

DATE:	3 February 2025
TO:	All Healthcare Providers
FROM:	Alberta Precision Laboratories (APL) – Public Health Laboratory
RE:	H5N1 Avian Influenza Laboratory Testing

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Key Message

- If H5N1 avian influenza is suspected in a patient, contact the Zone Medical Officer of Health (MOH) and the APL – Public Health Laboratory Microbiologist/Virologist on-call (MVOC) to facilitate testing prior to submitting specimens.
- H5N1 influenza is circulating in Alberta poultry flocks, wild birds, and other animals, and poses an infection risk to humans in close contact with infected animals.
- In patients with acute viral respiratory illness or influenza-like illness and exposure to animals with suspected or confirmed H5N1 infection in the preceding 10 days, consider testing for H5N1 influenza.

Background

- The H5N1 clade causing a global outbreak in birds and other animals (clade 2.3.4.4b) has been transmitted to humans in several instances with infections ranging from asymptomatic/mild to severe.
- Routine influenza nucleic acid tests (NATs) used in Alberta can detect avian influenza but do not differentiate it from seasonal influenza strains without further testing.
- Currently the APL – Public Health Laboratory subtypes all influenza A positive specimens collected from patients in the province, performing background surveillance for seasonal and avian influenza strains.
- Contacting the APL – Public Health Laboratory MVOC for suspect H5N1 cases ensures that the correct specimens are collected, the right tests are performed, and appropriate biosafety precautions are taken in the laboratory.

Actions Required

- The Zone MOH and the APL – Public Health Laboratory MVOC (Edmonton 780-407-8822, Calgary 403-944-1110) **must** be contacted prior to submitting specimens to the laboratory if H5N1 avian influenza is suspected in a patient.
- If a patient who has been informed that they were exposed to H5N1 influenza presents for care, contact the Zone MOH and MVOC to determine the next steps and ensure the patient is isolated according to the IPC guidelines for avian influenza ([IPC Diseases and Conditions Table Recommendations for Management of Patients Acute Care](#)).
- The MVOC will advise on specimens to be collected:
 - Nasopharyngeal (NP) swab should be collected in all cases.
 - Throat swab should be collected in all cases.
 - Conjunctival swab should be collected for patients with conjunctivitis.



- Collect all swabs in Universal Transport Medium (UTM; red- or white-capped tubes with pink liquid medium) as is done for routine respiratory virus testing.
- If appropriate, endotracheal tube aspirates, bronchoalveolar lavages, and bronchial washes can be collected in sterile containers as per routine.
- Collect samples using precautions as per [Infection Prevention and Control recommendations for COVID-19](#) (page 2, Laboratory testing for COVID-19, under NP swab or throat swab for a symptomatic individual).
- Samples approved for avian influenza testing by the Zone MOH and MVOC should be submitted to the laboratory with the following documentation with each sample labelled with the patient's name and other identifiers, collection time/date, and specimen source:
 - **For paper requisitions**, use the COVID-19 and Other Respiratory Viruses Requisition (<https://www.albertahealthservices.ca/frm-21701.pdf>), select "COVID-19 and Respiratory Pathogen Panel (RPP)," "Outbreak investigation" under "Respiratory Pathogen Panel (RPP) Criteria," appropriate clinical history and admission status, and write "Suspect H5N1 avian influenza – approved by MVOC" on the requisition.
 - **In EPIC/Connect Care**, use the Emerging Respiratory Pathogen order:
 - Select "Avian Influenza."
 - Keep all four orders selected.
 - Write "Suspect H5N1 avian influenza – approved by MVOC" in the additional clinical/information field.
 - Questions only need to be answered in one of the four auto-selected orders.
 - For additional specimens (eg, throat swab, conjunctival swab), additional sets of orders must be placed with the correct specimen source indicated in each order:
 - Change the specimen source to "Throat" for throat swabs.
 - Change the specimen source to "Other, Non-validated" for conjunctival swabs.

Questions/concerns

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Approved by

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