***Cases > Case > Rx/Treatments>Treatment*** *as per current iPHIS User Guide* |

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| **Outcome** *(complete for cases only)**Mandatory in iPHIS only if Outcome is Fatal* |
| **Outcome** | [ ]  Unknown [ ]  ♦ Fatal [ ]  Ill [ ]  Pending [ ]  Residual effects [ ]  Recovered | ♦ **Cause(s) of** **Death?***If fatal, complete disposition type and facility name in iPHIS* | Specify |
| *If fatal, complete section below under Outcome* |
| ♦ **Type of Death**  | [ ]  Reportable disease contributed to but was not the underlying cause of death[ ]  Reportable disease was the underlying cause of death [ ]  Reportable disease was unrelated to the cause of death[ ]  Unknown |
| **Outcome Date**  | YYYY-MM-DD | **Date Accurate**  | [ ]  Yes Specify source (e.g. death certificate)[ ]  No  |

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| **Medical Risk Factors** | **❖ Response** | **Details***iPHIS character limit: 50.* |
| **Yes** | **No** | **Unknown** | **Not asked** |
| **❖** Immunocompromised(e.g., by medication/disease) | [ ]  | [ ]  | [ ]  | [ ]  | If yes, specify |
| **❖** Previous history of Hantavirus infection | [ ]  | [ ]  | [ ]  | [ ]  | If yes, specify |
| **❖** Other (specify) | [ ]  | [ ]  | [ ]  | [ ]  | If yes, specify |
| **❖** Unknown | [ ]  | [ ]  | *→ For iPHIS data entry – check Yes for Unknown if all other Medical Risk Factors are No or Unknown.* |
| **Date of Onset, Age and Gender***Complete this section if submission of pages 7-8 to Public Health Ontario is required* |
| Date of Onset: | YYYY-MM-DD | Age: | **Age**  | Gender: | **Select an option** |

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| **Incubation Period** |
| *Enter onset date and time, using this as day 0, then count back to determine the incubation period.*  |
|   - 6 weeks - 1 week onset Select a date Select a date Select a date & time  |

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| **Behavioural Social Risk Factors in the 6 weeks prior to onset of illness** | **❖ Response** | **Details**(e.g., Brand name, purchase/consumption location, product details, date of exposure)*iPHIS character limit: 50.*  |
| **Yes** | **No** | **Unknown** | **Not asked** |
| **❖** Camping, hiking, working or other activities in wooded areas | [ ]  | [ ]  | [ ]  | [ ]  | Specify |
| **❖** Contact with rodents | [ ]  | [ ]  | [ ]  | [ ]  | Specify |
| **❖** Lived in endemic area (specify province or country) | [ ]  | [ ]  | [ ]  | [ ]  | Specify |
| **❖** Stayed at a cottage/hunt camp | [ ]  | [ ]  | [ ]  | [ ]  | Specify |
| **❖** Sweeping/cleaning up mouse droppings | [ ]  | [ ]  | [ ]  | [ ]  | Specify |
| **❖** Travel to endemic area in the last 6 weeks (specify province or country) | [ ]  | [ ]  | [ ]  | [ ]  | Specify |
| *Cases of hantavirus have been reported from numerous countries in North and South America, including from Canada, the United States, Argentina, Chile, Uraguay, Paraguay, Brazil and Bolivia. Cases have also been reported from China, North and South Korea, Russia, Europe and Asia.*  |
| **❖** Occupational – animal or animal product handler | [ ]  | [ ]  | [ ]  | [ ]  | Specify |
| **❖** Occupational – laboratory worker | [ ]  | [ ]  | [ ]  | [ ]  | Specify |
| **❖** Occupational – pet industry worker | [ ]  | [ ]  | [ ]  | [ ]  | Specify |
| **❖** Other (specify) | [ ]  | [ ]  | [ ]  | [ ]  | Specify |
| **❖** Unknown | [ ]  | [ ]  | *→ For iPHIS data entry – check Yes for Unknown if all other Behavioural Risk Factors are No or Unknown.* |
| **♦** CreateExposures *Identify Exposures to be entered in iPHIS.* *→ For iPHIS data entry – record details of exposure(s) in* [*iPHIS Case Exposure Form*](https://www.publichealthontario.ca/-/media/Documents/I/2015/investigation-tool-iphis-case-exposure-form.docx?la=en&rev=d8fb16a37da3475fb46fba02e9505f0f&sc_lang=en&hash=47E3148895EB5991B7766C95B3CC96C5) *as required.* |

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| **Contact Management**  |
| *\*\*NOTE: no management of contacts unless others are identified as having been exposed to the same source as the case.*Manage symptomatic and exposed contacts as cases and complete a separate OIT for each individual. Recommend that symptomatic and exposed individuals seek confirmatory laboratory testing. Advise **asymptomatic** contacts to monitor for signs and symptoms of Hantavirus and to seek immediate medical assessment if these develop. Advise asymptomatic contacts to notify public health if symptoms develop within 60 days of exposure and to inform healthcare provider of exposure to Hantavirus. |
| **Contact 1** |
|  Name |  | Status | [ ]  Symptomatic [ ]  Asymptomatic  |
| If symptomatic: CaseID: |  | **♦ Classification** | [ ]  Confirmed [ ]  Probable [ ]  DNM  |
| Symptom onset date | Select a date | Occupation |  |
| If asymptomatic: advised to monitor for signs and symptoms | [ ]  Yes [ ]  No [ ]  N/A  |
|  Contact information(phone, address, email)  | Enter contact information |
| Notes (specify nature and duration of exposure) | Enter notes |
| **Contact 2** |
|  Name |  | Status | [ ]  Symptomatic [ ]  Asymptomatic  |
| If symptomatic: CaseID: |  | **♦ Classification** | [ ]  Confirmed [ ]  Probable [ ]  DNM  |
| Symptom onset date | Select a date | Occupation |  |
| If asymptomatic: advised to monitor for signs and symptoms | [ ]  Yes [ ]  No [ ]  N/A  |
|  Contact information(phone, address, email)  | Enter contact information |
| Notes (specify nature and duration of exposure) | Enter notes |

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| **Education/Counselling** *Discuss the relevant sections with case* |
| **Hand Hygiene** | [ ]  | Wash hands with soap and water after handling animals (including rodents) or after handling/contacting their bedding, litter or environment. |
| [ ]  | Wear gloves when cleaning rodent-contaminated areas and perform hand hygiene afterwards. |
| **Recovery** | [ ]  | If you continue to feel unwell, new symptoms appear, or symptoms change – seek medical attention. |
| **Animals** | [ ] [ ] [ ]  | Eliminate food sources available to rodents (e.g., store food for humans and animals in closed containers after opening). Clean up any food spills promptly. |
| Prevent rodent entry – seal holes, limit nesting sites, and use rodent traps/rodenticides as appropriate.Avoid contact with wild rodents, and avoid direct contact with areas where there is evidence of rodents. |
| **Environmental cleaning** | [ ] [ ] [ ]  | Wear a respirator when cleaning previously unoccupied areas to avoid inhalation of dustAvoid sweeping or vacuuming areas contaminated by rodents. Clean using a wet mop or damp paper towel to avoid aerosolization of dust. Disinfect rodent contaminated areas after cleaning – use a disinfectant solution (e.g., a 1:10 dilution of bleach and water) for an appropriate contact time, as per manufacturer instructions for use |

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| **Thank you** |
| Thank you for your time. This information will be used to help prevent future cases of Hantavirus Pulmonary Syndrome. Please note that another investigator may contact you again to ask additional questions if it is identified that there is a possibility that you are included in an outbreak. |

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| **❖ Intervention Type** | **Intervention implemented (check all that apply)** | **Investigator’s initials** | ♦ **Start Date****YYYY-MM-DD** | **❖ End Date****YYYY-MM-DD** |
| Counselling | [ ]  |  | **YYYY-MM-DD** | **YYYY-MM-DD** |
| Education  | [ ]  |  | YYYY-MM-DD | YYYY-MM-DD |
| ER visit  | [ ]  |  | YYYY-MM-DD | YYYY-MM-DD |
| Hospitalization | [ ]  |  | YYYY-MM-DD | YYYY-MM-DD |
| Letter - Client | [ ]  |  | YYYY-MM-DD | YYYY-MM-DD |
| Letter - Physician | [ ]  |  | YYYY-MM-DD | YYYY-MM-DD |
| Other (i.e., contacts assessed, PHI/PHN contact information) | [ ]  |  | YYYY-MM-DD | YYYY-MM-DD |
| *→**For iPHIS data entry – enter information under* ***Cases > Case > Interventions.*** |

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| **Progress Notes** |
| **Enter notes** |

If you have any comments or feedback regarding this Investigation Tool, please email us at ezvbd@oahpp.ca.