

MLS Laboratory Update: Accelerated Subtyping for Influenza A in Hospitalized Patients

JANUARY 23, 2025

Purpose of this Message:

Inform partner laboratories of updated guidance from CDC to accelerate subtyping of influenza A in hospitalized patients with the goal of rapid identification of potential cases of avian influenza A(H5N1). A paired MDH Health Alert has been sent to clinicians.

Action Item:

- Review the [CDC HAN: Accelerated Subtyping of Influenza A in Hospitalized Patients](https://www.cdc.gov/han/2025/han00520.html) (<https://www.cdc.gov/han/2025/han00520.html>). This guidance is meant to increase the speed of testing and is not a change in testing requirements and does not indicate an increased risk for avian influenza A(H5N1) infections in humans.
- Perform subtyping ideally within 24 hours of hospital admission for hospitalized patients who test positive for influenza A, using in-house subtyping or a commercial clinical laboratory, if available. Specimens from hospitalized patients that are not able to be subtyped in-house or through a commercial clinical laboratory should be submitted to the Minnesota Department of Health Public Health Laboratory (MDH-PHL) within 24 hours of receiving results: [Specimen Collection and Testing for Seasonal Influenza](https://www.health.state.mn.us/diseases/flu/hcp/lab.html) (<https://www.health.state.mn.us/diseases/flu/hcp/lab.html>).
- Be aware that seasonal influenza is widely circulating in Minnesota and the most likely cause of influenza-like illness. The risk of avian influenza A(H5N1) to the general public is low, it is an occupational risk and typically limited to people who have direct contact with infected animals.
- Report any influenza A(H5N1) suspected cases, including any positive H5 subtyped results, to the Minnesota Department of Health (MDH) at 651-201-5414 or 1-877-676-5414 while patients are still present to ensure proper specimen collection and submission.

Laboratory Testing for Hospitalized Patients:

- CDC released a HAN January 16th, 2025, recommending accelerated subtyping of influenza A specimens among hospitalized patients who test positive for influenza A. This guidance does not reflect an increased concern for or risk of human cases of influenza A(H5N1). Acceleration of subtyping specifically aims to prevent delays in identifying human infections with A(H5N1) viruses, support optimal patient care, and facilitate timely infection control and case investigation. Subtyping for hospitalized patients can be performed in-house, where available, or sent to a commercial clinical laboratory.
- Subtyping of influenza A positive patients should ideally occur within 24 hours of hospital admission. Influenza A positive specimens that can be subtyped to H3 or 2009H1N1 do not need to be forwarded to MDH-PHL or a commercial laboratory for further characterization.

- In MN, all hospitalized patients who test positive for influenza A that are not able to be subtyped should have a specimen submitted to MDH-PHL.
- When assessing a patient or obtaining a specimen from a patient who has symptoms and a history of exposure to sick birds or animals:
 - Use infection control as recommended for COVID-19, including N95 respirators or higher, eye protection, gowns, and gloves. [Guidance for Infection Control for Novel Influenza A \(https://www.cdc.gov/bird-flu/hcp/novel-flu-infection-control/\)](https://www.cdc.gov/bird-flu/hcp/novel-flu-infection-control/).
 - Collect preferred specimens including an upper respiratory swab, generally a nasopharyngeal swab. If conjunctivitis is present, a conjunctival swab should also be submitted. Swabs must be acceptable for viral specimens and should be made of a synthetic material (e.g., Dacron) with a plastic or aluminum shaft, and should be put into tubes containing viral or universal transport media. [MDH Infectious Disease Lab Test Catalog \(https://labinventory.web.health.state.mn.us/#/html?id=907\)](https://labinventory.web.health.state.mn.us/#/html?id=907).
 - If submitted to MDH-PHL, testing will be performed at the MDH-PHL, with further testing, if needed, at CDC.

Background:

Avian influenza A viruses circulate naturally among wild aquatic birds worldwide and have been the cause of outbreaks in poultry, dairy cattle, and other mammals in the United States (US). Since 2022, H5N1 avian influenza viruses caused infections in domestic poultry, dairy cattle, and sporadic infections in mammals in many countries, including the US. Following the first detection of the virus in Minnesota (MN) in the spring of 2022, commercial poultry operations, backyard poultry flocks, dairy cattle herds, goats exposed to positive backyard poultry, companion animals, and wild birds and mammals in MN have tested positive for avian influenza A(H5N1).

The risk to the general public remains low, and the risk of infection is limited to people in direct contact with infected animals or their environment. Those working with infected birds and animals should take precautions to mitigate their risk, including wearing personal protective equipment (PPE) when working with infected animals. Milk of infected cattle has been shown to have high levels of virus; raw milk should not be consumed. FDA testing has shown that pasteurization inactivates H5N1 virus in milk, and there is no risk from the commercial milk supply.

State and federal agencies are collaborating with the poultry and dairy industries to minimize the impact of avian influenza A(H5N1). In MN, these efforts are being led by the Minnesota Board of Animal Health (BAH) and Minnesota Department of Agriculture. MDH partners with these animal health agencies to provide guidance to poultry and dairy workers and responders on personal protective equipment (PPE) recommendations and other workplace precautions while handling affected animals. MDH monitors workers who could be exposed to H5N1 avian influenza, provides testing as recommended, and makes recommendations regarding antivirals.

If a poultry or dairy worker, flock or herd owner, or other person who had close contact with infected animals develops symptoms or is recommended for testing, MDH will help arrange testing and discuss antiviral treatment. This may include MDH reaching out to area health care providers to help with specimen collection and patient evaluation.

For More Information:

- [MDH: Influenza \(www.mdhflu.com\)](http://www.mdhflu.com)
- [MDH: Novel Influenza A \(https://www.health.state.mn.us/diseases/flu/current/novel.html\)](https://www.health.state.mn.us/diseases/flu/current/novel.html)
- [MDH Weekly Influenza & Respiratory Activity \(https://www.health.state.mn.us/diseases/flu/stats/index.html\)](https://www.health.state.mn.us/diseases/flu/stats/index.html)
- [CDC: H5N1 Bird Flu: Current Situation Summary \(https://www.cdc.gov/flu/avianflu/avian-flu-summary.htm\)](https://www.cdc.gov/flu/avianflu/avian-flu-summary.htm)
- [CDC: Information for Clinicians on Influenza Virus Testing \(https://www.cdc.gov/flu/professionals/diagnosis/index.htm\)](https://www.cdc.gov/flu/professionals/diagnosis/index.htm)
- [Board of Animal Health: Highly Pathogenic Avian Influenza Response \(https://www.bah.state.mn.us/hpai\)](https://www.bah.state.mn.us/hpai)
- [USDA: Detections of Highly Pathogenic Avian Influenza \(https://www.aphis.usda.gov/livestock-poultry-disease/avian/avian-influenza/hpai-detections\)](https://www.aphis.usda.gov/livestock-poultry-disease/avian/avian-influenza/hpai-detections)
- [FDA: Updates on Highly Pathogenic Avian Influenza \(HPAI\) \(https://www.fda.gov/food/alerts-advisories-safety-information/updates-highly-pathogenic-avian-influenza-hpai\)](https://www.fda.gov/food/alerts-advisories-safety-information/updates-highly-pathogenic-avian-influenza-hpai)
- [Infectious Disease Lab Forms \(https://www.health.state.mn.us/diseases/idlab/forms.html\)](https://www.health.state.mn.us/diseases/idlab/forms.html)

Questions: Please contact: Anna Strain, Infectious Disease Laboratory Manager, Anna.Strain@state.mn.us or call the lab at 651-201-5200.

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